# The Influence of the Trans-European Transport Networks and European Territorial Cooperation on Cross-Border Transport

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### **Summary**

European economic, social and territorial cohesion is one of the fundamental aims of the European Union (EU). It seeks to both reduce the effects of internal borders and enhance European integration. In order to facilitate territorial cohesion, the linkage of member states by means of efficient **cross-border transport** infrastructures and services is an important factor. Many cross-border transport challenges have historically existed in everyday life. They have hampered smooth passenger and freight flows within the EU.

Two **EU policies**, namely **European Territorial Cooperation** (ETC) and the **Trans-European Transport Networks** (TEN-T), promote enhancing cross-border transport through cooperation in **soft spaces**. This dissertation seeks to explore the influence of these two EU policies on cross-border transport and further European integration.

Based on an analysis of European, national and cross-border policy and planning documents, surveys with TEN-T Corridor Coordinators and INTERREG Secretariats and a high number of elite interviews, the dissertation will investigate how the objectives of the two EU policies were formally implemented in both soft spaces and the EU member states as well as which practical implementations have taken place. Thereby, the initiated **Europeanisation** and **European integration** processes will be evaluated. The analysis is conducted in nine preliminary case studies and two in-depth case studies. The cases comprise cross-border regions funded by the ETC policy that are crossed by a TEN-T corridor. The in-depth analysis explores the Greater Region Saar-Lor-Lux+ and the Brandenburg-Lubuskie region. The cases are characterised by different initial situations.

The research determined that the two EU policies support cross-border transport on different levels and, further, that they need to be better intertwined in order to make effective use of their complementarities. Moreover, it became clear that the EU policies have a distinct influence on domestic policy and planning documents of different administrative levels and countries as well as on the practical implementation. The final implementation of the EU objectives and the cross-border transport initiatives was strongly influenced by the member states' initial situations – particularly, the regional and local transport needs. This dissertation concludes that the two EU policies cannot remove the entirety of the cross-border transport-related challenges. However, in addition to their financial investments in concrete projects, they promote the importance of cross-border transport and facilitate cooperation, learning and exchange processes. These are all of high relevance to cross-border transport development, driven by member states, as well as to further European integration.

The dissertation recommends that the transport planning competences of the EU in addition to the TEN-T network should not be enlarged in the future, but rather further transnational transport development tasks should be decentralised to transnational transport planning committees that are aware of regional needs and can coordinate a joint transport development strategy. The latter should be implemented with the support of additional EU funds for secondary and tertiary cross-border connections. Moreover, the potential complementarities of the transnational regions and transport corridors as well as the two EU policy fields should be made better use of by improving communication. This means that soft spaces, the TEN-T and ETC Policy as well as the domestic transport ministries and the domestic administrations that are responsible for the two EU policies need to intensify their cooperation. Furthermore, a focus of future ETC projects on topics that are of added value for the whole cross-border region or else that can be applied in different territorial contexts is recommended rather than investing in small-scale scattered expensive infrastructures and services that are only of benefit for a small part of the region. Additionally, the dissemination of project results should be enhanced so that the developed tools can be accessed by potential users and benefits become more visible to a wider society, despite the fact that they might not be measurable in numbers. In addition, the research points at another success factor for more concrete outputs: the frequent involvement of transport and spatial planners in transnational projects could increase the relation to planning practice. Besides that, advanced training regarding planning culture could reduce cooperation barriers.

## Kurzfassung

Eines der grundlegenden Ziele der Europäischen Union (EU) ist der wirtschaftliche, soziale und territoriale Zusammenhalt. Zu diesem Zweck sollen sowohl die innereuropäischen Grenzbarrieren abgebaut als auch die europäische Integration gestärkt werden. Wichtige Faktoren für den territorialen Zusammenhalt der Mitgliedsstaaten sind effiziente grenzüberschreitende Verkehrsinfrastrukturen und öffentliche Verkehrsdienstleistungen. Bis heute erschweren jedoch diverse Hindernisse tagtäglich den reibungslosen grenzüberschreitenden Personen- und Güterverkehr innerhalb der EU.

Zwei EU-Politiken, die **Europäische Territoriale Zusammenarbeit** (ETZ) und die **Trans-Europäischen Verkehrsnetze** (TEN-V), sollen dem Ausbau des grenzüberschreitenden Verkehrs durch die Zusammenarbeit in sogenannten ,**Soft Spaces**<sup>•</sup> dienen. Ziel dieser Dissertation ist es, den Einfluss dieser beiden EU-Politiken auf den grenzüberschreitenden Verkehr und die weitere europäische Integration zu untersuchen.

Basierend auf einer Analyse von europäischen, nationalen und grenzüberschreitenden Politik- und Planungsdokumenten, Umfragen unter TEN-V Korridor Koordinatoren und INTERREG Sekretariaten und einer hohen Anzahl von Experteninterviews untersucht und evaluiert die Dissertation, wie die Ziele der EU-Politiken sowohl formell als auch praktisch in "Soft Spaces" und EU-Mitgliedsstaaten umgesetzt wurden. Auf diese Weise werden die potenziell initiierten **Europäisierungs**- und **europäische Integrationsprozesse** bewertet. Im Rahmen der Analyse werden neun Vorstudien und zwei tiefergehenden Fallstudien vorgenommen. Bei den Fallbeispielen handelt es sich um durch unterschiedliche Ausgangslagen geprägte Grenzregionen, die von der ETZ-Politik gefördert und von einem TEN-V Korridor durchquert werden. Dabei werden die Großregion Saar-Lor-Lux+ und die Grenzregion Brandenburg-Lubuskie im Detail untersucht.

Die Untersuchung zeigt, dass die beiden EU-Politiken grenzüberschreitenden Verkehr auf unterschiedlichen Ebenen unterstützen. Sie macht darüber hinaus klar, dass die beiden Politiken mehr miteinander verzahnt werden müssen, um sich wechselseitig optimaler ergänzen zu können. Weiterhin wird deutlich, dass die EU-Politiken die politischen und planerischen Dokumente der verschiedenen nationalen administrativen Ebenen sowie deren Umsetzung in die Praxis in differenzierter Art und Weise beeinflussen. Die schlussendliche Umsetzung der EU-Politikziele und der grenzüberschreitenden Verkehrsinitiativen wird stark durch die unterschiedlichen Ausgangslagen in den Mitgliedsstaaten – insbesondere die regionalen und lokalen Verkehrsbedürfnisse – geprägt. Die vorliegende Dissertation zieht die Schlussfolgerung, dass die beiden EU-Politiken nicht alle Herausforderungen des grenzüberschreitenden Verkehrs meistern können. Es zeigt sich jedoch, dass die EU-Politiken die Bedeutung des grenzüberschreitenden Verkehrs hervorheben und neben der finanziellen Unterstützung von konkreten Projekten die Zusammenarbeit sowie Lern- und Austauschprozesse zwischen den EU-Mitgliedsstaaten fördern. Diese Aspekte sind von hoher Relevanz für die von den Mitgliedsstaaten gesteuerte eigenverantwortliche grenzüberschreitende Verkehrsentwicklung sowie für die weitere europäische Integration.

Die Dissertation empfiehlt, die Verkehrsplanungskompetenzen der EU, zusätzlich zu den bereits bestehenden Kompetenzen im TEN-V Netz, in Zukunft nicht weiter auszubauen. Stattdessen sollte eine weitere transnationale Verkehrsentwicklungsplanung dezentralisiert in transnationalen Verkehrsplanungskomitees, welche die regionalen und lokalen Verkehrsbedürfnisse besser kennen und gemeinsame Verkehrsentwicklungsstrategien leichter steuern können, organisiert werden. Die Umsetzung dieser Strategien würde von zusätzlichen EU-Fördermitteln für sekundäre und tertiäre grenzüberschreitende Verbindungen profitieren. Zusätzlich müssen die potenziellen Komplementaritäten der transnationalen Kooperationsräume und Verkehrskorridore sowie der zwei EU-Politikfelder durch eine verbesserte Kommunikation stärker genutzt werden. Das heißt, dass sowohl die "Soft Spaces" als auch die TEN-V und ETZ-Politik sowie die Verkehrsministerien der EU-Mitgliedsstaaten und die nationalen Verwaltungen, die für die Umsetzung der beiden EU-Politiken zuständig sind, ihre Zusammenarbeit intensivieren müssen. Außerdem wird empfohlen, dass sich zukünftige ETZ-Projekte, anstatt in kleinräumig verstreute, teure Infrastrukturen oder öffentliche Verkehrsprojekte zu investieren, welche lediglich einen Mehrwert für einen

#### Kurzfassung

kleinen Teilraum aufweisen, auf Themen konzentrieren, die entweder für die gesamte Grenzregion von Nutzen sind oder die in unterschiedlichen räumlichen Kontexten angewendet werden können. Die in diesem Zusammenhang erarbeiteten ,Tools' und Ergebnisse sollen - auch wenn sie nicht unmittelbar in Zahlen messbar sind – durch verbesserte Öffentlichkeitsarbeit innerhalb der EU und deren Mitgliedsstaaten sichtbar gemacht und anderen potenziellen Nutzern zur Verfügung gestellt werden. Schließlich zeigt die vorliegende Untersuchung einen weiteren Erfolgsfaktor für konkretere Gewinne auf: Verkehrs- und Raumplaner sollten häufiger in transnationale Projekte eingebunden werden, um den Bezug der Projekte zur Planungspraxis zu erhöhen. Außerdem könnten Barrieren der Zusammenarbeit durch Weiterbildungen im Bereich Planungskultur abgebaut werden.

## Résumé français

La cohésion économique, sociale et territoriale est l'un des objectifs fondamentaux de l'Union Européenne(UE). Elle aspire à réduire à la fois les effets des frontières intérieures et améliorer l'intégration européenne. Les facteurs importants pour la cohésion territoriale des états membres sont l'articulation entre les états membres par des moyens accordés à l'efficacité des infrastructures de transport transfrontalier et de services est un important facteur. De nombreux défis historiques en termes de transports transfrontalier ont au travers du temps gênés les flux de fret et de passagers au sein de l'UE.

Deux politiques européennes : Coopération Territoriale Européenne (CTE) et le Réseau Transeuropéen de Transport (RTE-T), encouragent l'amélioration du transport transfrontalier en coopération au sein des 'soft spaces'. Ce mémoire questionnera l'influence de ces deux politiques sur le transport transfrontalier et leur manière de favoriser l'intégration européenne.

Basé sur l'analyse des politiques et documents européens, nationaux et transfrontalier, enquêté avec le coordinateurs RTE-T corridors, les secrétariats INTERREG, et de nombreuses interviews de dirigeants, le mémoire va examiner l'implémentation des objectifs des deux politiques dans les 'soft spaces' et les membres de l'UE ainsi que le déroulement concret de leurs applications. L'initiale européanisation et le processus d'intégration européenne seront évalués. L'analyse sera conduite en neuf études de cas préliminaire et deux cas approfondis. Il s'agira de cas en régions transfrontalières soutenu par le CTE et traversée par le corridor RTE-T. L'analyse des cas approfondis se déroulera en Grande région Saar-Lor-Lux+ et la région Brandenburg-Lubuskie. Ces cas sont caractérisés par deux situations initiales différentes.

Les recherches ont déterminé que deux politiques européennes de soutiens au transport transfrontalier à différents niveaux ont besoin d'être interdépendantes afin d'être complémentaires et efficaces. Plus que cela, il apparait que les politiques européennes ont une influence notable sur les politiques et documents d'aménagements des différents niveaux administratif et sur leurs mis en œuvre. D'un point de vue pratique, les objectifs de l'UE et les initiatives de transport au-delà des frontières sont fortement influencé par les situations initiales des états – en particulier, les demandes locales et régionales en transport. Ce mémoire conclut que ces deux politiques de l'UE ne peuvent se dissocier des problématiques du transport transfrontaliers. Cependant, en plus des investissements dans des projets concrets, elles promeuvent l'importance d'un transport transfrontalier coordonné et rendent possible la coopération, les processus d'apprentissage et d'échange. Toutes ces raisons montrent la pertinence du développement du transport transfrontalier piloté par les états membres autant qu'à travers une intégration européenne accrue.

Ce mémoire recommande que la compétence en planification de transport de l'UE et du réseau RTE-T ne soit plus élargie dans le futur. Il s'agira plutôt qu'un développement d'un transport transnational, d'encourager une décentralisation vers une planification en comités qui connaissent les besoins régionaux et peuvent coordonner une stratégie de développement de transport. Il faudra ensuite mettre en place avec l'aide des fonds UE nécessaires les connexions transfrontalières secondaires et tertiaires. De plus, le potentiel des complémentarités des régions transnationales et des corridors de transport autant que des deux politiques de l'UE peuvent permettre d'améliorer la communication entre régions. Cela signifie que les 'soft spaces', le RTE-T et le CTE ainsi que les ministères et administrations locales concernées doivent intensifier leur coopération. Par ailleurs, une attention doit être portée sur les futurs projets CTE donnant une plus valu à l'ensemble de la région transfrontalière ou qui peut être appliqué à différents contextes territoriaux plutôt qu'un investissement à petite échelle dispersé dans des structures couteuses et des services qui ne bénéficieront qu'à une petite partie de la région. La dissémination des retombés des projets doit être accru tant bien que les outils développé soit accessible aux utilisateurs potentiels et deviennent visible au plus grand nombre, malgré le fait que cela ne puissent être chiffré. De plus, des éléments de recherches pointent d'autres potentiels concrets de succès : la participation fréquente des aménageurs au sein de projets transnationaux améliorera leurs méthodes et pratiques. En outre, ces collaborations spécifiques contribueront à réduire les barrières de la coopération transfrontalière.

## Lëtzebuergesch Résumé

Eent vun de fundamentalen Ziler vun der Europäescher Unioun (EU) ass déi wirtschaftlech, sozial an territorial Kohäsioun. Dofir solle souwuel déi bannenzeg europäesch Grenzbarrièren ofgebaut ginn, wéi och déi europäesch Integratioun verstäerkt ginn. Wichteg Faktore fir den territorialen Zesummenhalt vun de Memberstaate sinn efficace grenziwwerschreidend Verkéiersinfrastrukturen an ëffentlech Transportservicer. Bis haut erschwéieren ënnerschiddlech Hindernisser dagdeeglech e glate grenziwwerschreidende Passagéier- a Frachtverkéier innerhalb vun der EU.

Zwou EU-Politiken, déi europäesch territorial Zesummenaarbecht (ETZ) an déi transeuropäesch Verkéiersnetzer (TEN-V) sollen der Expansioun vum grenziwwerschreidenden Verkéier duerch d'Zesummenaarbecht a sougenannten "Soft Spaces" déngen. Den Zweck vun deser Dissertatioun ass et, d'Auswierkunge vun deenen zwou EU-Politiken op de grenziwwerschreidenden Verkéier an eng weider europäesch Integratioun ze préiwen.

Baséierend op der Analys vun europäeschen, nationalen an transnationale Politik- a Plangungsdokumenter, Emfroen tëscht TEN-V Korridor-Koordinateuren an INTERREG-Sekretariater, a villen Expertinterviewer, ënnersicht an evaluéiert dës Dissertatioun, wéi d'Ziler vun der EU-Politik souwuel formell wei och praktesch an den "Soft Spaces" an an EU-Memberstaaten ëmgesat ginn. Op dës Manéier ginn déi potenziell an d'Weeër geleeten europäiséierungs- an europäesch Integratiounsprozesser evaluéiert. Am Kader vun der Analys ginn néng Virstudien an zwou méi déifgräifend Fallstudien duerchgefouert. D'Fallstudien si Grenzregiounen, déi sech duerch verschidden initial Situatiounen auszeechnen, déi duerch d'ETZ-Politik gefërdert ginn vun engem TEN-V Korridor duerchquert ginn. D'Groussregioun Saar-Lor-Lux+ an d'Grenzregioun vu Brandenburg-Lubuskie ginn am Detail iwwerpréift.

D'Studie weist, datt déi zwou EU-Politiken de grenziwwerschreidende Verkéier op verschiddene Niveauen ënnerstëtzen. Et ass och kloer ze maachen, datt déi zwou Politiken méi no beienee komme mussen, fir sech géigesäiteg besser ze ergänzen. D'Studie weist och, datt d'Politik vun der EU en Afloss op déi politesch a planeresch Dokumenter vun de verschiddenen nationalen administrativen Niveauë wéi och hir praktisch Ëmsetzung differenzéiert beaflosst. Déi definitiv Ëmsetzung vun den EU-politeschen Ziler an den transnationalen Verkéiersinitiativen gëtt staark beaflosst vun de verschiddene Ausgankssituatioune vun de Memberstaaten - besonnesch regional a lokal Transportnoutwendegkeeten. Déi aktuell Dissertatioun zitt d'Schlussfolgerung, datt déi europäesch Politiken net all déi Erausfuerderunge vum grenziwwerschreidende Verkéier meeschtere kënnen. Et ass awer kloer, datt d'Politik vun der EU op d'Wichtegkeet vum grenziwwerschreidenden Verkéier ageet an nieft der finanzieller Ennerstetzung fir spezifesch Projeten d'Kooperatioun, d'Léier an d'Verhandlungsprozesser tëschent de Memberstaate vun der EU fërdert. Dës vu grousser Bedeitung fir déi selbstverantwortlech grenziwwerschreidend Aspekter si Verkéiersentwécklung, déi vun de Memberstaate verwalt gëtt a fir déi weider europäesch Integratioun.

D'Dissertatioun recommandéiert, datt d'Kompetenz vun der Verkéiersplanung vun der EU, zousätzlech zu de bestoende Kompetenzen am TEN-V-Netz, an Zukunft net weider ze entwéckelen. Amplaz heivu soll eng transnational Verkéiersentwécklungsplanung dezentraliséiert an transnational Verkéiersplangungscomitéë ginn, déi besser wessen, wat déi regional a lokal Verkéiersbedürfnesser sinn a gemeinsam Verkéiersentwécklungsstrategien organiséieren. D'Emsetzung vun dese Strategien géif vun der zousätzlecher EU-Finanzéierung fir sekundär an tertiär grenziwwerschreidend Verbindunge profitéieren.

Zousätzlech mussen déi potenziell Ergänzunge vun den transnationale Kooperatiounsräim an den Verkéierskorridor wéi och déi zwou EU-Politike duerch eng méi effizient Kommunikatioun méi effektiv gemaach ginn. Dat bedeit, datt d''Softspaces'' wéi d'TEN-T an d'ETZ Politiken wéi och d'Transportministèrë vun den EU-Memberstaaten an déi national Administratiounen, déi fir d'Ëmsetzung vun den EU- Politike verantwortlech sinn, hir Zesummenaarbecht intensivéiere mussen. Et gëtt och recommandéiert, datt zukünfteg ETZ-Projeten, amplaz a klengräimeg verstreeten an deier Infrastrukturen ze investéieren, déi nëmmen e Mehrwert fir e klengen Deelraum opweisen, sech op Themen ze fokusséieren, déi fir ganz

Grenzregiounen vun Notze sinn oder déi an ënnerschiddleche räimleche Kontexter kënnen ugewant ginn. D'Tools an d'Resultater, déi an dësem Kontext erreecht ginn, och wa se net direkt miessbar sinn, sollen duerch eng verbessert Ëffentlechkeetsaarbecht an der EU an an hire Memberstaate sichtbar gemaach ginn an anere potenzielle Benotzer zur Verfügung gestallt ginn.

Schlussendlech weist déi aktuell Etude e weideren Erfollegsfaktor fir méi konkret Gewënner op: Verkéiersa Raumplaner sollte méi dacks bei transnationale Projeten agebonne ginn, fir de Bezuch vun de Projeten an d'Planungspraxis ze erhéijen. Zousätzlech kéinten d'Barrièrë vun der Zesummenarbecht duerch d'Weiderbildung op dem Gebitt vun der Planungskultur reduzéiert ginn.

## Podsumowanie

Gospodarcza, społeczna i terytorialna spójność Europy jest jednym z podstawowych celów Unii Europejskiej (UE). Unia dąży zarówno do zmniejszenia barier wynikających z granic wewnętrznych, jak i pogłębienia integracji europejskiej. Dla wzmacniania spójności terytorialnej ważne jest powiązanie państw członkowskich za pomocą skutecznej transgranicznej infrastruktury i usług transportowych. Do dziś istnieje ciągle wiele przeszkód utrudniających płynny przepływ pasażerów i towarów w UE.

Dwie polityki UE, mianowicie Europejska Współpraca Terytorialna (ETC) i Transeuropejska Sieć Transportowa (TEN-T), promują transgraniczny transport poprzez współpracę w ramach tzw. "soft spaces". Niniejsza rozprawa ma na celu zbadanie wpływu tych dwóch polityk UE na transport transgraniczny i dalszą integrację europejską.

Na podstawie analizy udokumentowanych europejskich, krajowych i transgranicznych polityk i planów, ankiet z koordynatorami korytarzy TEN-T i oddziałami INTERREG, oraz licznych wywiadów z ekspertami, rozprawa ta zbada jak cele obu polityk UE są wdrażane oficjalnie i w praktyce, zarówno na terytorium "soft spaces", jak i w państwach członkowskich UE. W ten sposób ocenione zostaną zainicjowane procesy europeizacji i integracji europejskiej. Analiza została przeprowadzona w formie dziewięciu wstępnych i dwóch dogłębnych studiów przypadku. Wstępne studia obejmują różnorodne regiony transgraniczne finansowane z polityki ETC, które przecina korytarz TEN-T. Szczegółową analizą objęty jest region Saar-Lor-Lux+ oraz region Brandenburgia-Lubuskie.

Badania wykazały, że wspomniane polityki UE wspierają transport transgraniczny w różnym zakresie, co wskazuje, że powinny one być wzajemnie ściślej zazębione w celu skutecznego wykorzystania ich komplementarności. Ponadto zaobserwowano, iż te polityki UE wywierają zmienny wpływ na polityki i inicjatywy państwowe w różnych krajach oraz na różnych szczeblach administracyjnych, a także na ich praktyczne wdrażanie. Finalna realizacja celów UE i transportowych inicjatyw transgranicznych jest silnie uzależniona od pozycji wyjściowej, w szczególności co do regionalnych i lokalnych potrzeb transportowych państw członkowskich. Niniejsza rozprawa wnioskuje, że analizowane polityki UE nie rozwiązują całokształtu wyzwań związanych z transportem transgranicznym. Promują one jednak znaczenie transportu transgranicznego; i oprócz inwestycji finansowych w konkretne projekty, ułatwiają współpracę, procesy uczenia się i wymiany. Aspekty te mają duże znaczenie dla transgranicznego rozwoju transportu realizowanego przez państwa członkowskie, a także dla dalszej integracji europejskiej.

Rozprawa ta doradza, aby w przyszłości nie poszerzać kompetencji w zakresie planowania transportu UE ponad dotychczasowe kompetencje sieci TEN-T. Dalsze ponadnarodowe plany rozwoju transportu powinny być zdecentralizowane do ponadnarodowych komitetów planowania transportu, świadomych potrzeb regionalnych i zdolnych do koordynacji wspólnej strategii rozwoju transportu. Ich tworzenie powinno nastąpić przy wsparciu dodatkowych funduszy unijnych na drugo- i trzeciorzędne połączenia transgraniczne. wykorzystywanie potencjału wzajemnej Ponadto optymalne komplementarności regionów ponadnarodowych i korytarzy transportowych, jak również obu analizowanych polityk UE wymaga poprawy komunikacji. To jest, kadry "soft spaces", polityki TEN-T i ETC, krajowe ministerstwa transportu i administracje odpowiedzialne za te dwie polityki UE musza zintensyfikować współprace. Ponadto zaleca się skoncentrowanie przyszłych projektów ETC na inwestycjach, które mają wartość dodana dla całego regionu przygranicznego, lub tych, które mogą być stosowane w różnych kontekstach terytorialnych, w odróżnieniu od drogich porozrzucanych inwestycji na małą skalę, korzystnych tylko dla małej części regionu. Należy również zwiększyć publiczne rozpowszechnianie wyników wdrażanych projektów – mimo iż nie zawsze mają one liczbowy wymiar - aby potencjalni użytkownicy mogli uzyskiwać dostęp do opracowanych narzędzi, a korzyści stały się widoczne dla szerszego społeczeństwa. Badania wskazują też, że zaangażowanie planistów przestrzennych i transportowych w projekty ponadnarodowe przyczynia się do ich sukcesu w konkretnych wynikach, dodatkowo zbliżając realizację projektów z praktyką ich planowania. Szkolenia w dziedzinie kultury planistycznej mają ponadto potencjał przełamywania barier współpracy.

Acknow	wledgementsI		
Summa	ary III		
Kurzfa	KurzfassungV		
Résum	é françaisVII		
Lëtzeb	uergesch RésuméIX		
	nowanieXI		
	tsXIII		
	roduction – Research questions – Methodology1		
1.1	Introduction to the topic, research problem and state of the art		
1.2	Objectives of the study and research questions		
1.3	Methodology		
1.4	Relevance and relation to spatial planning		
1.5	Structure of the dissertation		
Part 1: '	Theory & Policies		
2 Th	eoretical framework: the rationale and influence of European Union policy		
making	g		
2.1	European integration		
2.2	European integration theories		
2.2	.2 Creation of multi-level governance		
2.2	.3 Creation of territorial, relational and soft spaces		
2.2	European integration - importance for this dissertation		
2.3	Europeanisation		
2.3	Dimensions and mechanisms of Europeanisation		
2.3	.2 Reasons for Europeanisation processes		
2.3	.3 Evaluating Europeanisation		
2.3	Europeanisation - importance of for this dissertation		
2.4	Policy making in the European Union		
2.4	.1 The policy cycle		
2.4	.2 Basic principles of policy making in the EU		
2.4	Policy making in the European Union - importance for this dissertation		
2.5	Policy implementation in the EU		
2.5	.1 The policy transfer concept		
2.5 Eur	2 Factors of influence on the results of policy implementation and top-down ropeanisation		

	2.5.3	Measuring policy implementation	56
	2.5.4	Policy implementation - importance for this dissertation	57
	2.6	Derivations to the research framework	57
3	Trar	nsport in and across border regions within the European Union	59
	3.1	European cross-border regions and cross-border cooperation	59
	3.1.1	European borders and cross-border regions	59
	3.1.2	European cross-border cooperation	65
	3.2	Transport across national borders	73
	3.2.1	Importance of transport infrastructure and services across borders for the EU	74
	3.2.2	Challenges of cross-border transport	76
	3.3	Status quo of the EU Transport System	79
	3.3.1	Status quo based on statistical data	80
	3.3.2	Evaluation of the status quo in EU policies	89
4	EU J	policies influencing cross-border transport	93
	4.1	European Transport and TEN-T Policy	93
	4.1.1	Transport policy making & policy characteristics	93
	4.1.2	Fundamental aims of the European Transport and TEN-T Policies	95
	4.1.3	EU transport policies from 1957 until 1999	96
	4.1.4	EU transport policies influencing the funding period 2007-2013	98
	4.1.5	EU financial support 2007-2013	100
	4.1.6	EU policies influencing the funding period 2014-2020	101
	4.1.7	EU financial support 2014-2020	106
	4.1.8	Development of transport policy objectives over the years	107
	4.2	European Cohesion Policy and European Territorial Cooperation	108
	4.2.1	Cohesion Policy making & policy characteristics	109
	4.2.2	Fundamental aims of the EU Cohesion and ETC Policies	111
	4.2.3	EU Cohesion Policy and European Territorial Cooperation from 1957 until 200	0 112
	4.2.4	EU ETC policies influencing the field of transport in the funding period 2007 113	/-2013
	4.2.5	EU Cohesion Policy financial support in the field of transport 2007-2013	115
	4.2.6	EU ETC policies influencing the field of transport in the funding period 2014 116	-2020
	4.2.7	EU Cohesion Policy financial support in the field of transport 2014-2020	118
	4.2.8	Development of Cohesion and ETC policy objectives over the years	119
	4.3	Coordination of EU policy documents influencing cross-border transport in the EU	120
	4.3.1	EU Cohesion and Transport Policy – Differences and similarities	120

4.3.2 transport	Objectives of the TEN-T and ETC policies and their contribution to cross-border between 2007 and 2013
4.3.3 transport	Objectives of the TEN-T and ETC policies and their contribution to cross-border 2014 – 2020
4.3.4 Transpor	Conclusion: coordination of European Territorial Cooperation and Trans-European rt Networks and their contribution to cross-border transport
Interim Co	nclusion I: European Integration, Policies and Cross-Border Transport 129
Part 2: Imp	lementation & Influence139
5 Implem	entation of the ETC and TEN-T Policy in Soft Spaces: Influence on Cross-
Border Reg	ional and Corridor Policies141
5.1 Tra	nsport strategies and objectives of ERDF funded cross-border regions (ETC)
5.1.1	Cross-border cooperation (INTERREG A)
5.1.2	Transnational cooperation (INTERREG B)
	tegies and objectives of the TEN-T priority projects and core network corridors (EU Policy)
5.2.1	TEN-T priority projects (2007-2013)158
5.2.2	TEN-T core network corridors (2014-2020)
5.3 Ove	erlapping cross-border regional and TEN-T corridor policies
5.3.1	Nine preliminary case studies
5.3.2 transport	Mutual influence of the TEN-T corridors and the cross-border regions on cross-border 181
—	entation of European policies in European cross-border regions – on to cross-border transport
6.1 Cho	bice of in-depth case studies of cross-border regions crossed by a TEN-T corridor 189
6.2 The	German transport system
6.2.1	Functioning of the German transport system
6.2.2 regions	German national policy documents influencing cross-border transport in cross-border 195
	in Case Study 1: Greater Region - North Sea Mediterranean Corridor & Atlantic
6.3.1	Initial situation
6.3.2	Functioning of the involved domestic transport systems
6.3.3 transport	Contribution of domestic and cross-border policy transport documents to cross-border and reference to EU policy objectives
6.3.4 documer	Formal influence of EU policy on domestic and cross-border policy transport ats
6.3.5 2007	Practical influence on cross-border transport – facilitated projects and initiatives since 300

6.3.6	Impact of EU policies and funds on cross-border transport - added value?
6.4 M	ain Case Study 2: Brandenburg-Lubuskie– North Sea Baltic Corridor
6.4.1	Initial situation
6.4.2	Functioning of the involved domestic transport systems
6.4.3 transpo	Contribution of domestic and cross-border policy transport documents to cross-border ort and reference to EU policy aims
6.4.4 docum	Formal influence of the EU policy on domestic and cross-border policy transport ents
6.4.5 2007	Practical influence on cross-border transport – facilitated projects and initiatives since 411
6.4.6	Impact of EU policies and funds on cross-border transport - added value?
6.5 Co 46	omparison of the two case studies - influence of EU policies on cross-border transport
6.5.1	Initial situations of the two cross-border region case studies
6.5.2	EU policy influence on cross-border transport development
6.5.3	Conclusion: Influence of EU policies on cross-border transport
Interim C	onclusion II: Influence of EU policies on cross-border transport
Part 3: Co	nclusions & Recommendations
7 Concl	usions: European integration and Europeanisation caused by EU policies in
	usions: European integration and Europeanisation caused by EU policies in f cross-border transport
the field o	
the field of 8 Recon 8.1 Fu	f cross-border transport
the field of 8 Recon 8.1 Fu improve of	f cross-border transport
the field of 8 Recon 8.1 Fu improve of 8.2 O	f cross-border transport
the field of 8 Recon 8.1 Fu improve of 8.2 O Abbreviat	f cross-border transport
the field of 8 Recon 8.1 Fu improve of 8.2 O Abbreviat Figures	f cross-border transport
the field of 8 Recon 8.1 Fu improve of 8.2 O Abbreviat Figures Images	f cross-border transport
the field of 8 Recon 8.1 Fu improve of 8.2 O Abbreviat Figures Images Tables	f cross-border transport
the field of 8 Recom 8.1 Fu improve of 8.2 O Abbreviat Figures Images Tables Curriculu	f cross-border transport
the field of 8 Recon 8.1 Fu improve of 8.2 O Abbreviat Figures Tables Curriculu Appendix .	f cross-border transport
the field of 8 Recon 8.1 Fu improve of 8.2 O Abbreviat Figures Tables Curriculu Appendix .	f cross-border transport
the field of <b>8</b> Recon 8.1 Fu improve of 8.2 O Abbreviat Figures Tables Curriculu Appendix of X.1 EU X.1.1	f cross-border transport
the field of <b>8</b> Recon 8.1 Fu improve of 8.2 O Abbreviat Figures Tables Curriculu Appendix of X.1 EU X.1.1	f cross-border transport
the field of <b>8</b> Recon 8.1 Fu improve of 8.2 O Abbreviat Figures Tables Curriculu Appendix . X.1 EU X.1.1 X.2 Imp	f cross-border transport

X.2.2.2 Transnational cooperation (INTERREG B) clvii
X.2.3 Overlapping cross-border regional and TEN-T corridor policies: mutual influence of the TEN-T corridors and the cross-border regions on cross-border transport
X.3 Implementation of European Policies in European Cross-Border Regions – Contribution to Cross-Border Transport
X.3.1 Contribution of the domestic policies analysed in the two case studies to cross-border transport clxvi
X.3.1.1 National level of Germany clxvi
X.3.1.2 Greater Regionclxviii
X.3.1.3 Brandenburg-Lubuskie ccxiii
<ul> <li>X.3.2 Practical influence on cross-border transport – facilitated projects and initiatives since</li> <li>2007 ccxxxvi</li> </ul>
X.3.2.1 Greater Regionccxxxvi
X.3.2.2 Brandenburg-Lubuskieccxlvi
X.4 List of interview partners ccxlix
X.5 Interview Questions (Example) ccli

# 1 Introduction – Research questions – Methodology

## 1.1 Introduction to the topic, research problem and state of the art

Despite almost 30 years of European cooperation, European Union (EU) policy still considers the European border regions to lack integration (European Commission 2011a, 2). In addition to the different languages, domestic regulations, policies, responsibilities, cultures and practices that divide spatially contiguous territories at the national border (Ricq 2006, 34), inefficient cross-border transport infrastructures and services represent crucial barriers to the desired European territorial integration.

The establishment of the European Single Market enabled the free movement of people, goods, services and capital across the national borders of member states of the European Union (European Commission 2014f). The Schengen Agreement of 1985 additionally facilitated this free movement by abolishing controls<sup>1</sup> when crossing national borders within the territory of the EU (European Commission 2009b). Although the barriers of national borders were intended to be brought down by means of these policies, the effects of the borders are actually still observable, for example, insufficient cross-border (public) transport infrastructures influence the daily life and routine of cross-border commuters and inhabitants of border regions. Further, bottlenecks and inefficient cross-linked transport systems at borders are still the reality within large parts of the EU (European Commission 2011a, 2) with the new member states of the EU in particular being considered to not be efficiently connected (Monti 2010, 65).

In most countries, transport development was originally steered at a national level. National politicians and civil servants defined and managed the maintenance and construction of the main transport infrastructures for their sovereign territory, with the technical support of spatial planners, transport planners, architects or civil engineers (Marshall 2014). This practice worked quite well for many years during times when state borders demarcated national economic activities and when there was no frequent need to cross national borders. The national transport systems were totally independent from those of their neighbouring countries (Ruidisch 2013, 102). Each country had its own administrative and legal structures, traditions, cultures, policies and instruments in the field of spatial and transport planning as well as in the countries' fundamental systems for their demarcated territory. Hence, the countries' legitimacy was bound exclusively to the national territorial boundaries, which kept the countries distinct from each other.

The whole order of the nationally demarcated systems was changed when the idea of a European Community<sup>2</sup> became a reality. European integration led to the development of agreements and policies containing aims for future common development. Since the Treaty of Rome of 1957, European cohesion has aimed to reach between the growing number of member states (Council of the European Communities 1957): regional disparities being minimised in order to ensure the balanced and sustainable development of the EU under the Cohesion Policy (Peters 2003, 322f.). Based on incentives, for example, *European Territorial Cooperation* (ETC), neighbouring member states cooperate across borders to increase integration and strengthen cross-border regions. Thus, the national isolation of the member states had to give way to an opening of the national borders if they were to be able to cooperate. The ETC policy of 2014–2020 supports the minimisation of  $CO_2$  emissions and the removal of bottlenecks in cross-border transport infrastructures (European Parliament and Council of the European Union 2013a, 6, 2013c, 9).

<sup>&</sup>lt;sup>1</sup> Since summer 2015, temporary border controls have been reintroduced in several member states due to a refugee crisis and the related threats to internal security (European Commission 2016b, 2f.). However, a roadmap was prepared in the spring of 2016 to guide a return to the Schengen achievements as soon as possible (European Commission 2016a, 2). As of February 2017, internal border controls still exist in nine countries (European Commission 2017c).

<sup>&</sup>lt;sup>2</sup> Later renamed as the European Union.

The construction of transport infrastructure connections across borders has been seen as a means of creating a Europe-wide network and overcoming national borders. Therefore, it was also decided in the Treaty of Rome to establish a common European Transport Policy (Council of the European Communities 1957, art. 74ff.). That policy should support the establishment of a common market, economic growth as well as the harmonious and competitive development of the EU territory (Council of the European Communities 1957, 2; European Commission 2011a, 3). Since then, there have been ambitious attempts to coordinate the development of important transport axes at a European level, particularly by means of the *Trans-European Transport Networks* (TEN-T), which were introduced in 1992 by the Treaty of Maastricht as a community policy area. The EU committed itself to establish and develop a European transport network as well as to enhance interoperability between the national networks. Additionally, the access of all European citizens to these networks was to be ensured (European Union 1993, 129). The TEN-T core network shall consist of the most strategically important multimodal transport corridors and it concentrates on the main bottlenecks, multimodal knots and crossborder linkages. In the long-term, an efficient additional comprehensive European network shall be put into place (European Commission 2011a, 3).

However, as there is no EU competence in spatial planning, the transport planning instruments that are needed to implement the ambitious European transport goals have not been coordinated within the EU. The responsible national administrations are still not linked across borders and they follow different planning processes and hierarchies despite being charged with similar tasks. As transport and spatial planning have been traditionally bound to national administrative territories, the path-dependent strict territorial demarcation of planning responsibilities and competences remains a challenge (Marshall 2014). Indeed, the jurisdiction and responsibility of transport planners stop at the border. Therefore, inefficient cross-border infrastructures often remain even if the bordering countries are willing to cooperate and jointly plan their transport development (Robert et al. 2001). Additionally, differences in planning cultures complicate coordinated transport development (Giorgi et al. 1999).

Hence, a question remains regarding how the ambitious developed EU policies, that is, *European Territorial Cooperation* and *Trans-European Transport Networks*, contribute to the better coordination of transport planning between member states and thereby, ultimately, to an enhancement of cross-border transport within the cross-border regions of the EU.

This dissertation project embraces a number of research fields:

- EU policy making, coordination and implementation.
- EU Transport Policy, cross-border transport and transport infrastructure.
- EU Cohesion Policy, border regions, cross-border cooperation and soft spaces.
- European integration, Europeanisation and multi-level governance.

Only a few publications have addressed a similar research problem as that considered in this dissertation. These publications will be described briefly in the following paragraphs in order to position the dissertation project at hand in relation to the current state of the art.

The study entitled "**The potential of closing the missing links of small scale infrastructure in Europe's border regions for growth and employment** – **Recommendations for the way ahead**" (Pucher, Weiss, and Schausberger 2016), which was conducted for the Committee of the Region and published in 2016, analyses the potential financial instruments that might be used to practically develop missing small-scale cross-border road and rail connections within the EU. It also relates to the ETC and TEN-T policies. Ten short case studies of cross-border regional transport are analysed. In the end, recommendations are formulated to enhance the development of small-scale cross-border infrastructures. Therefore, it addresses the challenges inherent in cross-border transport development within the European cross-border regions and it thus has a similar focus to this dissertation. However,

the publication neither attempts to analyse the implementation of the two policies nor is it based on a theoretical framework.

A highly relevant publication is a PhD thesis from 2015, namely "Cross-border cooperation in the Fehmarn Belt Region: A political integration perspective" (Guasco 2015). Guasco investigates a case study from the Fehmarn Belt cross-border region, which is crossed by a TEN-T priority project. The aim is to define the influence of such large-scale investment and strategy on cross-border cooperation at a subnational level as well as regional integration. Guasco focuses on the influence of the TEN-T policy on the governance structures and actors involved in cross-border cooperation. The structural challenges that exist in the establishment of common cross-border transport policies are also investigated. The theoretical framework is based on the concepts of multi-level governance and policy networks, and it discusses the relation between actors and territory within cross-border cooperation. This also involves the relation between policy-making, planning and governance. The methods used are literature and data analysis, interviews and observations. The work does not take into account the coordination of the Cohesion Policy and Transport Policy, and it does not apply an implementation analysis of both EU policies on cross-border transport in practice. Instead, it analyses the impact on cross-border governance and the cooperation structures within one border region. Additionally, the main analysis focuses on only one case and it does not include a comparison with other cross-border regions that might show totally different development. This is a very valuable and interesting study that contributes to the research realm. The present dissertation project will build on some of Guasco's findings on cross-border (transport) planning and governance.

In his doctoral thesis, "Towards a 'Europe of Flows'? Discourse, power and space in the development of a transnational high-speed rail line in the European Union" (Garcia Mejuto 2015), Garcia Mejuto investigates the territorial impact of the development of a transnational rail line. The study is based on a discourse analysis, power theories and discussions concerning scale and relationality that have been applied in the Basque Country in Spain. It investigates the political discourse on different levels as well as the impact on the policy process (ibid.). This study is very relevant as it combines research on policy making and transnational infrastructure planned at an EU level and it reveals the difficulties in the implementation. It also questions the right level of planning for such an infrastructure. However, it does not analyse the impact of the EU Transport and Cohesion Policy on a cross-border transport case, but rather the situation within one administrative region.

The publication entitled "**The European Union and Major Infrastructure Policies: The Reforms of the Trans-European Networks Programmes and the Implications for Spatial Planning**" (Marshall 2014) by Marshall analyses the relation between the growing EU competence in transport development and spatial planning at a regional level. It discusses the final revision of the Trans-European Networks in transport and energy that envisages the determination of the transport development for the whole EU territory by defining priority projects of 'European interest' and mapping out European corridors within a 'core network'. He expects that these EU plans will have a strong impact on both spatial planning and transport development. This process is analysed against a background of changed governmental processes on the part of member states ('rescaling' and 're-ordering') and sectoral decision making. There is a special focus on the European macro-regions whose subregions might suffer from an even more complicated implementation of the policies (ibid.). With this analysis, the publication evaluates the impact of the EU TEN-T policy on the member states' governmental power and spatial planning, which is very valuable. It combines transport and spatial planning and follows a top-down impact approach. However, it does not focus specifically on cross-border transport and cooperation beyond the macro-regional strategies.

In his dissertation project entitled "How international borders affect local public transport: Analyses and evaluations of cross-border agglomerations in Switzerland, France and Germany" (Barth 2014), Barth investigates the border effect on local public transport within large and highly dense agglomerations that are divided by national borders. The challenges are analysed and potential solutions are developed. The study focuses on the cross-border metropolitan regions of Basel and Geneva that involve Germany, France and Switzerland. A literature review investigates the particular border context seen in such cross-border agglomerations, the organisation of local public transport and the development of cross-border transport services. The other methods used include surveys and a spatial analysis based on a geographic information system (GIS) (ibid.). The study focuses on cross-border transport and public transport in larger agglomerations, but it does not take into account EU policies and their implementation and influence on cross-border transport. Nor does it discuss concepts related to EU policy making and implementation. Still, it presents the status quo as well as the problems of cross-border transport in a special setting and it is therefore very valuable.

In his PhD thesis, "The Corridor Chronicles - Integrated perspectives on European transport corridor development" (Witte 2014), Witte investigates the added value of the development of an integrated European transport corridor, that is, taking into account the multiple layers involved when developing a transport corridor besides the transport itself (e.g. social integration, environmental protection and the integration of the different administrative levels). He analyses how the management of the development at a transnational level contributes to a more effective implementation than planning at a local level (ibid., 23). He also analyses the effects of European transport corridors - as a spatial concept facing current trends such as globalisation - on governance practices (ibid., 24). The dissertation project analyses different conceptualisations of corridors and evaluates the effects of transport bottlenecks. Furthermore, the economic effects of transport corridors at the regional level are investigated in an empirical analysis, while the influence of spatial development in the vicinity of the corridor on the latter's development is illustrated based on a regression analysis (ibid., 25,29). The thesis focuses on a single case study, namely the transnational Corridor 24 Rotterdam-Genua (ibid., 24.30), which has recently been designated as the Rhine-Alpine TEN-T Core Network Corridor. In the case study analysis, expert interviews are conducted on different levels of the corridor (ibid., 28). The focus is on inland port challenges in the transport corridor and the effect on the cities associated with the port (ibid., 29). The publication focuses more on large-scale transport development and less on local crossborder transport. The corridor conceptualisation is very interesting and it will be taken up in this PhD thesis.

The INTERREG IV B project "**BSR TransGovernance**" (BSR TransGovernance 2013) developed a report that evaluated the potential support offered by ETC projects funded in the Baltic Sea Region for national transport planning and developed recommendations for increasing the projects' added value in that context. The findings are based on interviews and workshops conducted during the project with a focus on Sweden and Finland. It is argued that the ETC projects need to be better linked to the national transport administrations in order to ensure the implementation and usage of the projects' results in planning practice. The report refers to the TEN-T as a 'fixed planning space' together with the domestic planning territories and it contrasts them with the soft planning spaces that have developed within the EU. ETC is seen as a potential means of linking both planning approaches (ibid., 4ff.). The report tackles several aspects that are relevant to this dissertation as well. Therefore, the findings of the "BSR TransGovernance" project are compared with the findings of this research project in the second interim conclusion.

Dörry and Decoville argue in their publication "Governance and transportation policy networks in the cross-border metropolitan region of Luxembourg: A social network analysis" (Dörry and Decoville 2013) that there is a stronger need for cross-border public transport within metropolitan cross-

border regions, since the importance of the accessibility of those regions has grown and the EU aims of cohesion and removal of borders have been further promoted. In this context, they analyse the existing governance structures in the border and metropolitan region of Luxemburg in the field of cross-border public transport. This region is strongly influenced by transport flows of working commuters. One quarter of over 80,000 daily commuters use public transport. The theoretical framework is based on policy networks and multi-level governance, while the methods used are social network analysis and surveys (ibid.). This dissertation project combines several important theories within a case study concerning the governance of cross-border transport. It focusses on the organisational structure of actors within this area, but not predominantly on EU policy implementation in the field of cross-border transport.

In 2000, in "Euroregions: Strategies of Institution-Building in the New European Polity", Perkmann analysed Euroregions as an example of the institutionalisation of cross-border cooperation. He discusses these new structures as a European polity approach. His theoretical framework is based on the concepts of policy networks, multi-level governance and EU Cohesion Policy. He applies a comparative approach with several case studies (Perkmann 2000). Therefore, his contribution is very valuable, since he combines several concepts that are also relevant to this thesis. However, the transport dimension is missing and he does not focus his analysis on the implementation of EU policies, which this dissertation project will do.

Under the title "**Ex post evaluation of Cohesion Policy 2007–2013 - Work Package 5 Transport**", AECOM Limited conducted an impact analysis of the funding period of the Cohesion Policy (2007–2013) as well as the impact on transport infrastructure within the EU. It analyses all the different funding sources of the Cohesion Policy, not solely the ERDF. The study mainly focuses on the financial distribution to different transport-related topics and other statistical data based on predefined output indicators. The aims of the study are to identify the main contribution of the Cohesion Policy to transport development and the contribution to the comprehensive TEN-T network as well as to develop solutions to handle the weaknesses of the Cohesion Policy and European transport development. However, it is not as yet finalised and it solely focuses on financial investments related to the Cohesion Policy. It does not analyse the implementation of the content of EU policies and theoretical concepts of European policy-making.

Furthermore, the Directorate-General for Mobility and Transport (DG Move) of the European Commission regularly invites research tenders to evaluate the impact of its policies. Recently, there were tenders on "Studies on TEN-T core network corridor and support of the European coordinators" (2015) and "Permitting and facilitating the preparation of TEN-T core network projects in particular waterborne projects and cross-border projects" (2014). Both involve the subtask of analysing the cross-border transport sections in the respective projects. Thus, there is significant interest at the EU level in evaluating the influence of its policies on cross-border transport and improving the implementation of its aims.

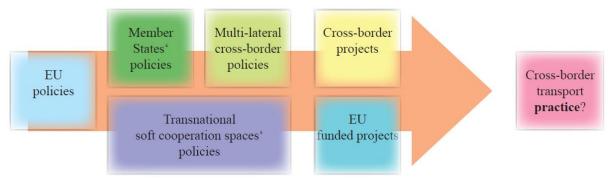
## 1.2 Objectives of the study and research questions

The present dissertation aims to contribute to the interests of the EU by validating the hypothesis of direct causality between the EU policy aims of *European Territorial Cooperation* (ETC) and the *Trans-European Transport Networks* (TEN-T) and the improvement of cross-border transport. It will also determine the extent to which the two EU policies can be seen as a catalyst and initiator of the enhancement of cross-border transport. Thus, it will investigate whether they have contributed to the better interconnection of the national transport networks and thereby to the further removal of inner European barriers between member states. The research is limited in terms of territory to the analysis of cross-border regions within the EU and sectorally to transport infrastructure and services. A full analysis

of the impact of the two policy fields would extend beyond the scope of this thesis. Therefore, the EU policies of two consecutive funding periods, 2007–2013 and 2014–2020, are investigated and compared time-wise. Additionally, both policy fields are compared content-wise and in terms of their development and interrelation over time.

According to relevant **European integration** theories, the development of EU policies has led to further integration. Depending on their competences, the EU institutions have influenced the member states in either a coercive or a soft manner (Bartolini 2009, 185ff.). New transnational objectives and obligations as part of EU policies – aiming at the linkage of the formerly demarcated domestic transport infrastructures across the member states' administrative boundaries – have been introduced, which have a potential influence on the transport sector. Besides that, EU policies have fostered the development of cross-border **governance** and **soft cooperation spaces** – in the form of corridors and cross-border regions – in order to overcome the traditional administrative responsibilities (Perkmann 2007; Ruidisch 2013). This territorial approach might represent a means by which cross-border transport can be developed in a more flexible and efficient way. Additionally, the EU offers financial incentives to ensure the implementation of its TEN-T and ETC aims. Thus, there are many external influences that have attempted to affect the originally isolated and shielded national systems so as to achieve further European integration.

The concept of **Europeanisation** describes the processes that take place as a consequence of the EU's existence (Lenschow 2006, 57ff.). In this context, EU policies are expected to have an effect on the member states. This top-down influence will be investigated in more detail in this dissertation project on different levels (see **Figure 1**).



#### Figure 1: Levels of investigation of the top-down influence of EU policy

#### Source: Author, Kaiserslautern, 2017.

As the degree of European integration is often said to depend on the individual member states, the formal influence of the EU policies' objectives on the policies of different member states' subsequent administrative levels is first analysed. Second, the formal influence on cross-border policies is analysed. In parallel, the formal influence of the two EU policies on the objectives of the EU-promoted transnational soft cooperation spaces is investigated. Furthermore, the practical influence of non-EU-funded and EU-funded projects on cross-border transport is explored and contrasted. Finally, the impact on the cross-border transport practice – involving at least two different member states – is evaluated. Are the EU aims realised in practice within border areas? Do the EU policies indirectly (i.e. besides EU-financed support) lead to the formulation of border-regional initiatives and projects? Additionally, the interactions between the different levels of policy implementation will be investigated.

The implementation analysis is conducted using a two-tiered approach. First, the implementation of the policies in the EU's tailored soft cooperation spaces is explored by analysing the individual policy-strategies' transport aims for all cross-border and transnational cooperation regions and transport

corridors.<sup>3</sup> This is followed by an analysis of nine preliminary case study ETC-cross-border regions that are each crossed by one of the nine TEN-T corridors. The existence of potentially mutually complementary strategies due to the territorial overlap is also investigated.

Second, two of the nine case studies are chosen for an in-depth case study analysis. The first case focuses on the cross-border region Greater Region Saar-Lor-Lux+, which is crossed by the North Sea Mediterranean and Atlantic TEN-T Corridors and hence represents established cooperation between old/core European member states. The second case study comprises the cross-border region Brandenburg-Lubuskie, which is crossed by the North Sea Baltic TEN-T Corridor and exemplifies the relation between a new member state and an old member state of the EU. The two cases show different initial situations, but they are subject to the same external EU policy influence factors. Whether or not these differences lead to distinct EU policy implementation and influence – as predicted in the Europeanisation, policy transfer and implementation scientific literature – will be investigated. The focus on only two cases makes it possible to conduct an in-depth analysis of the policies' influence, taking into account the initial situation of the domestic and cross-border policy levels of all the member states involved in the two cross-border regions as well as the cross-border transport reality. Based on the findings, the opportunities and challenges that exist when promoting cross-border transport at the EU level will be evaluated.

Thus far, the implementation problems related to the TEN-T policy are said to have existed alongside others due to a lack of coordination between the member states and the absence of a common financing framework (European Commission 2011a, 3). The current funding period, which began in 2014, includes new guidelines on the TEN-T. In addition, it introduces a new funding instrument, namely the 'Connecting Europe Facility', which should improve and secure the financing of the implementation of the TEN-T (ibid., 6). Additionally, the coordination of the Cohesion and Transport Policies and their respective funds was said to be in great need of improvement (Commission of the European Communities 2009a, 14; European Commission 2011c, 14, 2011a, 2). Both policies aim to influence cross-border transport. In this context, the dissertation project explores the character of the two policies and evaluates the mutual coordination of the ETC and TEN-T policies as subfields of the Cohesion and Transport Policies. In general, all EU regulations concerning the new funding period as well as those concerning the ETC have a stronger and more restricted focus on eligible topics in order to concentrate the financing and thereby achieve better results. Additionally, the new EU policies strongly focus on the fulfilment of the goals contained within the Europe 2020 strategy (European Commission 2014a). As part of the implementation analysis, it will be determined whether the new policy framework is more efficient and has a stronger lasting effect on cross-border transport within the EU than the old policies for the funding period 2007–2013.

As the final output of the study, recommendations are developed for potential new orientations for the EU policies so as to effectively enhance cross-border transport.

During the course of the study, the following research questions will be answered:

- How do European integration and Europeanisation contribute to the improvement of cross-border transport within the EU?
- Which EU policies and financial support mechanisms have been developed to support cross-border transport across national borders and between border regions? What is the character of these policies? How are they coordinated?
- To what extent can European policy making in the form of the TEN-T and ETC policies contribute to cross-border transport and hence to further European integration by promoting cross-border governance, soft

<sup>&</sup>lt;sup>3</sup> Respectively, the priority projects between 2007 and 2013.

cooperation spaces and the better interconnection of national transport networks as well as by offering financial incentives?

- How are the TEN-T and ETC policy objectives implemented in soft spaces, that is, the TEN-T corridors' policies and ETC cross-border regional policies? How do the soft spaces' policies mutually influence each other when their territorial boundaries overlap? Does the creation of soft spaces by the EU contribute to the more effective implementation of the EU's transport objectives?
- How do the EU's transport-related policies influence both the domestic policies of member states and crossborder cooperation? How do the initial situations of the member states influence the policies' impact? Which factors affect the influence of the EU policies on cross-border transport? Has the influence of the EU policies changed during the new EU funding period (2014–2020)?
- How do the ETC and TEN-T policies influence cross-border transport practice when compared to domestic initiatives?
- How should the two EU policies be oriented in the future in order to effectively enhance cross-border transport?

## 1.3 Methodology

This dissertation project applies a mixed-methods approach. After an initial literature review and policy document analysis, case studies are conducted. These are combined with, respectively, a policy and implementation analysis, and they are based on oral interviews, written surveys as well as the analysis of statistical data and policy documents. Two case studies are analysed in depth and then compared in order to generalise the results. This is followed by an evaluation of the influence of EU policies on cross-border transport.

The **literature review** and **analysis** focus on the topics of European integration, Europeanisation, EU policy making, policy implementation, cross-border regions, territorial cooperation, European (cross-border) transport, its historical development and the respective EU policies. The theoretical premises and key literature are based on scientific papers, magazines, studies and scientific literature in general as well as political and legal EU documents. The main objectives of the EU transport policies are identified and compared. Based on these, a criteria list of objectives is developed to check whether the later analysed national and cross-border policies have adopted the identified objectives (see **Table 1**).

Furthermore, European databases and the internet are examined. Following the review of the literature, the basis for the further investigation and the theoretical framework of the dissertation project are developed.

The **policy implementation analysis** method deals with the implementation as well as the impact of policies (Jann 2009, 478). It is a form of policy analysis. The policy analysis has its basis in the political sciences. Politics can be described as a sequence of certain steps that ends with the production of a binding policy after having identified a 'problem' at the beginning of the process (Jann and Wegrich 2003, 71). A policy analysis deals with the contents of policies as well as their formulation, implementation and influence. It additionally analyses the surrounding policy structures and processes (Jann 2009, 478). Policies are developed through a long process involving different phases: the so-called 'policy cycle' (see **chapter 2.3.1**). The policy analysis conducted in this dissertation project first analyses the contents of selected policies at the EU level. It then focuses on the **implementation** of these policies, including an analysis of how selected European policies have been implemented in the member state and subnational policies based on the concept of top-down Europeanisation. Thus, the objectives of the EU policies are compared to the implemented policies' impact (see **chapter 2**). Additionally, the influence on cross-border transport practice is evaluated. During the implementation phase of the policy cycle, the programme is interpreted first before it is put into practice. Depending on the interpretation, the original intentions of a programme are not necessarily implemented. The implementation phase is

often seen as the most important phase, which determines the success of a given policy (Jann and Wegrich 2003, 89).

Transport infrastructure network		
Remove barriers, improve efficiency		
Linking TEN-T and secondary networks		
Relieve routes/fighting congestion		
Intermodality/interoperability		
Intelligent transport systems		
Freight corridors		
New technologies/innovations (research)		
Improving mobility of freight		
Improving mobility of passengers		
Accessibility of remote areas		
Connecting neighbouring/new member states		
Cross-border infrastructures		
User-friendliness		
Transport services		
(Urban) public and soft mobility		
Transport safety		
Cross-border services		
Environmental and sustainability issues		
Alternative modes of transport		
Alternative fuels/climate change		
Minimising environmental harm		
Sustainable transport		
Exchange of practices/better coordination		
Source: Author, Kaiserslautern, 2017.		

Table 1: Transport objectives criteria list for the policy document analysis

A **top-down policy impact analysis** is applied. This dissertation project is based on an ex-post analysis of policy implementation. Thus, the policy implementation process is not to be analysed. Instead, the impact of the policy is to be explored. The extent to which the domestic policies are in line with the EU policies will be evaluated. The analysis begins with an exploration of the characteristics of the two EU policies investigated as well as a presentation of the European objectives, strategies and planned actions. Second, the impact of these policies in terms of formal and practical implementation is analysed. Hence, policy documents at a domestic level as well as the practice (in the form of projects and the status quo) are to be analysed. Furthermore, it will be determined whether ideational<sup>4</sup> learning processes have taken place in addition to those promoted by the European financial incentives. The policy implementation analysis is conducted in two in-depth case studies with five different member states. The member states all present different initial situations; therefore, the EU policy implementation might have taken place to different degrees. This is why the influence of the initial situations in which the policies were applied will be explored.

**Case studies** explore the conditions and context of a case, since they are considered to be relevant for the appearance of the entity of interest (Yin 1994, 13). Thus, case studies are used to conduct a detailed and comprehensive study of a certain entity. This entity is regarded as a whole and it is not subdivided into several parts. Case studies can be applied to explore uninvestigated issues in pilot studies in order to illustrate the practice, establish correlations and derive assumptions (Häder 2015, 357). In this study, the case studies are conducted to validate the established hypotheses concerning the influence of EU policies on cross-border transport. As case studies usually apply several approaches to collect and

<sup>&</sup>lt;sup>4</sup> Ideational learning processes take place before a policy has been adopted (see more in chapter 2).

analyse data, the researcher needs to have the knowledge necessary to conduct all these methods (Häder 2015, 358; Yin 1994, 13).

Before conducting a case study, the goal of the study and the hypotheses needed to be defined (Yin 1994, 13; Ellet 2007, 27). These hypotheses are to be tested against evidence during the study and they must be verifiable by the data accessible in the case (Ellet 2007, 27). All relevant influence factors are to be taken into account (Häder 2015, 358). The aim of the case studies in this dissertation is to analyse the formal and practical influence of the two EU policies on both domestic policies and the cross-border regions, including their transport infrastructures and services.

In a first step, nine preliminary case studies are conducted in cross-border regions (see Table 2).

This high number of cases is explored in order to minimise the risk of deviant cases. Further, the significance of the results will be enlarged and the generalisation of the findings will be more applicable. The choice of case studies was based on a developed criteria list (see **chapter 5.3**). The case studies are all conducted in a cross-border region that is crossed by a TEN-T corridor. Additionally, they have all benefitted from European financial support through territorial cooperation projects. This ensures that the case study areas are in contact with both EU policy fields to be analysed. Of the nine cases, two case studies are chosen for an in-depth analysis. It was decided to choose two cases with a different initial situation in order to investigate whether the initial situations have an influence on the policy implementation, as argued by several international scholars (Jordan 1999; Hartlapp and Falkner 2009; Radaelli 2000b). As the European cross-border regions have very different characteristics, the EU policy influence might differ strongly. By analysing two distinct cross-border regions, these differences can be taken into account and included in the overall evaluation of the EU policies' influence on cross-border transport. Thus, the results can be generalised and universalised to a higher degree.

Table	Table 2. Over view of the inne premininary case studies			
01	Spain – Portugal (POCTEP)	& Atlantic Corridor		
02	Slovenia – Austria	& Baltic Adriatic Corridor		
03 France – Italy (ALCOTRA) & Mediterranean Corrido		& Mediterranean Corridor		
04	Germany/Brandenburg – Poland	& North Sea Baltic Corridor		
05	France – Belgium – Germany – Luxemburg (Greater Region)	& North Sea Mediterranean C.		
06	Austria – Hungary	& Orient East Med Corridor		
07	Germany – The Netherlands	& Rhine Alpine Corridor		
08	Slovakia – Hungary	& Rhine Danube Corridor		
09	Finland – Estonia – Latvia – Sweden (Central Baltic)	& Scandinavian Mediterranean C.		
Source: Author Keiserslauters 2017				

Table 2: Overview of the nine preliminary case studies

Source: Author, Kaiserslautern, 2017.

The analysis of the nine cases of border regions that are explored during the first analytical step is based on a quantitative analysis of policy documents and a written survey. To analyse the two in-depth case studies, several methods are applied. Qualitative methods are very useful in the in-depth analysis of case studies, since they allow a high level of detail and information on a specific case. The use of standardised methods is said to not be relevant because a detailed qualitative analysis compensates for possible lower percentages of reliability and objectivity (Häder 2015, 358). However, a certain level of standardisation is important in this dissertation project because it is easier to compare and evaluate standardised interviews. The data concerning the influence of European transport policies at both a local and a regional level analysed in the case studies were derived from interviews, questionnaires observations on field trips, written surveys as well as from policy documents and statistical reports on the cross-border regions.

As indicated above, **written surveys** were conducted via email to analyse the initial nine case studies. The interviewees addressed were the transport corridor managers and the respective INTERREG Secretariats of the cross-border regions. The answers provided in the completed questionnaires will contribute to an evaluation of the influence of the transport corridor and ETC/INTERREG A cooperation

areas on cross-border transport. Furthermore, the degree of mutual affectation between both soft spaces based on their overlapping will be analysed. Written surveys are not influenced by the interviewer because the interviewee completes the survey on his or her own. Afterwards, he or she sends the questionnaire back to the sender. Compared to oral interviews (as described below), written surveys are more anonymous, can be conducted much faster and require lower costs and effort to conduct. Moreover, the interviewees can decide when to complete the questionnaire and they can take as much time as they need to do so (ibid., 193).

The questionnaire was fully standardised, that is, the questions as well as the answers were predefined. This should contribute to a clearly guided interview (ibid., 195), which is of high importance for the later comparability, especially in the absence of an interviewer. A few exceptions were made: some open questions allowed the interviewee to make comments that he or she would address to the interviewer in oral interviews. The questions were formulated clearly and neutrally in order to increase the comprehensibility of the questions so that the interviewees could understand the questions in the same way (ibid., 205). In the end, 11 of the 18 invited stakeholders completed the questionnaire.

After the general and mostly quantitative analysis of the nine cross-border regions, **two** regions were selected in a second step – based on a criteria catalogue (see **chapter 6.1**) – for an in-depth quantitative and qualitative analysis of the EU policy implementation, namely the *Greater Region Saar-Lor-Lux*+ (FR-BE-LUX-DE) and *Brandenburg-Lubuskie* (DE-PL). As stated above, the two case study cross-border regions strongly differ in terms of their internal initial situation, although they are subject to the same external EU policy influence factors. The findings of the two case studies are compared in order to derive the dependencies in the case of different policy implementation in the two cases (for more on comparative studies, see below).

First, a quantitative analysis is conducted in which national and cross-border policies related to transport development are identified for a **document analysis**. The aim of the analysis is to explore the EU policies' influence on domestic institutions (i.e. in this case, the <u>domestic policy documents</u> that refer to transport), since the domestic situation is said to influence the EU policies' practical implementation. Particularly in the case of spatial and transport planning, a high path dependency is expected, which might hinder the implementation of EU policies as well as cooperation across borders. Furthermore, <u>cross-border policy documents</u> are investigated.

First, the policy documents' relation to the general EU transport policy objectives, as depicted in **Table 1**, is explored. The occurrence of each objective is investigated one after another and then noted in a database. For further statistical reasons, data concerning the type of the policy documents – differentiating between transport, spatial planning, environmental and development-related policies as well as documents designed in agreement with the EU – are collected. Additionally, it is noted whether the policies have a specialised focus on one transport component (e.g. freight transport) as well as during which EU funding period the policies were developed.

Due to the high number of policy documents (n=180), they are explored by searching for keywords related to transport in the respective languages (see **Table 3**).

When a keyword is detected, the paragraph containing it is analysed and empirical data are collected. Additionally, the policy documents are searched, especially in respect of their reference to cross-border transport and the TEN-T. Therefore, in the analysis, the focus is on the occurrence of the following EU objectives:

- Linking the TEN-T and secondary networks.
- Improving cross-border infrastructures.
- Improving cross-border services.

English	German	French	Polish	
		transport	transport	
transport	Verkehr	relation	komunikacja	
		circulation	ruch drogowy	
infrastructure	Infrastruktur	infrastructure	infrastruktura	
mobility	Mobilität	mobilité	mobilność	
moonity		déplacement		
accessibility	Erreichbarkeit	accessibilité	dostępności	
			sieci transeuropejskie	
TEN-T	TEN-V	RTE-T	transeuropejską sieć	
I EIN-I			transportowa	
			TEN-T	
network	Netz	réseau	sieć	
traffic	Verkehr	trafic	ruch	
connection	Verbindung	relation	połączenia	
(local) public	ÖPNV	transport public (local)	komunikacja	
(local) public transport			publiczna/zbiorowa	
transport			transportu publicznego	
cross-border	grenzüberschreitend	transfrontalier	transgraniczne	
bottleneck	Engpass/Flaschenhals	goulot	wąskich gardeł	
corridor	Korridor	corridor	korytarz(e)	
fuel	Kraftstoff	carburant	paliw(a)	
international	international	internationale	międzynarodowy	
passenger transport	Personenverkehr	transport de passagers	transport osobowy	
freight transport	Güterverkehr	transport de marchandises	transport towarowy	

Table 3: Keywords for the policy document analysis

Source: Author, Kaiserslautern, 2017.

These objectives particularly relate to cross-border transport. The linkage of the TEN-T and secondary transport connections is considered to be potentially relevant to cross-border regional transport because subnational infrastructures are connected to the TEN-T cross-border connections, which increases the accessibility of the TEN-T for cross-border regions.

The statistical analysis of the gathered quantitative data consists of three main parts. First, the number of documents that refer to cross-border transport and the TEN-T without necessarily defining their improvement as a policy objective per administrative level and country is depicted.

Second, the relevance of all the different EU policy objectives (see **Table 1**) in the domestic and crossborder policy documents is analysed per administrative level and country. To be able to derive more reliable EU influence tendencies from the domestic and cross-border policy documents, the relevance of <u>all</u> transport-related EU objective categories is taken into account – besides those categories mainly relevant to cross-border transport – when evaluating the influence of the EU policies on the contribution of the different domestic administrative levels' policies to cross-border transport.

The relevance of the objectives contained in the domestic and cross-border policies is compared to each policy objective's general relevance within the EU policies at a supranational level. Further, the degree of deviation from the promotion of the objectives in the EU policies is calculated. The policy documents from the different countries and administrative levels are differentiated. This is done by comparing the percentage of domestic and cross-border documents that defined these objectives with the percentage of the 15 European Transport and Cohesion Policy documents analysed in **chapter 4** that defined these categories as an objective. When speaking of the deviation in the percentage, the total difference is meant, not the relative one  $(\Delta \% = |x\% - y\%|)$ . Therefore, the aim is to evaluate the potential influence

of the promotion of these aims in the EU policies on the different administrative levels' domestic documents and cross-border policy documents.

It must be kept in mind when considering the analytical results that the evaluation of the relevance of an EU objective relies on the percentage of policy documents that named the given objective. The frequency with which the documents mentioned an objective is not investigated, since this would be too time-consuming for the present dissertation because it is not the main focus of the work.

Third, whether (and if so, which) concrete cross-border transport projects were named by the policies is explored.

The interpretation and comparison of the member states' policy documents shows some **risks** that one needs to be aware of. These are presented in the following paragraphs.

When choosing the domestic and cross-border policy documents, the sole premise was that the documents relate to and influence transport development. Thus, not only pure transport policies were to be analysed, but also policies from other sectors. As the countries produced different relevant policies, the character and **mix of sectoral policies** varies at each administrative level, which could have an influence on the policies' overall contribution to the EU transport policies' objectives. Therefore, at the beginning of each level's analysis, the composition of the policy documents is presented and this is taken into account during the evaluation. Five categories are differentiated: pure transport documents; spatial planning documents; documents developed in cooperation with the EU (i.e. common national reference frameworks, domestic Operational Programmes and Partnership Agreements); environmental policies (including policies on energy, climate change and sustainability); and general development policies that do not demonstrate a special focus but instead describe political strategies for future development. Additionally, some policy documents could not be clearly matched to one category, that is, some documents concerned spatial planning and transport policies. In such cases, an additional category was added.

The number of domestic policy documents that were analysed is mostly comparable between the countries; however, the same number of documents was not available at the different administrative levels. In particular, a **low number of subregional policies** existed. Thus, this needs to be taken into account when comparing the percentage contribution to the EU objectives.

At the same time, the 'age' of the documents varies strongly – some were very old but still in place. Further, two no longer valid subregional policies were analysed because no newer plans were available, while other policies were very new. The age was taken into account when comparing the influence of the two EU funding periods on the documents.

The policy documents also have different **natures** in terms of their implementation. Some were informative, others binding for the lower levels, etc. Still, all present the policy discourse and promote certain transport-related aims, which is most relevant for this dissertation project.

As stated above, the relevance of the EU policies' objectives is evaluated based on the number of EU policies that relate to those aims. However, how often the aims were mentioned within these policy documents is not taken into account. This needs to be kept in mind.

Additionally, an attempt is made to evaluate the influence of the domestic administrative levels' policies on the lower levels by comparing the relevance of the objectives. Here, it needs to be taken into account that the objectives might differ because at the lower administrative levels, other topics are more relevant according to their competences and needs rather than a low top-down influence.

Furthermore, the higher influence of one country on the cross-border policies cannot be effectively proven because the national attitude to cross-border transport can be different in national and cross-

border policy documents. Therefore, the comparison of the attitudes in the other transport-related objectives is also taken into account in order to evaluate the countries' influence on the cross-border policies' objectives.

Moreover, the evaluation of EU policy influence on the different policy documents cannot be proven conclusively, since their objectives might have been developed based on a different influence.

Therefore, the collected document analysis results are matched with information collected during the 55 qualitative oral expert interviews. Here, domestic stakeholders from the member states involved in the cross-border region were contacted. Stakeholders from the national, regional and subregional administrative levels who are responsible for transport, spatial planning and cross-border cooperation as well as several transport providers were interviewed. Additionally, stakeholders from the cross-border regional institutions - and a lower cross-border level - were interviewed. Semi-structured guided interviews (or problem-centred interviews) were conducted. The questions and their main order were defined in advance; however, the answers were not predefined. This allows for a higher level of flexibility in terms of the interviewee's answer and it also allows the interviewer to ask interposed questions to clarify or deepen certain statements (ibid., 268). The interviews were conducted neutrally; the answers given by the interviewees were not commented on as would occur in hard or soft interviews.<sup>5</sup> The interview results are comparable because of the questions being in the same order. Depending on the stakeholders' function and administrative level, the interview questions varied slightly. The interviews were conducted in German, English or French depending on the language capabilities of the interviewees. One interview with a Polish stakeholder was translated into Polish and conducted in writing due to the lack of common language proficiency between the stakeholder and the researcher. On three further occasions, the interview questions were answered in writing in the original language of the questions because the interview participants wished to do so. However, the interviewees were available for further questions. The interview participants and the questions are detailed in the appendix.

Most interviews were conducted via phone or Skype, although some were conducted face-to-face during field trips. Face-to-face interviews have the advantage that social contact can be established between the interviewer and interviewee. Therefore, it is expected that the answers will be very reliable (ibid., 191). Due to the high amount of time required as well as the high travel costs, only a few interviews could be conducted face-to-face. When interviewing stakeholders via the phone, the requested information could be gathered much faster than in face-to-face interviews and at a lower cost (ibid., 193).

To achieve a high degree of motivation for the phone interviews, the potential interviewees were contacted in advance via email and informed about the dissertation project. Furthermore, the stakeholders were provided with the interview questions so that they were able to make up their mind regarding participation prior to the interview. This was also expected to lead to higher quality replies, especially in the case of open questions. The results of the interviews are used to evaluate the influence of the EU policies on domestic and cross-border policies and on cross-border transport in practice as well as to learn more about the mutual interdependencies of the different administrative levels and the functioning of the domestic transport planning systems. Furthermore, information concerning the implemented transport projects is gathered.

Additionally, a **database search** concerning EU-funded projects is conducted in order to complete the information on concrete facilitated projects that was gathered during the interviews. The databases of INEA, the INTERREG A and B cooperation programmes of relevance to the two case studies and <u>KEEP</u> are explored.

<sup>&</sup>lt;sup>5</sup> For more information about hard and soft interviews, see Häder 2015, 192).

After the analysis of the two detailed case studies, the influence on the two cross-border regions is compared to determine whether the different initial situations lead to distinct EU policy implementation and influence, as argued by international scholars. Comparative studies have their methodological origins in the field of social sciences. The initial interest in comparisons as a means of exploring certain phenomena in the field of social sciences arose at the beginning of the 20<sup>th</sup> century (Gauthier 2000, 3). Comparative studies also became very important in the political sciences (Booth 2011, 22; Pierre 2005, 446). In spatial sciences, however, comparisons gained in importance much later and they are still not as much theorised as in the other fields (Pierre 2005, 446). Based on the loss of importance of national boundaries due to globalisation and European integration, the interest in the spatial planning processes of other countries has grown (Ernste 2012, 87). To ensure successful planning across borders, it is important to know how the neighbouring country manages certain planning issues. Therefore, comparative studies are conducted with the aim of determining how policies are made and implemented in different countries or situations. This can shed light on good practices that might be adopted in other places and hopefully produce similar successful results. Thus, comparative studies can contribute to improved practice. The application of practices from one location to another is, however, still controversial (Booth 2011, 14): Masser argues that the initial situation as well as the institutional background of each case need to be taken into account when comparing different cases (Masser 1984, 140). EU policies aim at contributing to a convergence of domestic policies and practices in order to construct a European identity and cohesion. Therefore, the EU has a strong interest in the dissemination of good practices and hence the findings of comparative studies. These studies can then also explore whether an alignment of policies among the member states is reached (Booth 2011, 14). Other reasons to compare different situations in different places are the empirical basis on which hypotheses and reasons for the existence of certain characteristics can be developed, the practice can be described and the outcome of policies and their policy cycle can be assessed (Berting 1979 cited by Booth 2011, 15).

Tilly differentiated four means of comparisons that follow distinct strategies in order to achieve certain aims:

- Comparisons to emphasise certain individualities between the cases ('individualising comparisons').
- Comparisons to confirm the similarities of a phenomenon in different cases and hence the generalisation ('universalising comparisons').
- Comparisons to include different entities into one common system and explain their individual characteristics by their position within and relation to the system ('encompassing comparisons').
- Comparisons that are based on a common phenomenon and want to explore the individualities of that phenomenon that exist in different locations ('variation-finding comparisons') (Tilly 1984, 82; Brenner 2001, 136).

However, studies can also implement a mixture of these four comparison categories (Brenner 2001, 137).

The present dissertation follows a mixture of the **variation-finding comparisons'** strategy and the **'universalising comparisons'** strategy. The phenomenon of EU policy influence on cross-border transport is to be compared in two different cross-border regions. It is expected (and to be proved) that the different initial cross-border situations of the two cases lead to distinct outcomes. Thus, the starting point of the comparison is the different initial situations and the expected different outcomes, which implicates a 'variation-finding comparison' or 'differentiating comparative analysis' (Pickvance 2001, 23). Based on the comparison findings, it is to be generalised how the (implemented) EU policies influence the cross-border transport development in different cases. Particularly when comparing instances in the field of spatial planning and policies, the historical background and underlying culture need to be taken into account. Detailed background knowledge concerning the cases is needed to explain the existing differences among places in their current course of events. This argument is based on the

so-called theory of 'path dependence'.<sup>6</sup> If a high path dependence can be ascertained, the applicability of the best practices of another place is questioned, since it might not have decisive results. The qualitative research that was conducted with the interviews is hence of high importance because of the peculiarity of the different case studies. Additionally, the categories of the criteria list of the cross-border regional initial situations as defined in **chapter 4.4**, the domestic situations of the involved member states (i.e. the state hierarchy and the functioning of the transport systems) as well as the results of the two case study analyses in terms of formal and practical policy implementation are taken into account for the comparison of the two case studies.

In the end, an **evaluation** is used to generalise the results and derive general assumptions regarding the influence of policies and actions based on the explored differences and similarities between the two cases. The results are usually used as feedback on the practice (Wollmann 2005, 274). The main evaluation will concern the implementation of the policies from 2007–2013 (ex-post). Additionally, an outlook for the current period (2014–2020) will be given because the funding period has not yet ended. The policy changes are expected to have consequences for transport across national borders. The aim of the evaluation is to identify the causal connection between EU policies and the development of cross-border transport. Based on the evaluation, recommendations will be developed for the future orientation of the two EU polices.

## 1.4 Relevance and relation to spatial planning

The European Cohesion and Transport Policies have strong relevance to the territorial development of the EU and its member states. Despite a missing competence in spatial planning, the aims and strategies developed in the two EU policy fields will influence the transport development across borders. Therefore, the EU offers financial incentives to ensure the implementation of its aims.

The definition of core network corridors by the TEN-T policy can be seen as an example of spatial planning at the EU level. To benefit from the EU funds, the member states need to comply with the EU's corridor development strategy and predefined procedures. Thus, according to Marshall, the definition of the corridors strongly influences the national transport system as well as spatial planning (Marshall 2014, 19). However, during the implementation process, the EU and national politicians are dependent on the support of experts and actors – in the case of transport, the planning practitioners – as they implement the policies (Guasco 2015, 46).

Moreover, the member states have a high degree of interest in good transport infrastructures and services. In Germany, for instance, transport accessibility has high relevance to the provision of public services and equal living conditions. Therefore, it should be secured by spatial planning (Federal Republic of Germany 1997, §2). Thus, transport and spatial planning are strongly interwoven at a national level and spatial planners are responsible for providing the public with an efficient transport system. Besides that, the German law also obliges spatial planning to contribute to European cohesion by providing the necessary spatial prerequisites (ibid., §1). A good transport infrastructure connected with the neighbouring countries could be one construction of the legal formulation. This obligation acknowledges the interrelatedness of domestic spatial planning and the European Union Cohesion Policy aims. Thus, spatial planners should be aware of European Union policy making, and they should contribute to the implementation of EU policies within the framework of European Cohesion.

As spatial planning is mainly steered at a regional or even local level, the policy styles might mismatch with the (transport) policies developed at the EU level (Marshall 2014, 19). The planners will have to integrate the EU plans with a European level of detail into their daily business within their areas of responsibility (ibid., 14) in order to ensure the implementation. Marshall supposes that spatial planners

<sup>&</sup>lt;sup>6</sup> Path dependence explains the dependence of the development of certain formative historic phenomena (Booth 2011, 20).

will have to use the EU plans as a "committed starting point" (ibid., 14), although they may be able to slightly adapt them to the respective situations at the lower regional and local levels (ibid., 14). Therefore, the domestic spatial and transport planners are very relevant actors in the policy implementation process. As the planning systems, tools and cultures of the EU member states differ from each other based on national discourses and traditions (Stead and Cotella 2011, 13), the EU policies could be implemented in different – even contradictory – ways. Therefore, the communication of planners across borders is very important in securing coherent subnational policy making on both sides of the border (Guasco 2015, 45). The EU financial incentives that are attributed to soft cooperation spaces that cross national boundaries might foster coordination across borders.

This dissertation aims to analyse the influence of EU policy making on transport planning practice within member states in terms of cross-border transport and hence links policies developed at the EU level with spatial planning in and between EU member states. It further analyses the role of domestic spatial planning in the implementation of EU aims. Due to the growing number of attempts at 'planning' at the EU level – especially in the field of transport – it is highly relevant to analyse its influence on planning practice on the ground.

## 1.5 Structure of the dissertation

The thesis is structured in eight chapters (see Figure 2).

The **first chapter** introduces the research framework, including the purpose of the study, the research questions, the methodology as well as the structure of the thesis. Additionally, the relevance and relation of the research topic to spatial planning are discussed. Furthermore, the contribution of the study is embedded within the current state of research.

The dissertation is divided into three parts focussing on (1) theory and policies, (2) implementation and influence and (3) conclusions and recommendations.

#### First part: Theory & Policies

After the introduction, the **second chapter** establishes the theoretical framework of the dissertation project and describes the highly relevant concept of European integration and its associated theories, which are used as the theoretic basis of this study. Furthermore, the concept of Europeanisation is presented and information on European policy making and policy implementation is provided. Further, the European integration processes that take place on the European Union level and influence the EU member states are presented.

The **third chapter** presents theoretical background information concerning transport across national borders within the EU. It first provides information about the situation of European cross-border regions and the European internal borders as well as cross-border cooperation. Second, the importance of cross-border transport and the challenges of transport across national borders (i.e. between border regions) are highlighted. Third, the status quo of the EU transport system is presented based on statistical data and evaluation reports concerning EU studies and policies.

The **fourth chapter** analyses the EU policies that are relevant to cross-border transport, that is, the Cohesion Policy and European Territorial Cooperation as well as the Transport Policy and the Trans-European Transport Networks. The policies are presented and the historical development of their aims, actions and funding possibilities over time is described. Furthermore, the chapter evaluates the mutual coordination of the two policies' objectives and measures regarding improved cross-border transport.

At the end of the first part, an **interim conclusion** is drawn connecting the theoretic framework of European integration with the current EU policies and their relation to the development of cross-border transport.

#### Second part: Implementation & Influence

The **fifth chapter** investigates the first step in EU policy implementation, that is, the EU policies' influence on the policies of the TEN-T corridors and cross-border regions is analysed. The transport aims of all the existing TEN-T priority projects, TEN-T corridors as well as INTERREG A and B cooperation areas are analysed for the funding periods 2007–2013 and 2014–2020. The spatial level of investigation was chosen because the financial support of both policies is linked to the demarcated territories of the INTERREG cross-border areas and the TEN-T corridors.<sup>7</sup> Besides that, it allows for the evaluation of the transnational implementation of the EU policies' aims in soft cooperation spaces fostered by the EU. Additionally, it is to be determined how far the current regional transnational ETC and TEN-T policies are coordinated with each other. At the end of the chapter, nine preliminary case studies are presented and compared, with a focus on the cross-border regions that are crossed by a TEN-T corridor. It will be investigated whether the overlapping of the two soft space categories leads to mutual influences on cross-border transport.

The **sixth chapter** presents the final analysis of the EU policy implementation and it is based on two cross-border region case studies, namely the Greater Region Saar Lor Lux+ and Brandenburg-Lubuskie. Both regions are crossed by a TEN-T corridor. The shape of the cross-border areas depends on the boundaries defined in the ETC.

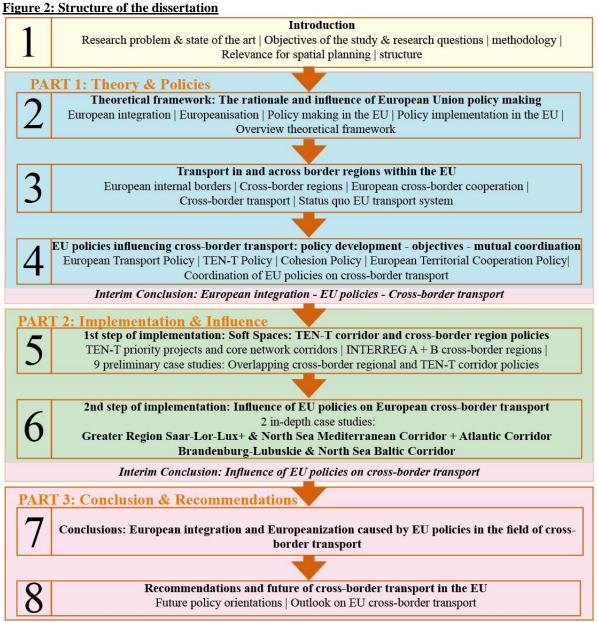
First, the initial situations of the cross-border regions are presented. With reference to Dolowitz and Marsh 2000), Hartlapp and Falkner 2009) and other scholars,<sup>8</sup> it is argued that the domestic and crossborder regional situations have an impact on the implementation of a policy, including the political situation and cooperation culture. Domestic institutions can be highly path dependent. As cross-border regions have very different shapes, the two case studies' territories and border realities are described. Additionally, the cooperation experience and reasons for the cooperation development are presented as these might play a role in the degree of coordination seen in the implementation of EU policies because cooperation depth, including the objectives, structures and perception, develops over time. Moreover, since according to European integration theories institutional spillovers take place, the current cross-border region is conducted because structural differences within a cross-border region can have strong effects on both cross-border mobility and functional linkages across borders, and they might implicate a higher need for EU policy implementation in the field of cross-border transport. At the end of the description of the initial situation, the status quo of the cross-border transport system is described based on statistical data as well as the opinions of the interviewed stakeholders.

Second, the involved member states' transport planning systems are presented and compared in order to detect potential challenges in the coordination of cross-border transport across borders. As Germany is involved in both cross-border regions – which represents another commonality of the case studies – the German transport planning system, with a focus on the national level and the national policy documents, is presented in an earlier chapter. After that, the contribution of the domestic and cross-border transport policy documents to cross-border transport and their reference to the EU policy aims is evaluated in order to arrive at a conclusion regarding the influence of the EU policies on the domestic contexts. Then, the influence of the EU policies on the different administrative levels are differentiated in order to find out more about the formal policy implementation process. Additionally, the challenges concerning a direct EU policy influence are discussed. After the analysis of the policy documents, the practical influence of the

<sup>&</sup>lt;sup>7</sup> For the TEN-T, there are also additional funds offered based on certain funding objectives of the work programmes that are independent of the territory. These can be recalled by country and they will be matched to the involved border regions manually. <sup>8</sup> Among others, Jordan 1999; Knill 2006). See **chapter 2.4.2**.

EU policies' financial incentives is investigated. The cross-border transport projects that have been implemented since 2007 are presented in each case study so as to evaluate the implementation and added value of the policies' aims and funds. Furthermore, projects developed and implemented without direct EU support are analysed in order to investigate the influence of the EU policies and strategies on the projects' contents and aims as well as the capability of the member states to enhance cross-border transport. At the end of the sixth chapter, the findings of both case studies are compared to finally evaluate the influence of EU policies on cross-border transport.

The sixth chapter is followed by a further **interim conclusion** that evaluates the implementation and influence of EU policies on cross-border transport and discusses the opportunities and challenges associated with the promotion of cross-border transport at the EU level by relating it to EU policy making in the field of (cross-border) transport and the contribution of the TEN-T corridors and cross-border regions – as soft spaces – to the policy implementation.



Source: Author, Kaiserslautern, 2017.

#### Third part: Conclusions & Recommendations

The **seventh chapter** illustrates the relations to the EU theories and concepts that were described at the beginning of the dissertation and offers a conclusion regarding the influence of the TEN-T and ETC policies on cross-border transport.

The **eighth chapter** presents recommendations for the future of EU cross-border transport by proposing future orientations for the two policy fields and offering a related outlook.

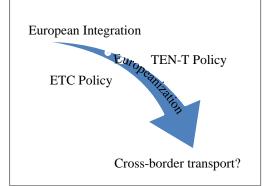
# **Part 1: Theory & Policies**

- Chapter 2 Theoretical framework: the rationale and influence of European Union policy making
- Chapter 3 Transport in and across border regions within the European Union
- Chapter 4 EU policies influencing cross-border transport
- Interim Conclusion I: European integration, policies and cross-border Transport

## 2 Theoretical framework: the rationale and influence of European Union policy making

This research project is based on the theories of European integration and the concept of Europeanisation. The influence of the European Territorial Cooperation and TEN-T Policy - being products of *European integration* - on cross-border transport is to be analysed (see **Figure 3**). Thus, it is to be found out to what degree the process of top-down *Europeanisation* has an influence on cross-border transport. This general approach based on the two concepts was followed already by other scholars like Ian Bache (2008, 1ff.).





Source: Author, Kaiserslautern, 2017.

Therefore this chapter explains both concepts in relation to EU policy making and integrates subfields such as governance and spatial boundaries that help to understand the background of European integration and policy making as well as the development of cross-border transport. Thereby, it sets out the analytical framework of the following research project on the influence of EU policies on cross-border transport.

In scientific literature the terms European integration, **Europeanisation**, **EU policy-making** and **policy implementation** are demarcated. Still they are strongly interrelated and have all an influence on policy outcomes. Bulmer and Radaelli (2004) argue that policy-making at EU level, in this case the process of agreement on a policy, has a strong impact on the implementation of that policy and the degree of change at domestic level. Only if the EU policy made concerns a member state, its national policy might be Europeanized (Bulmer and Radaelli 2004, 5).

The analysis and evaluation of EU influence is approached differently in policy implementation and Europeanisation analysis: Policy implementation is usually limited to the evaluation of the EU policy influence at the domestic level. Europeanisation analysis, however, additionally takes into account the influence of politics and polity (Lenschow 2006, 58). In the following four subchapters, the four strands of the theoretic framework are presented and demarcated from each other.

## **2.1 European integration**

European integration describes the process of establishing EU polities (Bache 2008, 1). According to Guasco, EU integration describes the relation of the member states' to the supranational system and vice versa (Guasco 2015, 17). In this research project, European integration is considered to lead to processes of cooperation among the European member states. The latter aim at converging the domestic developments in areas of shared interest. European integration is seen as basis for the development of EU policies and cross-border transport which are the two main elements of investigation in this research project. In addition it creates indirect factors and processes of influence which shape the development of transnational cooperation.

From the beginning it was not very clearly defined what role the European Union should play and how far European integration should go. The attitudes of the growing number of member states have varied strongly. Therefore the progress in European integration has differed between the member states. Especially the failure of the establishment of a European Constitution questioned the further development in the integration process (Laffan and Mazey 2006, 32).

Laffan and Mazey identified four aspects that are discussed controversially by the member states and have a strong influence on the process of European integration and policy development. First, the member states do not agree on the competence of the EU to decide about domestic issues, several are reluctant to empower the EU in more policy fields. This hampers a further integration of the domestic policies of the member states. Second, the liberalisation of the national economies is not welcomed by all member states. Third, several member states dislike the further development of the EU to a polity. Fourth, the EU needs to take into account external influences, as aspects of security or the accession of new member states. These aspects are discussed controversially as well and might influence a further integration through the development of new common policies (ibid., 33).

The process of European integration is not solely driven by the member states' intergovernmentalism but at least four additional actors and institutions. These five actor groups mutually influence each other. The contribution of the member states to European integration is most visible: The national governments contributed to European integration with their negotiations and final decisions, for instance, to establish the European Community or the European Monetary Union. Furthermore, the executives of the member states implement the EU policies in their respective countries (ibid., 34). However, many more stakeholders and institutions are involved into the process of European integration in parallel: First, European integrate and power. Examples are the European Parliament, whose members are directly voted by the European citizens and which pools the different domestic parties into groups with similar attitudes; and the European Commission which increased its influence on new policy sectors and therewith the enlarged competences of the EU. A third stream that influences European integration consists of external trends and challenges that lead to the development of policies to react on these. The fourth influential factor on integration in the EU is the existence of ideas and beliefs that influence the policy process as well (ibid., 35).

In this subchapter, first different theories that explain the development and influence of European integration are presented. In the following three chapters, decisive elements that were developed based on European integration's (mostly) indirect processes, are presented: different types of governance, new spatial boundaries and European identity. At the end of this chapter, the relation of the most important elements of European integration to this research project is explained.

## 2.2 European integration theories

The integration within the EU has grown significantly since 1957. It is differentiated between different processes: Vertical integration describes the sharing of competences among member states or the uploading and centralization of competencies at EU level. Horizontal integration describes the growth of EU member states or the widening of EU policies on third countries. The extent of horizontal and vertical integration depends on the policy field (Schimmelfennig and Rittberger 2015, 34). Therefore Schimmelfennig and Rittberger introduced a third dimension, the sectoral integration. New policy areas were added that were previously governed by each member state alone. The extent of centralization of the policy areas (i.e. their vertical integration) varies and can change over time (Schimmelfennig and Rittberger 2006, 74).

2 Theoretical framework: the rationale and influence of European Union policy making

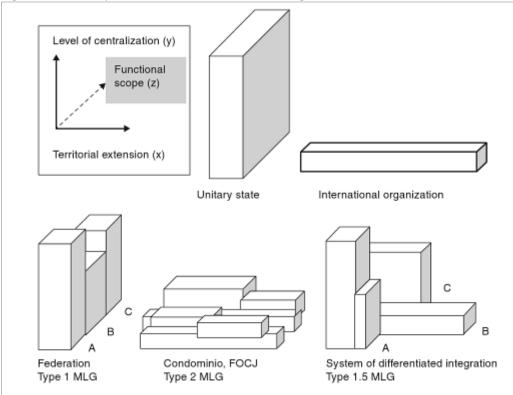
## Differentiated integration

As European integration has not been comprehensively completed, Schimmelfenning and Rittberger argue that European integration processes have to be differentiated according to the EU authority in different policy fields. The authority is evaluated based on three dimensions (ibid., 34ff.):

- the degree of *centralisation* of a policy field, i.e. is it in the sole or shared competence of the EU or not?
- its *functional scope*, i.e. does the authority comprise a single issue or the whole policy area?
- And the *spatial expansion* of the authority, i.e. does it comprise solely some domestic territories or the whole territory of the EU?

Not all policy fields are organized centrally at EU level, some are still in the competence of the member states, others have been uploaded only to a certain extent (vertical differentiation). Additionally, not all member states completely applied all EU policies (for instance not all member states are part of the Euro-Zone and Schengen, but opted out or have not fulfilled certain accession prerequisites) whereas some non-EU countries apply EU policies, for instance Schengen (horizontal differentiation). Additionally, it is possible that only some member states cooperate in a common field of interest (enhanced cooperation) (ibid., 34ff.).

**Figure 4** illustrates different shapes of integration based on these three dimensions. As the EU comprises a mix of authorities with different dimensional characteristics in different policy fields Schimmelfennig and Rittberger (2015) developed the shape 'system of differentiated integration' to describe the European integration process in the EU.





The support of EU member states in favour of European integration depends on the domestic political parties and their preferences in the different policy fields. Also because of different domestic responsibilities, types of governance and institutions as well as a missing comprehensive European identity it is said to be hard to reach a high level of non-differentiated integration (Hooghe and Marks 2006, 209).

Source: ibid., 35.

Integration theories try to reveal integration processes and attempt to explain the reasons and characteristics of integration (Schimmelfennig and Rittberger 2015, 34). Furthermore, they were created to predict when and how European integration will advance (Schimmelfennig and Rittberger 2006, 76). The different theories were developed over time and mirror the political development steps of the European Union and its integration process (Pollack 2010, 17). Therefore they are based on different assumptions which are presented in the following.

According to the theory of *neo-functionalism* European integration has been steered by elites cooperating across national borders in functional issues. These cross-border governmental cooperations led to political and functional spillover effects. Supranational institutions were established to ensure the implementation of common aims. Therewith, power was attributed to the supranational level (Haas 2004, 291). The functional exchange and integration additionally have led to a stronger transnational cooperation which can foster the harmonization of domestic policy processes (Guasco 2015, 37; Schimmelfennig and Rittberger 2015, 49). The integration process is not steered solely by the involved member states. Instead other actors at supranational and subnational level have become important after the member states had initiated the process with own and shared interests (Rosamond 2000, 59). The high importance of these actors is acknowledged in the whole policy-making process - especially during the EU policies' implementation (see **chapters 2.4.2** and **2.5**).

Neo-functionalism believes in automatic and independently boosting **spillover effects** in European integration which were not foreseen by the domestic governments and cannot be controlled by them. This was expected to lead to an ongoing European integration which proceeded step by step (Pollack 2010, 17; Schimmelfennig and Rittberger 2015, 46; Rosamond 2000, 51; Hooghe and Marks 2006, 216). Once a policy area (economic sector a) is organized at supranational level, other related unintended areas (sector b and c) will follow immediately because cooperation is considered to be necessary for further improvement of the first policy area (sector a) (*functional spillover*) (Pollack 2010, 17; Schimmelfennig and Rittberger 2015, 48). The economy is seen as the (original) main driver of European integration. Functional economic sectors which are relevant to meet physical demands and contribute to well-being are to be coordinated and aligned. This leads to common benefits. European integration is said to be promoted by good practices and experiences. Therewith European integration is expected to be intensified and run sustainably (Pollack 2010, 17). Guasco sees cross-border cooperation (see **chapter 3**) as possible functional spillover of the Common European Market and European Cohesion Policy. Moreover, European Territorial Cooperation across borders is an EU policy field which can lead to cooperation in further fields (Guasco 2015, 35).

According to theory, besides functional spillover effects also *political spillover* and *institutional* or *'cultivated spillover* (Schimmelfennig and Rittberger 2015, 49; Rosamond 2000, 61) take place which is influenced by actors and processes mainly from supra- and subnational level.

European integration is developed by a large number of interested actors and the negotiations of their respective aims (*politicization*). Established supranational institutions lead the further integration process (Rosamond 2000, 53; Hooghe and Marks 2006, 215). These supranational actors and institutions gain experience in one sector and are empowered piecemeal to manage the cooperation in other policy sectors. Additionally they lobby for a stronger integration by a common management of policies at EU level (Moravcsik 2005, 352; Pollack 2010, 18; Schimmelfennig and Rittberger 2015, 49). Furthermore, subnational actors, e.g. interest groups, develop strong contacts to the supranational actors and lobby for a stronger integration and empowerment of the EU institutions instead of the national ones (Pollack 2010, 18; Schimmelfennig and Rittberger 2015, 49). The national governments become less important. European integration has transformative effects on the domestic systems of the member states (Schimmelfennig and Rittberger 2015, 38). The

actors themselves change their interests and strategies - influenced through the exchange within European integration - and become more transnational (Rosamond 2000, 56).

The view that politicization contributes to European integration is contested today: The communicated loss of national power and sovereignty in combination with a stable strong national identity produced Eurosceptism (Hooghe and Marks 2006, 215).

Sandholtz and Stone Sweet declare functional and institutional spillover as well as the growing role of the supranational institutions as decisive for the European integration development. Empirical studies in certain policy fields, amongst others transport, confirmed the assumption that augmented cross-border transactions initiated political processes which produced regulations and policies at EU level (Sandholtz and Stone Sweet 2012, 26). Intergovernmental bargaining should not be disregarded in neo-functionalism as it is a relevant element of European integration (ibid., 21).

According to the *New Institutionalism* institutions are very important in European integration (Pollack 2010, 21). There are three main strands of institutionalism. First, the rational choice institutionalism argues for a high influence of formal EU regulations – including procedural rules - and rationally driven political stakeholders on the development of policies and their contribution to European integration (Dühr, Colomb, and Nadin 2010, 107; Pollack 2010, 22). Second, the sociological institutionalism focuses on the influence of informal institutions on European stakeholders' identities and interests. Influenced by cultural and social mindsets as well as informal norms and rules stakeholders are considered to make an 'appropriate' choice based on their informal surrounding institutions (Schimmelfennig and Rittberger 2015, 53; Pollack 2010, 22; Dühr, Colomb, and Nadin 2010, 108f.). Third, *historical institutionalism* argues for the relevance of the **path dependency** of formal and informal institutions. This is said to influence the stakeholders' preferences, political structures and thereby the further European integration. Also the timing of changes and of institutions are seen as important factors for European integration (Pollack 2010, 22; Dühr, Colomb, and Nadin 2010, 107). A fourth strand of institutionalism focuses on institutional discourses. It differentiates two decisive form of **discourse**: on the one hand discourses between political stakeholders in the policy-making process, and on the other hand discourses between the political stakeholders and the public society which might influence European integration as well (Dühr, Colomb, and Nadin 2010, 109).

*Constructivism* is a rather new approach to explain European integration compared to neo-functionalism and intergovernmentalism. It sees European integration as a process of establishing and strengthening a European community (Schimmelfennig and Rittberger 2015, 53). Under the constructivist theory European integration is accelerated by rather soft pressures and processes of ideational value based on the common European identity, norms and beliefs (ibid., 39) in addition to formal regulations (Pollack 2010, 24). So, the development of European integration is influenced by the dissemination and the extent of adaptation of these soft attitudes. Negotiations are made based on discussions and persuasions. Domestic claims are to be defended with arguments to come to a consensus at the end. A compatible basis of European identity is needed for integration (Schimmelfennig and Rittberger 2015, 39). Transnational cooperation is influenced by institutions and cultures and based on common aims and norms. Through transnational interaction preferences are produced endogenously. The EU institutions are based on these common values, norms, preferences and identity and can only be empowered further based on the commonalities of the European member states. European institutions are expected to contribute to a further integration as they contain frequent contact in policy-making and offer the place for mutual learning and exchange (ibid., 53). Even the EU institutions are said to influence the states' and actors' identities and interests (see top-down Europeanisation in chapter 2.3.1) (Schimmelfennig and Rittberger 2015, 54; Pollack 2010, 24). When European integration outcomes are exposed and considered to be just and reasonable it is expected that European citizens, governments and policy officials will be involved in EU policy-making and contribute to the further development of European integration (Schimmelfennig and Rittberger 2015, 56).

In the constructivism approach differentiated integration can take place because of diverging demands on legitimacy and different ideational basic rules and values in some policy areas compared to others. Therefore some policy areas might be more centralised than others. At the same time the degree of horizontal integration can vary based on the **domestic attitude towards the EU**. Also the content of a policy has an impact on the level of integration. Technical, less identity bound policies are expected to be accepted and integrated at EU level much faster (ibid., 56). Thus, constructivism stands for the strong influence of actors' aims and identities by their surrounding culture. This assumption contrasts the rational choice theory in which actors form their interests and identity independently from other factors (Pollack 2010, 24). Evidence for these assumptions, however, has rather been weak: Empirical studies revealed the higher influence of formal institutions than informal institutions on the European actors (ibid., 24).

The main rival of the supranational theories of European integration presented is the intergovernmentalism which.

*Intergovernmentalism* is based on different assumptions than the earlier described approaches. It was developed as an answer to the very optimist neo-functionalism approach towards fast European integration (Guasco 2015, 36). It reacts on the "**resilience**" (Pollack 2010, 19) **of the power of the national levels** within the EU (Pollack 2010, 19; Schimmelfennig and Rittberger 2015, 51; Rosamond 2000, 73). Here European integration is based on the **rational choice** of the member states and their mutual **negotiations** (Schimmelfennig and Rittberger 2015, 40; Pollack 2010, 20). This choice influences the vertical integration. It is expected that the domestic governments predefine their national aims before the negotiations start and keep them until the end of negotiations. The negotiations among the member states solely impact the 'costs' of maintaining and achieving their aims but not their content. Cooperation and integration between the European member states takes place when mutual benefits can be achieved (Schimmelfennig and Rittberger 2015, 40). The result of the negotiations depends on *national preferences*, the respective *bargaining power* of the involved international institutions on the negotiations and the surveillance of the agreements' implementation (Schimmelfennig and Rittberger 2015, 40).

The outcomes of negotiation are usually a product of the lowest common denominator of the most powerful states. member states are only interested in so far as the transnational policies are of added value for their domestic policy aims and context. The member states have to cede some sovereignty and therefore want to produce advantages for their country in exchange (Moravcsik 1991, 25; Schimmelfennig and Rittberger 2015, 43). The negotiations decide about the functional extent of integration (Schimmelfennig and Rittberger 2015, 41). If no common agreement can be reached, differentiated integration is a possibility: Not all policies are strongly centralised. Instead the member states can follow their own policies independent of each other in areas of dissent. This flexibility and possibility of disregarding dissent in some policy areas opens European integration for third countries and contributes to a stronger horizontal integration in other policy areas (ibid., 44). States that are not involved in the European negotiations are excluded from integration and follow different aims and basic rules. Thereby third countries are influenced and can influence EU countries horizontally. As long as it brings additional benefits for the already integrated member states more countries will be able to join the cooperation and enlarge the horizontal integration (ibid., 41). In intergovernmentalism the EU is considered as an intergovernmental policy arena - the national discussions are extended at EU level but the European institutions preferentially do not gain more power. They are not accredited with much policy initiation power or given sovereignty – they are just approached with national preferences and shall monitor the policy implementation (Schimmelfennig and Rittberger 2015, 42; Moravcsik 1991, 25; Pollack 2010, 20). The European treaties are seen as main outputs of European integration and it is not expected that European integration goes beyond intergovernmental negotiations (Guasco 2015, 36; Moravcsik 1991, 25). The topics of cooperation are not supposed to be expanded to security and foreign policy questions and mainly concern economic issues. The member states control the level of European integration and do not transform their domestic state systems (Schimmelfennig and Rittberger 2015, 38).

These different theoretic approaches argue for the importance of different influence factors for the European integration process and predict different future scenarios of European integration. As presented in the beginning of the chapter, the degree of European integration varies between different policy sectors. Therefore it might be the case that the influence of European integration in one policy sector can be explained very well with one of the different theoretic approaches whereas a different approach needs to be used to explain the situation in another policy sector. As the research project aims at exploring *European Territorial Cooperation* and the *Trans-European Transport Networks* which belong to different policy sectors, it will be analysed in **chapter 4** which European integration theories can explain the policies' development, characteristics and factors relevant for their implementation in order to evaluate the policies' influence on further integration in a later step.

In the following, two aspects which are of high relevance for European integration and European policy implementation are explained in more detail: **multi-level governance** which describes the 'who' and 'how' of a policy implementation as well as a reflection on new **spatial dimensions**, exploited by the EU, which describe the 'where' and also the 'how' of European policy implementation.

## 2.2.2 Creation of multi-level governance

European integration is said to have produced new types of governance within the EU. *Governance* is a special way of doing politics to be distinguished from the traditional government. According to the 'governance approach' the EU is considered to be a special political system which cannot be associated with an international institution or a national political system. It is described as a "new and emerging system of 'governance without government'" (Pollack 2010, 35) which is developed under European integration influence (Piattoni 2010, 1). Governance is analysed in various ways and theories, some scholars even argue for the development of new terms to be able to properly describe the characteristics of European governance. Governance describes the loss of importance and of centrality of the government in the policy-making process in favour of (transnational<sup>9</sup>) networks of public and private stakeholders. Because of missing information and knowledge the government is not capable any longer to steer the development and successfully approach economic and social challenges. Public and private actor networks support the government by negotiating policy issues based on their knowledge to reach common aims (Pollack 2010, 36; Marks and Hooghe 2004, 19; Rhodes 2007, 1246).

## Multi-level governance

The term 'Multi-level governance' adds to the governance component a **multi-level** dimension. This dimension describes the dispersed state control in policy-making which is partly given to both the supranational and subnational level (Marks and Hooghe 2004, 19). The traditional central national level is not the sole level competent any longer. The different governmental levels are interdependent and cooperate with each other to develop and implement policies (Peterson 2003, 11).

Marks introduced a first 'multi-level governance' model in 1993. By analysing the partnership principle in Structural Funds policy-making which was introduced in 1988, he discovered the loss of sole control

<sup>&</sup>lt;sup>9</sup> In the case of the EU.

#### 2 Theoretical framework: the rationale and influence of European Union policy making

of the national states<sup>10</sup> for the benefit of the supranational and subnational levels. He pointed out the importance of the interaction between those levels and the subnational level (Marks 1993, 407). The partnership principle requires cooperation between the European Commission, the respective member states and the responsible authorities at national and subnational level as partners to reach a common aim. The partners shall commonly plan, implement and monitor the use of the Structural Funds and their programmes. Thereby the European Commission fostered the principle of multi-level governance (Bache 2004, 166). In 1992, the Maastricht Treaty introduced a higher importance of supra-national authorities, more policy areas with qualified majority voting and a stronger European integration in policy-making. Therefore Guasco argues that the concept of multi-level governance gained further importance (Guasco 2015, 31). Later reforms of the Structural Funds are said to have returned decisive power to the member states' governments (Pollack 2010, 36). Empirical analysis proved that the implementation of the partnership principle varied in the member states. The earlier levels of management responsible still had a strong influence on the relations between the involved actors and the distribution of power. In other cases, earlier reluctant countries developed a multi-level partnership through learning from other member states. Still the multi-level governance process is said to be only applied when it fits to the domestic governmental system and its preferences. Therefore it is very relevant to know the EU's impact on domestic preferences - and vice versa - the shaping of EU policies by domestic interests (Bache 2004, 166) in order to evaluate the policies' implementation. This is done in Europeanisation and policy transfer analyses (see chapter 2.5). Both analytic approaches are based on the assumption of multi-level governance as they analyse the influence of a certain level within this multi-level network.

Policy-making in a multi-level governance system favours the subnational levels as it has the possibility to participate to a stronger degree. Often the subnational level gets in closer contact to the European supranational institutions and to other subnational levels. The subnational actors' activity depends on their preferences and their position within their domestic system. To ensure the implementation of national ideas and to regain some control via bilateral arrangements the national level might try to influence the lower levels and bargain with them (Marks and Hooghe 2004, 19; Bache 2008, 21; George 2004, 115). Marks considers the division of governance to be very strong in the implementation phase of policies (see **chapter 2.4.1**).

It is very important not to forget the *principle of subsidiarity* on which European policy making is based: The EU supranational level can only develop policies and legislation in those subjects which cannot be handled satisfactorily at lower governmental levels (Peterson 2003, 11). A reason for this principle is the heterogeneity of subspaces within a nation, or within the EU. The central government can hardly take into account all preferences and conditions of the whole territory. To live up to a standard, multi-level governance enables subnational or more appropriate levels to react on territorial peculiarities and produce special custom-made policies (Hooghe and Marks 2003, 236; Marks and Hooghe 2004, 16). Other policy fields like climate change have a large, even global influence and therefore should be decided not at national but at supranational level. The level of competence should be dependent on the 'externalities' of the policy field. The significance and influence of a policy decision needs to be taken into account (Marks and Hooghe 2004, 16) when choosing the appropriate level of policy-making.

For this research project the application of multi-level governance is relevant in two fields. First, the involvement of the different levels is explored in the process of policy implementation of the EU policies in the respective member states and second, the policies' influence is tested in the transnational transport coordination of cross-border regions.

<sup>&</sup>lt;sup>10</sup> Read more on the reasons for the loss of control of the national states or their surrender of some power in George 2004, 113.

Marks and Hooghe argue that the characteristics of multi-level governance have changed over time due to the political situation. Originally, the neo-functionalists and founders of the EU aimed at establishing a federal state. However, today the national support for the strengthening of supranational governance is very low although the number of and EU policy fields and therewith functional integration has grown. Therefore Marks and Hooghe compare the governance system of the EU with a consortio: On a predefined common territory it is cooperated on various functional areas based on flexible arrangements.

Additionally, they see parallels to a 'condominio' which can also be applied in cross-border regions: flexible (also subnational) territorial units are created to cooperate on certain functional issues. These territories can overlap with others and are not divided into different national boundaries but grouped to one functional space which is commonly governed by the involved sovereign states (Hooghe and Marks 2006, 216).

Besides the traditional *hierarchical* model of multi-level governance Hooghe and Marks defined a *soft model* which additionally involves private stakeholders besides the public levels. Additionally, several intersections between different administrative levels can exist in contrast to the hierarchical model. To minimise the efforts of coordination this model divides the competences to various functional areas that address certain topics. These areas can overlap each other and compete. These competence levels are very flexible and can arise and disappear from time to time depending on the demand. Here stakeholders of different levels can be active in several competence areas but the tasks are separated strongly (Hooghe and Marks 2003, 236; Marks and Hooghe 2004, 16). This model resembles processes which take place in cross-border cooperation, as argued by Guasco. It might be applied to understand and analyse the processes in cross-border policy making (Guasco 2015, 41). This is acknowledged by Marks and Hooghe. Such cooperations usually overlap with domestic competence areas (ibid., 25). Policies developed in 'soft' multi-level governance which have a clear functional focus, are said to be the organisational answer to the Europeanisation process and demonstrate the 'state glocalisation'. This means that the local and regional levels as well as the supranational level have gained more competences in terms of policy-making (Nelles and Durand 2014, 106).

#### Multi-level governance in cross-border cooperations

Several researchers analysed the application of multi-level governance not only at EU level but also in **cross-border** contexts which is very relevant for this research project as it focuses on cross-border transport within cross-border regions.

Cross-border regions have been established for cooperation and are said to have become "policy spaces" (Dörry and Decoville 2013, 3). The European level has supported cross-border cooperation since many years. Also the national level benefits from EU support in the border regions and supports cross-border projects. However, when it comes to competences the states are said to be very reluctant to share their sovereignty with established cross-border institutions. This hampers the implementation of cross-border actions and agreements and frustrates involved actors (Houtum 2000, 66). Thus, multi-level governance also shows shortcomings in the cross-border context. Therefore cross-border regions are described as "laboratories [...] of the European integration process" (ibid., 64) and cross-border cooperation is promoted to contribute to further European integration (Cappellin and Batey 1993, 1).

It seems to depend on the number and character of the actors involved, the cooperations' traditions and history as well as the cross-border region's size, which governance approach is applied in cross-border cooperations (Nelles and Durand 2014, 113). Strategic leaders that structure and organize the cooperation are said to be very relevant in cross-border region governance (Dörry and Decoville 2013, 13).

Dörry and Decoville analysed governance structures in public cross-border transport within the metropolitan cross-border region of Luxembourg. They found evidence that the decision making

structures and aims of the national levels have still prevailed. In the case of the public transport in the cross-border region of Luxembourg no functional competent levels arose but the public transport was governed by multi-purpose associations (ibid., 2). The central domestic level remained the most important actor of multi-level governance because cross-border regions do not have own means and therefore rely on the national states. Additionally, they do not have competences in most fields of cooperation which minimises the potential of a real multi-level governance process. Therefore Dörry and Decoville question the applicability of the soft governance model in a complex cross-border context (ibid., 4).

Perkmann acknowledges that cross-border regions are a challenged form of multi-level governance because their members do not belong to the territory of one state and therefore have to develop their own institutional framing rules and decision-making processes that are recognized mutually and followed voluntarily. Also cross-border regions are said to have a horizontal and a vertical network. Horizontal governance takes place in the cooperation among its members at local level and with EU funded INTERREG<sup>11</sup> bodies. Vertical governance involves supralocal and supranational bodies and concerns the control of the INTERREG projects' implementation, for instance. Perkmann describes these two different level processes and the form of cooperation as '*networked governance*' (Perkmann 2005, 168). With the European multi-level governance system the EU is said to offer the potential for new forms of actors to develop competences in policy-making and to access resources (Perkmann 2007b, 861). Multi-level governance across national borders is said to be especially effective when the involved countries have a tradition of local autonomy as in the Scandinavian countries and Germany and therewith a stronger will to give the local level some sovereignty. The donation of sovereignty to the regional level, however, is said to be less probable because it is seen as a stronger challenge for the national sovereignty (Perkmann 2005, 163).

The European Union supports the creation of cross-border cooperations as the European Commission is dependent on other domestic bodies that execute and implement the EU policies. Therefore it offers several opportunities to establish such networking and cooperating bodies and activates subnational actors in its policies. In addition, it ensures its own participation to steer the topics of cooperation etc. (Perkmann 2007b, 865). Still the cooperations are expected to develop organisational capacities to maintain their governance structure and follow their tasks. Therewith they enlarge their institution's influence (ibid., 866). Cross-border regions which coordinate the policies across borders, involve subnational actors from different countries and follow flexible extensible policy tasks are said to be an element of soft multi-level governance (ibid., 863).

Multi-level governance has a strong influence on the EU policy development but also on the policy implementation. The research project focuses on the latter aspect. The arising of multi-level governance through European integration is considered to be of high relevance for this research project as this has strongly influenced the EU policy implementation process and the practice of cross-border cooperation: multiple levels and organizational forms were added and made the implementation process more complex. In the analytical part of the research project the relevance of several different member states' administrative levels for cross-border transport is evaluated. Additionally, the implementation of two EU policies is investigated systematically, including their influence on multiple administrative levels and cross-border institutions. However, the research project does not analyse in depth the integration of individual stakeholders or the society.

<sup>&</sup>lt;sup>11</sup> INTERREG was officially renamed to European Territorial Cooperation (ETC) and supports transnational cooperation within the EU. More information on INTERREG and the ETC can be found in **chapters 3.1.2** and **4.2**.

Besides the development of multi-level governance European integration has led to the creation of new territorial, relational and soft spaces which cross traditional administrative national boundaries. They are presented in the following chapter.

## 2.2.3 Creation of territorial, relational and soft spaces

Despite the division of the EU in multiple subnational levels of governance, the member states' national demarcation stays very relevant when analysing the influence of EU policies, as the national states traditionally react on the influence of the EU policies or are involved in policy development in case of a shared competence. The implementation practice of policies, which results in the actual situation in space, differs among the domestic spaces. However, the EU pursues the goal to assimilate the national regulations that influence the common European Union space, contribute to cohesion and complete the Single Market. In this respect territorial borders are to be removed and relational or soft spaces become relevant:

The EU aims at the diminishing of internal EU borders and differences (**boundary removing** resp. **positive integration**), whereas at the same time external borders are to be established and shall become less permeable (**boundary building** resp. **negative integration**). These two processes of European integration happen at the same time: the national boundaries are integrated positively, the EU boundary is integrated negatively and demarcated from the outside (Bartolini 2009, 177).

The loss of importance of the European territorial borders - in the sense of military borders - can be seen as prerequisite for European integration. It enabled the removal of economic borders and an agreement on centralized common legal rules, i.e. the internal removal of boundaries. Because of a lack of control of the supranational level over the whole EU territory, the **external boundaries** have been established much slower (ibid., 242). Still, the external borders have become a crucial policy subject of the EU in recent years.<sup>12</sup> This underlines that the external territorial boundary setting is an important part of European integration. Immigration policy could not stay in the full responsibility of each member state because the border controls within the countries were abolished to enable the free movement of EU citizens. This process is described as the "Pooling [of] Internal Coercion" (ibid., 205) and signifies a fundamental step of European integration. The member states with external borders do not only have to control the immigrants concerning their access into the own country but at the same time into all other EU countries (ibid., 205).

As the internal borders are to be removed, European integration has encouraged the **mobility across the internal** (national) EU **borders**. European citizens are free to move, live and work in the whole EU whereas earlier these rights were subject to the control of the member states<sup>13</sup>. The Treaty of Rome is seen as a starting point for the opening of the internal borders. It proposed the establishment of a common European market and a customs union as well as the creation of common policy fields (e.g. the field of transport). The free movement of people implicates new challenges in crime prevention and made it necessary to cooperate in police issues. Existing different national legislations concerning crime are still said to be a challenge (ibid., 205).

The Structural Funds policies introduced the **INTERREG** programme<sup>14</sup> in 1989 which comprised financial support for European cohesion and special support for European border regions. The latters'

<sup>&</sup>lt;sup>12</sup> This is because of the so-called 'refugee crisis' which has led to strong immigration flows to the European Union since 2015. Therewith the external EU borders became a highly explosive political subject.

<sup>&</sup>lt;sup>13</sup> Due to the refugee crisis several inner-European frontiers were constructionally re-established with border fences and border controls were temporally reintroduced. Until the end of November 2017 at the latest further internal border controls are possible at the German, Austrian, Danish, Swedish and Norwegian borders. However, the EU aims at returning to the Schengen rules until the end of 2017 (Council of the European Union 2017, 7f.).

<sup>&</sup>lt;sup>14</sup> More information on the INTERREG programme is given in **chapter 4.2**.

position was to be improved through cross-border cooperation and investments into insufficient infrastructures to abandon these areas' isolation. According to O'Dowd the EU introduced INTERREG quite late due to the sensitiveness of national borders and the initial reservations towards the economic integration of the member states. The programme, however, was the impetus for enlarged regional cross-border cooperation also at borders without cooperation tradition (O'Dowd 2002, 119).

Boundaries can have different characteristics and exist because of different reasons. Boundaries can be demarcated by functional or territorial reasons. Territorial boundaries are strongly related to a certain spatial area. Functional boundaries are less related to a certain space but can exist over longer distances because of modern communication methods like the internet (Bartolini 2009, 15). The emergence of so-called 'relational' boundaries - be it of cultural, economic or other functional nature - are said to be a symptom of European integration and its political reality. These boundaries have been reshaped and often trespass traditional domestic administrative borders. National borders are considered not to be natural but socially or politically constructed. In general relational boundaries are more flexible and can change frequently over time (O'Dowd 2002, 111; Bartolini 2009, 242; Goodwin 2012, 1182). Still the national borders have remained important also in terms of identity of the European citizens (O'Dowd 2002, 114). Territorial and relational boundaries mutually influence each other and co-exist and therewith shape the development of the European space (Goodwin 2012, 1182; Allmendinger, Chilla, and Sielker 2014, 2714). A criterion to differentiate boundaries is the reason for the demarcation: which benefits are to be achieved and who or what shall (not) become part of the boundary? Furthermore, boundaries differ in their openness to the external and organize their boundaries in different ways. Finally, **boundaries can overlap** and **influence** each other, functionally, socially and in their territorial demarcation (Bartolini 2009, 15).

In scientific literature the relational and territorial perspectives of space contrast each other as in a **relational perspective** space changes constantly its characteristics and contains several levels of interdependence - connected via networks. Furthermore, it can comprise several social boundaries. It is not bound to administrative territorial borders. This contrasts with the **territorial perspective** in which space is separated by clearly defined territories that belong to a logic of hierarchy of different levels. Goodwin proposes to merge these two perspectives as they mutually influenced each other. Institutions are often responsible for a certain territory and even if this is not the case the produced policies are often only binding for a certain territory although the policy field itself is of global importance like climate change. At the same time, institutions often transcend their assigned territories in their political practice. Additionally, some formal territories were developed out of relational spaces that hardened at some point in time. These hardened spaces can i.e. due to political changes, soften again and loose their importance and resources and change the composition of actors involved. Here the territory assigned to governance is decisive (Goodwin 2012, 1182). Thus, space does not necessarily comprise a territorial demarcation and is not fixed eternally.

Bartolini sees European integration as the process of **crossing** and **exceeding, changing** and **modifying** "territorial and functional boundaries" (Bartolini 2009, xii) of the EU member states and therewith a massive change in their character. Hence, he stresses the influence of European integration on the territory and points to the growing importance of functional or soft spaces. The EU member states are expected to assimilate again in the fields of culture, law and economy after many years of demarcation (ibid., xii). Because of growing supranational competences in several policy fields European integration is said to lead to tensions with the sovereign territories of the member states. So far, the EU territory is rather considered to be a 'pool' of member state territories. Additionally, the EU can be understood as a common soft space of values which is rather based on relational than territorial demarcations. Spatial planning is one of the policy fields which is not steered at EU level. Still European (territorial) Cohesion Policy might be considered as a starting point for a new EU competence. Other EU policy fields like transport have a strong impact on domestic spatial planning although they are not coordinated territorially at EU level (Allmendinger, Chilla, and Sielker 2014, 2707). Still there were some soft **intergovernmental attempts of spatial planning** at EU level like the voluntary creation of the European Spatial Development Perspective (ESDP) and the Territorial Agenda (TA). These attempts might contribute to the creation of a common European territory (Luukkonen 2014, 14).

According to Perkmann **re-scaling** processes can be observed in three main dimensions: It can be motivated by **political** objectives and a process of grouping like-minded people. Additionally, it can be explained by the risen importance of (multi-level) **governance** in European policy-making. New governance models, based on common interests and the latters' common management can lead to the demarcation of new territories. Third, territorial re-scaling and cooperation can take place because of **strategic** reasons: certain **visions** shall be implemented on a common territory. Spatial re-scaling always includes a **change of scale** of the governance level and creates **new institutions** that are responsible for the governance at the new level. Re-scaling processes can only happen and be efficient when this process is sufficiently **supported** socially, based on evident reasoning of the added value and need. The process of re-scaling needs to include actors of the involved territories to become **politically legitimate** and to be able to take decisions. Territorial boundaries are often based on historic reasons of domination and usually represent a certain social order (Perkmann 2007a, 255).

Allmendinger, Chilla and Sielker developed a scheme of three categories that measure the territorial influence of policies according to the EU competences involved: Policy fields that stay in the sole responsibility of member states are not expected to have an impact on the EU territory ('**nonterritoriality**'), whereas policies that are in the shared responsibility of the EU and the member states (the member states keep their sovereignty) are expected to influence the respective national territories ('**pooled territoriality**') based on the theory of intergovernmentalism. The third category ('**supraterritoriality**') is reached when the EU level is the sole competent in a policy field. This is the case in the European Single Market. The EU can determine the rules for the national territories and sanction non-compliance. The third category of territorial power is striven for by the theory of neofunctionalism. The attribution of the territorial categories, however, can change over time and is dependent on the political development (Allmendinger, Chilla, and Sielker 2014, 2708).

Typically, **spatial planning** has to develop plans for a predefined territory. In doing so, it has to take into account relational spaces and different levels of territorial spaces. Spatial plans cannot be reduced to pure relational spaces because of material inputs and issues that are crucial for planning and are regulated hierarchically (financing decisions, infrastructures, environment, etc.). Still hierarchical structures are influenced by interrelations themselves and change due to external influence. To ensure the implementation of a strategy in spatial planning the plan and its relational strategies needs to be bound to a certain territory and therewith to a certain jurisdiction (ibid., 2704). However, attempts of spatial planning and territorial development at EU level led to the necessity to open up the domestic spatial planning systems to the European discourse and transnational cooperations (Pallagst 2007, 3).

#### New types of spatial boundaries

So-called '**soft spaces**' – mixtures between relational and territorial spaces – are cooperation areas for common plans or strategies in shared fields of interest. Their spatial coverage usually transcends administrative boundaries and they can be created at diverse scales and for distinct durations. They usually co-exist to hard spaces and complement them (Haughton et al. 2010, 52). Soft spaces contribute to temporal re-territorialisation processes of the EU. Further reasons for their establishment are the representation of spaces independent of administrative boundaries (e.g. functional areas) to point to challenges and to influence the political power level structures in a certain policy field. They can also be developed to cooperate in the field of spatial planning. The creation of a soft space offers the potential

to integrate other actors and visions that come from other administrative boundaries into a common governance process. Additionally, soft spaces allow an exchange of experiences in specialized fields through the establishment of a governance network. Besides that, soft spaces can be established as political testing grounds for strategies in special fields without full empowerment (Allmendinger, Chilla, and Sielker 2014, 2704). For instance spatial development visions can be developed. However, the implementation of these experimental results has to be ensured in the traditional administrative levels because of missing competences of soft spaces (Haughton et al. 2010, X, 51f.).

Soft spaces can have different characteristics and do not have to be demarcated definitely. Additionally, they can institutionally harden i.e. by developing formal structures in order to become more acknowledged and independent of the domestic administrations (Allmendinger, Chilla, and Sielker 2014, 2704; Othengrafen et al. 2015, 222; Metzger and Schmitt 2012).

Allmendinger, Chilla, and Sielker (2014) argue that these European re-territorialisation processes - enabled by soft spaces - might influence domestic and regional spatial planning in terms of responsibilities and themes (ibid., 2704).

An example for soft spaces are **cross-border regions**<sup>15</sup>. They consist of at least two territorial entities that are located contiguously on both sides of a shared national border. Often the sole clear territorial demarcation is the national border around which the cooperation takes place. The cross-border regions themselves have often **flexible fuzzy shapes**. Frequently the main reason for cooperation is the existence of the border which is to be overcome. It is to be taken advantage of the closeness of the two bordering territories. Cooperation is established in certain fields of shared interest. Cross-border regions are often developed strategically and based on new tendencies of **multi-level governance** strongly influenced by European Cohesion Policy. These cross-border regions shall implement policies developed at EU level (see chapter 2.2). Therefore the cooperations involve subnational governmental and non-governmental actors from at least two member states and are developed together with the European Commission and the member states involved. Institutional inter-linkages across borders are the basic prerequisite for cooperation. The **historic bonds** of regions and therewith associated similar cultures, languages, political attitudes, economic disparities etc. vary and cause different levels of permeability across borders. This has consequences on the organization and character of cross-border regions (O'Dowd 2002, 111; Perkmann 2007a, 259, 2007b, 866). Cross-border regions are often established as soft spaces because the latter offer the opportunity to bypass cultural, legal and political differences between the regions (Othengrafen et al. 2015, 223). Cross-border regions can resemble soft networks based on the exchange of communication and functional issues. Others are solely focused on the management of European Territorial Cooperation (INTERREG). Besides that, cross-border regions can have very stable structures and defined territories based on common rules and reciprocal duties. However, not all are effective in their public appearance (O'Dowd 2002, 111; Perkmann 2007b, 863ff.). It is remarked critically that cross-border regions purely established to access EU funds exist often only for a short period and are developed without profound basis of shared interest. Therewith they have an unnatural character and no mutual personal relations exist. Furthermore, cross-border initiatives are said to be often only focused on few functional issues and would concern very small areas which overlap with other cooperations. These characteristics are said to challenge the maturity and coherence of crossborder regions as territorial boundaries (Johnson 2009, 183). Perkmann considers it to be premature to evaluate such cross-border institutions as an establishment of new types of territory because they are less powerful and less established than domestic public authorities (Perkmann 2007b, 876).

Despite this criticism, O'Dowd emphasizes the high **symbolic importance** of an enlarged number of cross-border initiatives: they demonstrate the overcoming of state sovereignty and illuminate the

<sup>&</sup>lt;sup>15</sup> More information on the territorial shape of cross-border regions can be found in **chapter 3.1**.

#### 2 Theoretical framework: the rationale and influence of European Union policy making

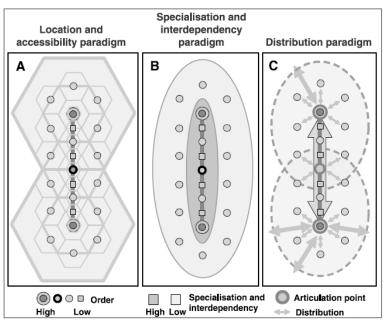
existence of a multi-level governance system of the EU (see chapter 2.2) with shared responsibilities across different levels and the involvement of non-governmental actors. Furthermore, cross-border regions show disengagement between the state territory and relational, functional as well as social spaces. Additionally, besides programming tasks, cross-border cooperation fosters the communication across borders and establishes participative policy arenas for exchange. The national levels still remain to be an influential player in these regionalization approaches. In most cases it is the national levels that take the final decisions about infrastructure investments. Therewith O'Dowd also acknowledges a lacking power of cross-border regions in terms of commandment of financial means and structural stability which hinders them to become new territorial boundaries independent of their involved national levels (O'Dowd 2002, 123). Anderson and O'Dowd argue that national territories need to be linked to the cross-border regions and social boundaries (Anderson and O'Dowd 1999, 602). O'Dowd sees crossborder cooperations as pioneers of a 'more democratic' European integration (O'Dowd 2002, 125). The Council of Europe expected in the 1990ies cross-border cooperations to be a starting point of **political** cooperation and convergence within the EU. In any case these functional cooperations across borders blurred national borders, shaped a new type of territorial governance and challenged the former exclusive steering of the territory by the member states. Furthermore, cross-border cooperation is seen as more effective contribution to European integration in a bottom-up process than the negotiations between the member states. The Council of Europe was one of the first European actors that actively supported the establishment of cross-border regional spaces of cooperation. It tried to assist these cooperations with the establishment of legal supportive instruments (Madrid Convention) (ibid., 115).

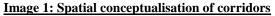
**Corridors** have been created as another new type of spatial boundaries. They can be used as analytical concept for the evaluation of a status quo or as planning concept which contains future objectives (Vries and Priemus 2003, 226). Corridors can comprise several policy sectors and levels. Examples are the use of corridors in the fields of transport, ecology, economy, infrastructure, urban planning and as a concept in political science (Witte 2014, 19). In practice, however, the development of corridors has often focussed on single sectors and levels and has not used the potential integrative character. A further challenge of the corridors has been their transnational governance. The domestic policies of the countries involved, need to be coordinated so that they do not contradict each other and hamper a common corridor development. In addition, different domestic regulations and political approaches complicate a coordination of the multitude of actors from different countries, levels and policy sectors (Priemus and Zonneveld 2003, 173; Vries and Priemus 2003, 227; Witte 2014, 19). Thus, de Vries and Priemus recommend establishing the institutional capacity to cope with the complexity of corridors and develop a platform of cooperation between the actors. The governance structure of corridors should be transparent, informative and interactive to increase the involvement of important stakeholders from different sectors and levels as well as the public. Domestic actions and strategies within the corridor should be monitored and made accessible to other involved domestic structures. Furthermore, joint decision-making across borders should be made possible and the sectoral policies should take into account spatial strategies. Thereby the researchers propose to adapt a place-based approach (Vries and Priemus 2003, 227).

Corridors' spatial boundaries are characterized by a **linear shape** and are usually interrelated with their surroundings, often located within agglomerations (see **Image 1**). Furthermore, they are usually linear because the development is structured by a transport infrastructure, because of natural reasons like rivers or coast lines or because of historic trade relations. The latter is especially true in the case of urban corridors (Rodrigue 2004). According to Chapman, a very important feature of corridors is the aim to **connect** and transfer goods and people between different nodes (Chapman et al. 2003, 190).

Corridors have a direct and often costly influence on the local scale where they are constructed but shall be beneficial for a larger zone. In addition, the farther surrounding area which does not benefit from the

concentrated corridor development might be disadvantaged. Therefore the concept is discussed controversially. The **interests** of **different scales** need to be taken into account when developing and governing a corridor (Priemus and Zonneveld 2003, 175; Albrechts and Coppens 2003, 223; Witte 2014, 22). However, the **spatial patterns** of corridors are often **overlooked** in European policy-making and transport development although there has been a growing demand on EU level for stronger transnational territorial governance in order to reach territorial cohesion. It is said to be a challenge to combine the spatial and sectoral strands of a corridor development under a common governance structure (Witte 2014, 27; Priemus and Zonneveld 2003, 176). The first forms of corridors have been developed to plan the further extension of transport infrastructures within several scales. However, the corridors never crossed national boundaries.





Source: Rodrigue 2004, 149.

Since the 1990ies the concept has also been applied in EU Transport Policy, however in a broader sense: the corridors were applied in cross-national boundaries to better link the member states with each other. They were to enable an unhampered passing across spatially and administratively demarcated boundaries. Additionally, economic disparities have been to be minimised by linking economically prosperous regions with those lagging behind. Thus, transport development has been linked to economic cohesion. An example is the establishment of the **Trans-European Transport-Networks (TEN-T)** that followed this strategy (Priemus and Zonneveld 2003, 169; Witte et al. 2013, 511).

A cross-sectoral application of corridors in a multi-level arrangement which considers the spatial impacts would be desirable to comprehensively take into account the effects of the corridor. Still such an approach requires elaborate and costly governance because of its **complexity**. This might be a reason for the low application rate mentioned in the beginning (Witte et al. 2013, 512; Priemus and Zonneveld 2003, 174).

**Macro-regions** are another type of boundaries that developed out of European integration processes. They are transnational spaces of territorial intergovernmental cooperation like border regions and are categorized as soft spaces. They cover larger but flexible spaces independent of administrational boundaries. Macro-regions have been developed to cooperate in fields of common interest (priority areas) and coordinate the impact of domestic policies and other existing initiatives on the territory. The European Commission coordinates their development. Therefore Metzger and Schmitt accredit the concept a high importance in terms of spatial planning: earlier concepts like the ESDP were only established as a product of intergovernmental bargaining without EU involvement. In macro-regions public and private national and regional actors prepare a common strategy of cooperation and are responsible for its implementation. Thus, macro-regions contain actors from different administrative levels (Metzger and Schmitt 2012, 263; Allmendinger, Chilla, and Sielker 2014, 2711).



Image 2: Spatial shapes of the EU macro-regions

Source: European Commission 2015d.

Also Atkinson and Zimmermann 2018 argue that there is a high potential for the discipline of spatial planning to develop macro-regions and create common visions for the territory. However, if this potential is being used is said to depend on the involved member states and the domestic role of spatial planning (ibid., 22f.). In the beginning, macro-regions were not supposed to establish new institutions, to get extra financial support and to change regulations. Instead they were to be developed with the available resources of the involved member states. However, after some time, committees and mutually binding aims were established in combination with a common articulation of the macro-regional area. This might imply tendencies of hardening to reach durability (Metzger and Schmitt 2012, 263; Allmendinger, Chilla, and Sielker 2014, 2711).

Besides the development of multi-level governance European integration processes have promoted the development of new spatial entities which overcome the traditional administrative borders of the EU member states. Among them are cross-border regions and transport corridors which have been defined in the EU. These are important objects of interest of this dissertation as these were actively promoted by the two policies to be analysed. Their role will be explored further in the course of the analytical part of this dissertation.

## 2.2.4 European integration - importance for this dissertation

European integration is an overarching process and initiator of multi-level governance, soft spaces - such as cross-border regions and corridors -, cross-border cooperation, the development of EU policies – such as the TEN-T and ETC - and their implementation. European integration theories are important to understand the relations between the supranational, national, and subnational levels within the EU and how an EU policy travels from supranational level to a cross-border region. Additionally, they explain in which ways the EU policy implementation is influenced by the institutions and actors from the administrative different levels.

In the next chapter, the second strand of the theoretic framework, Europeanisation, is presented. It is strongly interwoven with European integration.

## 2.3 Europeanisation

Europeanisation describes the impulses that take place because of the EU existence. It is defined as a continuous process without concrete ending (Lenschow 2006, 57). The EU is expected to influence domestic politics by limiting the member states' choice and by introducing normative demands. Furthermore, it might shape the national interests and identities through learning processes. Europeanisation is a spin-off of multi-level governance research (Pollack 2010, 37). Europeanisation processes can happen at different stages of a policy process (see **chapter 2.4.1**): while the programme setting, implementation and by chance with a low influence of the EU (Bulmer and Radaelli 2004, 3). Besides that, Europeanisation can influence all elements of a domestic policy process such as measures, stakeholders and resources as well as normative and cognitive scales and the policy style (ibid., 15).

The definitions of Europeanisation are discussed controversially as Europeanisation is often presented as a wide concept. Several scholars argue that the concept of Europeanisation should be demarcated from other processes in order to clearly differentiate the influence of the EU from external influences (Lenschow 2006, 57). Radaelli, for instance, demarcates Europeanisation from the concepts of convergence, harmonization of domestic politics, European political integration and EU policy-making. European integration is a prerequisite for and the initiator of Europeanisation processes. Additionally, EU policy-making in practice involves Europeanisation processes and vice-versa. However, he argues to demarcate it sharply from the process of policy-production and the sole analysis of a policy outcome in the member states<sup>16</sup> (Radaelli 2000b, 6).

In the beginning, Europeanisation research focused mainly on the top-down dimension of Europeanisation: In 1994, Ladrech was one of the first scholars that analysed Europeanisation by investigating the effects of the EU membership on the French domestic system. He and other scholars found out that the existing domestic politics shaped the implementation of EU policies in the respective member states. The EU politics have not led to a total alignment of the member states (Bache 2008, 9) which increased the interest in the differentiated outcomes of EU influence and in the analysis of policy implementation (see **chapter 2.5**) (Pollack 2010, 37). Later research additionally took into account the role of member states in EU policy-making, the so-called "upload" (Bache 2008, 9) of policies and differentiated between several types of activeness, e.g. Börzel 2002 (Bache 2008, 9).

## 2.3.1 Dimensions and mechanisms of Europeanisation

There are four different dimensions or mechanisms of Europeanisation discussed in the scientific literature: Top-down, bottom-up, horizontal and cyclical (Lenschow 2006, 57).

<sup>&</sup>lt;sup>16</sup> In his approach, Radaelli solely focuses on top-down Europeanisation. Therefore, he does not take into account the role of bottom-up Europeanisation in policy making.

*Top-down* Europeanisation describes processes that take place at domestic level caused by the EU level. An example is the influence of EU policies and regulations on national policies. An analysis of topdown Europeanisation has the advantage that the EU 'products' are easily identifiable in contrast to bottom-up Europeanisation. The investigation of **top-down Europeanisation** has to be distinguished from implementation analysis which is a related field. The former typically **analyses the three fields of polity, politics and policy impacts at domestic level.** These three fields interact. Implementation analysis, however, usually focuses on the domestic policy level (ibid., 57). Often the concept of Europeanisation is limited to the top-down dimension. Several scholars focus their research on the impact of the EU, its policies and its governance system on the member states (Bache 2008, 9)

*Bottom-up* Europeanisation describes the impact of the member states on the EU. Lenschow, however, argues that this dimension would rather be a synonym for European integration (Lenschow 2006, 57). European integration is considered by the author of this dissertation as a much broader concept than bottom-up Europeanisation (see **chapter 2.1**).

*Horizontal* Europeanisation between national levels that are most presumably EU member states runs independently of the EU but can also be facilitated by the European level for instance through the support of the exchange of experiences (ibid., 57).

*Cyclical* Europeanisation is a rather flexible dimension that is related to the top-down dimension as it takes some influence from EU level and reacts on it: Bottom-up processes are started to influence the EU level or implement issues at national level without direct EU pressure but caused by the influence (ibid., 57).

The different dimensions of Europeanisation show that the supranational level is not the only influential actor shaping the EU: also actors at national or even lower level that benefit from the EU environment can evoke changes (ibid., 57).

#### **2.3.2 Reasons for Europeanisation processes**

Different Europeanisation theories have been developed to explain why Europeanisation processes take place. They are presented shortly in this chapter. These theories can be used as heuristic device to explain Europeanisation, the practice, however, is much more complex (ibid., 63).

#### Europeanisation by pressure

According to rational choice institutionalism, which was already mentioned in chapter 2.2, Europeanisation takes place because of a reallocation of formal resources and opportunity structures i.e. a new distribution of power among the actors involved in policy-making. A perceived policy-'misfit' between EU and domestic level activates stakeholders at domestic level to exploit the situation to pursue their own interests. Possible strategies are evaluated through a rational cost-benefit analysis taking into account the expected actions of the other stakeholders involved. This process is influenced by actors that are able to block policy change, so-called 'veto-points', and institutions that support stakeholders with resources to use this opportunity. If the decision-making power is highly spread to a large amount of actors it is very hard to achieve policy change (Börzel and Risse 2000, 1). The degree of domestic change depends on the degree of **pressure** from EU level. If there is a high pressure from EU level because of strong coercion or a high number of incentives respectively potential opportunities, it is very probable that the distribution of power changes and national veto-points can be flouted. A moderate pressure can also lead to domestic change but only if supported by formal institutions. If many vetopoints exist, the domestic change - at best - will be accommodated. In the logic of sociological institutionalism, however, high pressure will lead to any change (inertia). It is considered that much time is needed to result in total change. Abrupt change will happen rarely. This might be the case in crisis situations or in case of external coercion. Strong domestic change is rather expected in times of medium pressure when the EU influence is reconcilable with jointly shared values although it might be time consuming to reach accommodation or even transformation (ibid., 10).

## Europeanisation by learning processes

Besides Europeanisation taking place because of EU policy pressure, the **learning dimension** causing Europeanisation should not be disregarded. Learning processes can take place in all different modes and governance models of Europeanisation. Still, it is especially relevant in policy areas where the EU does not have the sole competence (Bulmer and Radaelli 2004, 11) as this is an additional channel of influence.

Learning processes take place voluntarily and are based on conviction. In such areas 'discourse communities' emerge that share their views in certain policy fields. The Open Method of Coordination (OMC) is an example for policy learning. It was introduced by the Lisbon Council in 2000 and defines the EU as a means to exchange best practices and to bring domestic policies closer to EU aims. Based on the exchange at EU level, the member states are expected to develop their own policies. Besides that, there are several other forms and communities of learning that mostly involve the respective domestic elites. However, it is not assured that the member states involved in the discourse develop similar policies although sharing the same beliefs and interests (ibid., 11).

According to *sociological institutionalism* "socialization and collective learning-process[es]" (Börzel and Risse 2000, 2), lead to the creation of **new identities** and the acceptance of new norms based on persuasion. A 'misfit' is perceived in a disharmony of EU standards with domestic norms and values. This perception is intensified by the existence of so-called 'norm entrepreneurs' as epistemic communities or advocacy networks. Their aim is to change norms at domestic level by mobilizing others to follow them. An open political atmosphere and culture that fosters cooperation of stakeholders with joint convictions compensates negative effects of policy change and facilitates domestic change (ibid., 1). According to Atkinson and Zimmermann (2018) the debates on European Spatial Planning in the early 1990ies were based on the aims to exchange about domestic spatial planning and create a common understanding and discourse on the territorial development of the EU but without 'material' interests (ibid., 3). This initiative can be seen as a form of socialization and learning and Thus, an impetus for Europeanisation. In order to understand the effects of Europeanisation on domestic structures the next chapter presents information on which effects Europeanisation can have.

## 2.3.3 Evaluating Europeanisation

Europeanisation has different degrees of impact: its outcome intensity varies between the adoption of new policies and the shaping of values and beliefs (Bulmer and Radaelli 2004, 3).

When analysing the influence of a EU policy on domestic level and therewith measuring Europeanisation, the contents of the policy when adopted at EU level and the contents of the policy after the implementation by the member states should be compared to evaluate the differences (ibid., 3).

To evaluate the change induced by top-down Europeanisation a scale was developed. It consists of different levels of change: 'inertia' – 'retrenchment' – 'absorption' – 'accommodation' and 'transformation'. In the case of inertia the domestic levels ignore the EU level. The retrenchment stands for a preserving of the old structures without adaption. The absorption level is reached when the national level includes the EU impulses but this does not result in a substantial change of the existing structures. Domestic change takes place only marginally. Accommodation stands for an adjustment of the existing domestic structures according to the EU features. Still, the main structures don't change essentially but more than with absorption - a modest domestic change takes place. Transformation, finally, changes the whole domestic structures according to the European demand – the domestic change is high (Lenschow 2006, 62; Börzel and Risse 2000, 10).

Complete political convergence of the EU member states is not expected because the member states' institutional setting and actors that are concerned and mediate in case of EU pressure differ too much (Börzel and Risse 2000, 12). Due to the high variety of Europeanisational influence, Bulmer and Radaelli suggest to clearly define which influence of Europeanisation is to be evaluated in a dissertation. It should be differentiated between changes of elements of the policy process, cognitive and normative dimensions and actual policy influence after implementation (Bulmer and Radaelli 2004, 15).

## 2.3.4 Europeanisation - importance of for this dissertation

The concept of Europeanisation is very relevant for this dissertation as it describes and explains processes that develop because of the EU existence and evaluates their influence on the member states. Europeanisation processes are often started because of EU policy-making. It can be caused by pressure or voluntary learning processes<sup>17</sup>. A Europeanisation outcome can be a new or amended domestic policy or less visible influences like changed believes and values. Europeanisation has different dimensions. In this dissertation the focus will be laid on **top-down Europeanisation** as the aim is to analyse the influence of two EU policies on domestic policies and the cross-border transport practice in cross-border regions. This approach has been taken by most scientists in empirical analysis of Europeanisation have taken place through the facilitated exchange of experiences, i.e. **learning processes**, caused by the EU policies.

The aim is to measure to what degree the EU policies' aims are implemented by the domestic policies and in cross-border transport practice. Thus, the investigation focuses on the analysis of Europeanisation in **policy implementation**. Potential influence factors on top-down Europeanisation - in the case of policy implementation - are discussed in **chapter 2.5**.

## 2.4 Policy making in the European Union

This dissertation focuses on public policies that are prepared by public administrations and governments as answer to public challenges. Policy making of public policies is traditionally steered by legal documents as treaties, constitutions and regulations and is therefore not very flexible (Guasco 2015, 23). European policies, however, have tend not to be always precise and leave room for interpretation in their implementation process (Bache 2008, 16). Thus, this leaves a certain degree of flexibility in the policy implementation by the member states. As Guasco and other scholars argue domestic traditions and cultures influence the domestic implementation (Guasco 2015, 23) which leads to differentiated policy outcomes (see **chapter 2.5.2**).

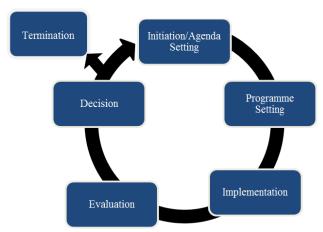
National policy styles are Thus, very relevant for this dissertation as they influence the implementation of EU policies. Relevant national styles will be discovered in the later analytical part of this research. In this chapter, the focus will be laid on the basics of European policy-making to understand the development of the two policies analysed and the process through which they are to be implemented.

## 2.4.1 The policy cycle

The process of policy making can be described in a policy cycle. The cycle starts with the **Initiation** phase or **Agenda-Setting** in which the problem is defined that shall be addressed by the new policy. Here the aim of the policy needs to be defined (Prittwitz 2011, 3). Within this phase basic decisions are taken concerning the structure, priorities and the actual problem, other potential problems might be ignored (Jann and Wegrich 2003, 83). The second phase (**programme setting**) is dedicated to formulate the programme that reacts on the defined problem. Before the actual formulation an information research needs to be conducted, aims need to be formulated and alternatives need to be considered and to be

<sup>&</sup>lt;sup>17</sup> More information on the influence of the EU policy character will be given in **chapter 2.4.2**.

evaluated so that at the end one alternative is chosen. Alternatives are often chosen not based on a rational choice but as a product of the interest and power of certain actors (ibid., 85).





Source: Author, Kaiserslautern, 2017, based on ibid., 82

In the next phase (**implementation**) the programme is implemented by the responsible institutions or organisations. In this phase where the programme needs to be interpreted first before it can be put into practice the former intentions of a programme are not necessarily implemented. Sometimes, the implementing bodies are not even part of the same administration. The implementation consists of three main elements: first the programme needs to be concretized: Who is responsible, what needs to be done. Second, it needs to be decided which resources are available to implement the programme and third, the decisions need to be taken and put into practice. The implementation phase is often seen as the most important phase that decides about the success of a policy. Depending on the policy's character – regulative, financial or informative – different problems can occur in the implementation process. Often the implementation of regulative policies is hard to be controlled or faces opposition by the addressees whereas financial programmes can be abused so that the funds are distributed in an inefficient way (ibid., 89).

Afterwards an **evaluation** of the policy is to be conducted that controls the implementation. It is to be analysed if the aims or intended impacts of a policy are reached (ibid., 92). If the policy does not fulfil its original aims, at this point actions can be taken to improve this (amendment). An imprecise definition of policy aims hinders the evaluation of a policy. This, however, is popular because it minimises the risk of a policy failure (ibid., 93). In the last phase (**decision**), following the evaluation it has to be decided if the policy has to be amended and newly defined so that the process will start from the beginning or if the policy will be terminated (Schneider and Janning 2006, 48).

In practice the phases of the policy cycle are not separated but their borders are rather fuzzy. Additionally, policies are usually not developed out of a sudden but as extension or change of existing policies and possibly generate new problems (Schneider and Janning 2006, 49; Jann and Wegrich 2003, 81). Furthermore, the phases of the policy cycle can occur in a different order and several policy cycles exist in parallel at different levels that can influence each other (Young 2010, 47).

The phases of the policy cycle are influenced by different actors. The implementation and evaluation phase are strongly shaped by societal actors besides the government. Also the phase of agenda setting is often initiated by non-governmental experts and their newly produced evidence or knowledge. The implementation of a policy is clearly dependent on the efforts of the subnational administrations and other actors that implement these policies by often deriving own regional policies.

Whereas policy making within one country is already pretty complex in terms of involved actors, policy making within the EU – and across borders - is even more complex because it involves an even larger number of actors and processes at different administrative levels (see multi-level governance in **chapter 2.2.2**). In the evaluation of a policy implementation within the EU therefore the influence of all involved levels from supranational to local level has to be taken into account as well as the influence of other societal actors and circumstances (Guasco 2015, 24).

## 2.4.2 Basic principles of policy making in the EU

The European Union produces many policies and regulations every year. Therefore it can be considered as a political system (Hix and Høyland 2011, 13). As the EU political system has existed since several years, not only new policies are produced but many old policies need to be amended and revised to new circumstances and states of knowledge (Richardson 2006, 8). The role of the EU in policy making has been growing as the number of policy sectors which the EU takes care off grew over the years and is expected to do so in the future (ibid., 4).

The EU has the **competence** to develop policies in predefined fields. The Treaty of Lisbon clarifies these. In the fields customs union, competition rules (for the internal market), monetary policy (for Euromember states), marine biological resources and common commercial policy the EU has the 'exclusive competence' which means that it is the only body that decides and legislates (European Union 2012, 3). In several policy fields, among others cohesion, transport and TEN-T policy the EU has a 'shared competence' with the member states. However, the EU has precedence: only if the EU has not adopted binding acts in this field, the member states can develop their own legislation. In the case the EU developed policies the member states have to implement them. Albeit, according to the principle of subsidiarity, the EU can only legislate if the action is more effective at EU level and cannot be exercised at member state level as well (ibid., 4). The third possibility is the 'supporting competence'. Here the EU can not legislate but can complement, support and coordinate the action of the member states. Examples are education, administrative cooperation and health (ibid., 6). Several EU policies have priority over national law based on the principle of subsidiarity (Richardson 2006, 4). Each policy area has its own logics and important actors. Thus, it is important to know the context of a policy development and implementation to evaluate its outcome (Young 2010, 52).

#### **Policy-making process**

The member states lost their sole sovereignty in many public policy fields and now have to negotiate with the EU organs and the other EU countries at transnational level (Richardson 2006, 4). National policies in many fields have been 'Europeanized'<sup>18</sup> because of the grown importance of EU law (Robert et al. 2001, 137). Still every member state keeps its own national system. The **two political systems** exist in parallel. Intergovernmental negotiations between the member states take place in the Council of Ministers in which decisions about future EU policies are taken (Richardson 2006, 6). The phases of the policy cycle are shaped by a communication between the supranational and national levels. Also conflicts can come up because of diverging interests. Thus, the **national levels** are involved in EU decision-making. In the initiation or agenda-setting phase of EU policies the competent domestic authorities can take part and influence the decisions. Therewith they have the chance to represent their member state's interests and compensate some sovereignty restrictions. The programme setting phase as well involves national actors. They contribute to the development of a framework on the policy implementation of all member states. At national level further measures are taken to prepare the implementation of the policy. In the control of the policy implementation the European Commission is supported by domestic administrations as well (Robert et al. 2001, 137). The member states are

<sup>&</sup>lt;sup>18</sup> More information on Europeanisation can be found in **chapter 2.3**.

dependent of each others decisions. This is because most decisions are taken by qualified majority voting so that the opinion of minorities is overruled. The decisions have a material value for the stakeholders. Furthermore, EU policies can be very complex and be in line with one national strategy but contradict another strategy that is settled within another domestic policy sector of a member state (Richardson 2006, 14).

At the same time, several different types of **policy networks** (see **chapter 2.2**) are in place that involve actors from all administrative levels of the different member states (ibid., 6). Richardson argues that analysing the actors involved in a policy process is a means to find out how policy proposals develop in the EU. There are several constellations that try to describe the relations between actors and policy development in the EU: Policy communities, issue networks, epistemic communities, and advocacy coalitions. The actors of the two first models have an interest in EU policy and want to achieve certain aims. 'Policy communities' consist of few clearly identified actors that are really powerful and show very stable ties between the stakeholders involved. 'Issue networks', in contrast, are rather loose cooperations because of a high amount of members and it is not easy to identify how the power is distributed (ibid., 10). These latter two groups are expected to be mainly active in the policy formulation or programme setting phase of the policy cycle (Dühr, Colomb, and Nadin 2010, 103). It is considered to be very important to engage in the policy process to reduce possible risks and uncertainties (Richardson 2006, 14). To do so, key actors get in contact with experts in certain policy fields to get advices. These experts approached by the key actors are often organized in so called transnational 'epistemic communities' (Sebenius 1992, 354). Roughly summarized, this group consists of experts in a certain field that share similar opinions and beliefs and is therefore considered to be trustworthy (Haas 1992, 3).<sup>19</sup> Sebenius argues that these epistemic communities can therefore lead to a convergence of the interests of stakeholders from different countries (Sebenius 1992, 354) and produce European expertise and values (Richardson 2006, 25). This shows, that the epistemic communities coordinate the policy process to a certain extent (Richardson 2006, 18; Young 2010, 61). Dühr et al. allocate the epistemic communities to the agenda-setting phase of the policy cycle (Dühr, Colomb, and Nadin 2010, 103). Their level of influence is dependent on the level of uncertainty and power constellations of the stakeholders involved (Haas 1992, 7). Richardson expects that the national interests and policies will loose their persistency at EU level through the involvement of multiple actors in the policy process. First, in becoming part of a transnational coalition to strengthen the implementation of common political beliefs, the involved actors have to come to agreements and consensus which approaches the beliefs of different actors. Second, because of the high level of uncertainty, the member states are forced to cooperate and coordinate their interests with each other (Richardson 2006, 23).

Additionally, non-governmental lobby and interest groups from different administrative levels as well as the European Union organs can influence the process which makes the outcome of a policy process difficult to predict (ibid., 6). To retrieve the trust in and support of the EU political system, the EU increased the participatory character of the process and involved a higher amount of stakeholders for consultation. This high level of participation in the policy process is nowadays regarded as fixed feature of EU politics (ibid., 8).

The political structure of the EU rather resembles an issue network due to the high number of actors and interests in the EU political framework. To have a say actors need to organize themselves and cooperate to achieve common goals (ibid., 10). The cooperation between several actors consists of negotiations of interest conflicts to reach consensus. This consensus needs to show an added value compared to the case of non-coordination (ibid., 14). Still, the policy process involves also clearly defined powerful actors: the **European institutions**. These diverse actor structures from different governmental levels as well as

<sup>&</sup>lt;sup>19</sup> For more detailed descriptions in the scientific literature see Haas 1992, Sebenius 1992.

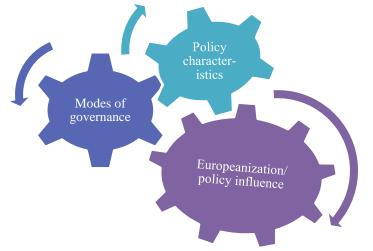
non-governmental actors involved in policy-making shows the existing **multi-level governance** character as described in **chapter 2.2**.

In contrast to policy processes in some member states, the EU policy process is not centralized and offers several opportunities to participate and influence the development of EU policies as illustrated above. As the EU internal structure and responsibilities can change easily over the years this is expected to lead to changes in the stakeholder structures and relations as well (ibid., 24).

The above description shows, actors and their relationships are very important in the EU policy-making. The EU therefore shows characteristics of **interactive policy-making**<sup>20</sup> instead of traditional purely authoritative policy making. Not the European institutions decide about policies in a hierarchical manner, also interest associations and other societal actor groups influence the policy-making. Guasco argues that within a cross-border region a legitimate authority for the cross-border territory might be missing in many cases (Guasco 2015, 24).

#### EU policy characteristics and their implementation

Dühr et al. defined two basic ways of decision-making in the production of EU policies: **Supranational** and **intergovernmental** decision making. Supranational decisions are initiated by the European Commission. The European Council and the European Parliament decide - mostly based on qualified majority voting (Dühr, Colomb, and Nadin 2010, 146). Intergovernmental decisions are initiated by the Council of Ministers and the European Council decides alone, mainly in unanimity. The latter case of decision-making makes it possible that only some member states establish common agreements, an example are the *Schengen Agreements* (ibid., 146) which leads to differentiated integration as already mentioned in **chapter 2.2**.



#### Figure 6: Causal relationship between modes of governance and types of policies

Source: Author, Kaiserslautern, 2017.

The policies produced at EU level have different characteristics and contain **different implementation requirements.** This is due to the different modes of governance in which they are developed (see **Figure 6**). When developed by consensus they are often criticized to be unclear and blurred including only vague demands for implementation. This is said to lead to a varying implementation of policies by the different member states (Young 2010, 61). Therefore Dolowitz and Marsh differentiate between the transfer of **flexible policies** which consist of general aims and more **concrete policies** which contain

<sup>&</sup>lt;sup>20</sup> More on interactive policy-making and authoritative policy making in Driessen, Glasbergen, and Verdaas 2001, Edelenbos, Klok, and van Tatenhove 2008 and Hajer 2009; Wallace, Pollack, and Young 2010.

implementation programmes and measures (Dolowitz and Marsh 2000, 12). This differentiation is very relevant as it can change the impact of a policy (ibid., 13).

EU policies can be developed in three different types of governance processes: hierarchical governance, facilitated coordination and negotiated governance. Depending on the modes of governance in the policy-making process distinct types of policies are produced which range from positive integration and negative integration to coordinating policies (Knill and Lehmkuhl 2002, 256; Bulmer and Radaelli 2004, 4). Some policies are binding and have to be implemented within a certain time, other coordinating policies are solely considered as recommendation for a voluntary implementation (Radaelli 2000b, 17).

In **hierarchical** governance processes, the European institutions have a high amount of power and can enforce the contents of their policies and their implementation in the member states. Here, it has to be differentiated between two types of EU policies: positive and negative integration. These types bring about two different Europeanisation mechanisms (Bulmer and Radaelli 2004, 5f.).

**Positive** integration is based on a supranational policy that has to be implemented actively by the member states. The EU policy is attached with a high pressure and needs to be implemented according to the requirements prescribed at EU level (Bulmer and Radaelli 2004, 5; Knill and Lehmkuhl 2002, 256). There are three types of EU policies which are legally binding: EU **directives** have to be transposed by the member states into national law within a certain time. Here most differences are expected because the member states interpret the directives freely and implement it based on domestic circumstances. EU (Young 2010, 62; Warleigh-Lack and Drachenberg 2010, 213; Dühr, Colomb, and Nadin 2010, 149). The EU can enforce the implementation of the legislation (see below). Europeanisation takes place in a top-down manner (Bulmer and Radaelli 2004, 5; Knill and Lehmkuhl 2002, 256). An adjustment of domestic policies is expected when moderate changes are to be taken in the domestic policies to comply with the EU regulations and the actor constellations and opportunity structures are convenient (Knill and Lehmkuhl 2002, 258; Bulmer and Radaelli 2004, 13). If policies solely contain hierarchical instruments with an accurately prescribed implementation process it might lead to a strong implementation deficit because the member states have very different policy systems (Knill 2006, 358; Knill and Lenschow 2000, 4)

In **negative** integration, EU policies are developed in a top-down manner as well. The policies contain general rules on the functioning of the European Union and its market, as often embedded in the European treaties. The member states do not directly have to implement these policies into practice (Radaelli 2000b, 17). EU regulations are applicable directly within the member states and binding. Also EU decisions are automatically implemented and are binding for the addressees (Dühr, Colomb, and Nadin 2010, 149ff.). However, the EU influences and challenges the status quo of the existing domestic institutional opportunity and power structure. An example for negative integration is the creation of the European Single Market. The direct EU influence led to the removal of barriers between the member states but left it to the member states what they do with it. It indirectly influenced the member states by initiating a competition among them and started a horizontal Europeanisation process (Radaelli 2000b, 17). The member states compare themselves and compete with each other in attracting skilled labour and capital. Due to the competition they adapt their domestic rules to those of successful member states. A challenge in measuring the contribution of negative integration to Europeanisation is to isolate the European from the global influence (Bulmer and Radaelli 2004, 5; Knill and Lehmkuhl 2002, 256). For the policy implementation it is considered to be favourable when power and resources are evenly distributed among the actors and when the policy context is discussed controversially. Furthermore, the probability of domestic change is expected to be high when the EU policy strengthens those actors that are in favour of the EU objectives through an amendment of the existing opportunity structures. The implementation of negative integration policies is said to be very dependent of the actor constellations (Knill and Lehmkuhl 2002, 259; Bulmer and Radaelli 2004, 13).

In contrast to hierarchical governance processes, the member states are the key influencer in the outcome of **facilitated coordination** processes. However, the supranational institutions' act as initiator of potential changes (top-down). Here coordinating policies are developed which promote horizontal Europeanisation processes. They are initiated in policy fields where the EU has no legal competence, in cases where unanimous decisions need to be taken or when the exchange of practices and ideas is facilitated by the EU. The coordination happens on a voluntary basis: If no agreement among the member states can be reached, the process will not have a domestic impact (Bulmer and Radaelli 2004, 7; Lenschow 2006, 57).

**Coordinating policies** contain **political declarations** or not legally enforceable **guidelines**. They shall lead to a cognitive change of domestic believes. They do not directly exert pressure on the member states (Bulmer and Radaelli 2004, 7) but are based on voluntariness and cooperation. Negotiation arenas for the discussion of common policy interests and the exchange of experiences can be established, supported by the EU. The participants involved, however, do not commit themselves to implement certain actions. The exchange can lead to policy-learning and socialisation processes and finally to the adaption of national policies on voluntary basis. Domestic politicians might perceive soft policies as useful and confirmatory and develop reforms. Additionally, an indirect pressure can be exerted when the majority of the member states has implemented the EU policy on a voluntary basis. The residual member states might feel the need to imitate the forerunners, in so-called 'mimetic' processes. Therefore, soft policies are often used as preparation for future more direct EU policies (Warleigh-Lack and Drachenberg 2010, 217; Bulmer and Radaelli 2004, 7; Lenschow 2006, 57). These types of policy instruments are applied in fields of limited EU competence and strongly differing national conditions (Warleigh-Lack and Drachenberg 2010, 217). An example is policy-transfer (see chapter 2.5.1) (Dühr, Colomb, and Nadin 2010, 105). These flexible policies can be amended to different administrative and political domestic systems or differing sectoral conditions easily. Such alternative policies might be developed to impact the policy context to simplify the policy implementation in general. This can happen via a mandatory public participation or by offering economic incentives (Knill 2006, 358; Knill and Lenschow 2000, 4). The implementation and influence of coordinating policies is strongly dependent on actor constellations and opportunity structures (Knill and Lehmkuhl 2002, 262). According to Bulmer and Radaelli the effects of learning processes are very difficult to measure because local contexts play an important role and it is hard to differentiate the impact of European influence and of domestic influence (Bulmer and Radaelli 2004, 13). For that purpose the current discourse of the policy-makers at the European level and the discourse at domestic level could be compared (ibid., 14). However, it is difficult to find out if the national discourse has been developed out of learning effects at EU level (Kohler-Koch 2002).

**Negotiated governance** processes take place in fields where the supranational institutions are less powerful than in hierarchical governance processes and the decisions are based on the member states' negotiation. The end product is usually a mixture of several national approaches – only in few cases the national approach of a sole member state dominates. A high intensity of Europeanisation in EU policy-making is reached when the member states have similar preferences, the European Council of Ministers targets majority voting and when several negotiations take place in a row so that a high degree of mutual learning and shared beliefs are fostered. If no learning processes take place, the effects of Europeanisation are more fragile (Bulmer and Radaelli 2004, 4f.). Negotiated governance can produce positive and negative integration policies as well as coordinating policies (ibid., 8).

In **practice**, it has to be taken into account that most policies are more complex and cannot easily be categorized in one sole of the above described modes: Hybrid forms that are mixtures are often the reality. The differentiation, however, helps to categorize the different effects of Europeanisation (Bulmer and Radaelli 2004, 16; Knill and Lehmkuhl 2002, 256; Radaelli 2000b, 17). According to Bulmer and Radaelli the biggest effects of Europeanisation are expected to be reached in the *hierarchical governance (positive and negative integration)* and *facilitated coordination governance*. Less effects are expected in *negotiated governance* (Bulmer and Radaelli 2004, 4).

Further categories for EU policies according to Dühr et al. are (Dühr, Colomb, and Nadin 2010, 146):

- redistributive policies, based on financial instruments
- infrastructural policies, based on development plans and
- exchange policies, based of exchange of knowledge, research and innovation.

The Commission **controls** the implementation process of the **formal EU directive** policies. If a state does not (fully) fulfil this obligation the European Commission can initiate infringement proceedings. The first step of this procedure is to contact the responsible bodies of the member state and inform it of its concerns. If nothing improves, a reminder letter will be sent. The member state has another chance to improve. If it does not the Commission gives a 'reasoned opinion' where it formally explains the infringement of Community law and defines a deadline for the state to react. Only then, the Commission can involve the European Court of Justice that will decide about the infringement and the obligations of the member state. The member state can be punished by paying fines. Although many reminder letters are sent only few implementation deviations end up at the European Court. Most are clarified through the communication with the Commission in the last minute (Knill 2006, 353; Dühr, Colomb, and Nadin 2010, 155). In comparison to policy making within the member states, the EU is not exclusively entitled to enforce the implementation of its policies. This is an important difference (Hix and Høyland 2011, 13).

As a weak formal EU policy implementation has been reported European scholars argue that the EU has a "systematic implementation problem" because the European Commission lacks resources to monitor the implementation of EU policies into national law in every detail. Additionally, it is not easy to measure the degree of (in-)accurate implementation (Knill 2006, 352; Hartlapp and Falkner 2009, 282).

Before the 1980ies the shortcomings in the implementation of EU policies had not been discussed broadly by the European Commission. This was due to strategic reasons. It was feared that the member states would be more reluctant in their support of the enlargement of the EU competencies when the implementation of policies was monitored and controlled severely (Jordan 1999, 73). The member states on the other side were not keen to admit that they had problems in implementing EU policies (Knill 2006, 356). In the 1990ies effective EU-policy implementation became an important topic. The catalyst was the formulation of the aim to complete the European internal market until 1992 which incorporated the demand of equalizing the national laws of the member states and contributing to European integration (Debousse and Weiler 1992, 243). This objective caused severe discussions about the practicability of this aim (Knill and Lenschow 2000, 4). Additionally, the principle of subsidiarity and sovereignty of EU law was clarified together with the direct binding effect of EU legal acts on national law. The Court of Justice is described as "provider of ideas" and "provoker of political responses" (Alter and Meunier-Aitsahalia 1994, 557) and therewith a very important actor in the policy-making, implementation and -harmonisation process (ibid., 555). Still, despite an accentuation of EU law several violations have occurred in the implementation of policies (Weiler 1999, 75). Since 1984 the European Commission has monitored and evaluated the implementation of EU formal policies by the member states (Knill 2006, 356). The annual report which is produced by the Commission, however, solely focuses on statistical number of reminder letters, opinions and infringement proceedings but not on the details on the incorrect on incomplete implementation. Several other criticisms add to the uselessness of these reports for this dissertation.<sup>21</sup>

The evaluation of policy implementation is explored in depth in chapter 2.5.

## Challenges in EU policy-making

All phases of the EU policy cycle (see **chapter 2.4.1**) are more advanced and **complex** than in a solely national process. This is due to the high number of actors involved. In the agenda-setting phase, for instance, it is especially difficult to **define a common problem** and the approach to solve it. The negotiations process is even **longer** until consensus is reached. Also other international actors and institutions have an impact in addition to the member states. Furthermore, to ensure the implementation of EU policies, **many actors** from the different member states levels and policy sectors need to be activated and convinced to put the new policy into practice (Richardson 2006, 6).

As policy-making at EU level is influenced by many actors and is very complex it can be challenged because of different **traditions** and **styles of policy making**. Additionally, because of the plenitude of **actor groups** the prediction of policy outcomes is complicated. Furthermore, the EU political system is described as **not** being "**institutionally stable**" (ibid., 6) because its form is not regulated by a constitution. The system has changed frequently and been discussed controversially since many years (ibid., 5). Also the involvement and relations of the actors in the policy process change (ibid., 24). Policy actors might often not be aware of the existence and interests of other active stakeholders in the system and therefore act under **uncertainty**. Those that are aware of actors with a similar attitude for instance, can benefit and be more powerful (ibid., 14).

The EU produces policies in a high number of policy sectors. Therefore the EU policy sectors should be coherent and follow the defined aims and priorities. The different Directorate Generals of the European Commission are responsible for the **coordination** of the Commission's activities and the policy sectors (Robert et al. 2001, 139). This is not an easy task as EU policies show different spatial demarcations, aims and influences.

The EU political system and policy process change over time and are variable. In several cases the growing power of the supranational level led to **EU scepticism** and reluctant support in the extension of EU power at the expense of state sovereignty by the member states. Such notions also influence the policy making: an example is the diminution of produced directives in favour of softer policy instruments such as cooperation, best practice exchange and incentives (Richardson 2006, 4; Pollack, Wallace, and Young 2010, 501).

## 2.4.3 Policy making in the European Union - importance for this dissertation

In addition to the European integration theories, the basic principles of EU policy making are relevant to understand the framework in which this dissertation, and the two policies to be analysed, are embedded. Public policies at EU level are rather flexible and leave room for interpretation for member states. Thus, the implementation phase of the policy cycle is crucial for the policies' impact on the member state. Here the policy is interpreted and implementation needs are defined; the responsible actors for the implementation are identified and it is decided which resources can be spent. Based on this, the implementation process is started. Additionally, the whole implementation process is accompanied by multiple governmental levels and interest groups (advocacy coalitions) which can influence the outcome.

Furthermore, this chapter presents the different **characteristics** of policies produced by the EU which have a decisive influence on their implementation and their influence in the member states. Many of

<sup>&</sup>lt;sup>21</sup> More criticism see in Knill 2006, 356.

their characteristics depend on the governance modes in which they were developed. The implementation of flexible, general aims containing policies and more concrete policies with implementation programmes and measures are expected to lead to different outcomes. Additionally, important are the different implementation requirements of policies. The characteristics of the relevant policies for this dissertation (EU Transport, TEN-T, Cohesion Policy and ETC) and their mutual influence are analysed in detail in **chapter 4**.

As the policy analysis conducted in this dissertation will focus on the implementation phase of the policy cycle this phase is explained in more detail in the following.

## 2.5 Policy implementation in the EU

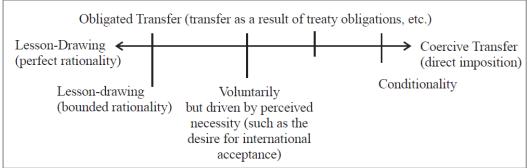
Pollack considers European policy implementation a 'disputed and understudied topic' (Pollack 2010, 37). In the following the most important characteristics and influencing factors of policy implementation will be presented in order to prepare a toolset for the policy implementation analysis.

The first section of this chapter presents the policy transfer concept which conceptualizes the way how policies are adapted from one level- e.g. the European Union - and implemented at another level - e.g. a member state and therewith describe policy implementation processes.

## 2.5.1 The policy transfer concept

Policy transfer describes the process of adoption of a policy in one political system of another political system. Usually policies are adopted from one country and transferred to another country or context. However, also the European Union contributes to policy transfer by recommending or even forcing its member states to adopt certain policies (Dolowitz and Marsh 2000, 5). EU policies can be developed based on practices already experienced by some (dominant) member states so that for some member states the change of national policies might be minimal and for others large. Alternatively, the European Commission develops its own policies that are to be transferred. Radaelli sees the European Union as a large policy-transfer platform. Besides the European Commission different types of interest groups influence the transfer process. When entering the EU, new states have to agree to a bulk of European legislation which is automatically transferred to them after agreement (Radaelli 2000a, 25). The EU influences the member states directly and indirectly. A direct influence is exerted through policies and funding requirements. An indirect influence is exerted by the EU's own research and reports (Dolowitz and Marsh 2000, 5).

In the EU context, the member states are obliged to implement formal policies. Besides that, they might feel the necessity by the comparison with other member states or financial incentives that are bound to certain conditions which motivates them (see **Figure 7**) (ibid., 13).



#### Figure 7: Motivations of transfer

Depending on the motivation and pressure a policy transfer does not automatically mean that the whole policy or programme is transferred to another context. Instead, policies can be transferred to different

Source: ibid., 13

2 Theoretical framework: the rationale and influence of European Union policy making

**degrees**: It ranges from a full transfer ('copying'), a transfer of basic ideas ('emulation'), a combination of several policies to a sole inspiration from another context that leads to a policy change (ibid., 13).

This can also be observed in the EU context. Especially when EU policies leave room for implementation after the transfer, the different policies implemented by the member states and their outcomes differ strongly.

Thus, the transfer can lead either to a harmonization and assimilation between the countries or the growing differences when the policy context is not appropriate. Besides **formal institutional transfer**, which involves politicians, civil servants and national officials, and where hard policies, such as legislation, approaches and concrete instruments are transferred, also network transfer can take place for instance in cross-border networks (Stone 2004, 562). For such a **voluntary transfer**, a need to change is to be felt or a problem needs to exist which cannot be solved with the existing instruments: This status is attributed with a high political importance so that stakeholders become active. Additionally, the **character of actors** involved is said to influence policy learning as well (Marsden and Stead 2011, 497).

Other success factors for a proper policy transfer are the complete **understanding** of the original policy and a **full adaption**. A partial transfer of a policy might lead to unforeseen difficulties and different outcomes than in the original context (Dolowitz and Marsh 2000, 17).

The next section presents further influencing factors for EU policy implementations.

# 2.5.2 Factors of influence on the results of policy implementation and top-down Europeanisation

As stated above, the implementation of EU policies is not an easy task. Deficits in their implementation are daily fare (Knill 2006).

The successful implementation of policies is influenced by two main factors as it is the case in policy transfer and Europeanisation: the **characteristics** of the policy - with respect to adaptation pressure and its contents- and the **initial domestic situation** including the involved actors in which the policy is implemented (Pollack 2010, 37; Smith 1973, 202). Therefore the implementation results and the policies' transferability depend on the characteristics of each case (Dolowitz and Marsh 2000, 17).

The different characteristics of a policy were already described in the previous **chapter 2.4.2** so that it will be focused here on the **initial situation** in which a policy is implemented. When comparing the implementation of a policy in different member states the different initial situations need to be taken into account because of which the implementation can differ without being caused by a different quality of implementation (Jordan 1999, 82; Hartlapp and Falkner 2009, 282). The initial situation or setting of implementation describes the preconditions for a policy implementation or transfer. They can be of political, economic, social and cultural nature. A voluntary networked policy transfer or policy implementation is more likely between countries with a similar initial situation (Spaans and Louw 2009, 2). The following influencing factors have been named by Europeanisation, policy transfer and policy implementation theories:

- Macro-**political structure** of a member state compared to the EU: among others the style of executive leadership (Radaelli 2000b, 22), supporting structures, organizational and political **culture**, power relations, openness to learning (Risse, Green Cowles, and Caporaso 2001, 9; Jordan 1999, 82) as well as **social models** (Spaans and Louw 2009, 2).
- domestic **responsibilities** for the policy implementation and implementing **authorities**' **structures** and **capabilities** (Knill 2006, 358ff.).

2 Theoretical framework: the rationale and influence of European Union policy making

- **Expectations** on the policy and transfer motivation taking into account the pressure for the public and the implementers (Smith 1973, 202ff.; Dolowitz and Marsh 2000, 13; Börzel and Risse 2000, 1).
- Timing: When a country is already in the process of changing its domestic policies it is easier to adapt to external (EU) influence (Radaelli 2000b, 22).
- Number and network of actors and levels involved in the policy-making process: the technocratic elite, politicians, civil servants and experts versus many actors including lobbying interest groups (e.g. European Transport Policy) (Radaelli 2000b, 22; Jann and Wegrich 2003, 91); and their interests as well as internal tensions (Smith 1973, 197ff.; Guasco 2015, 30).
- **Policy belief systems** of the member states which filter the policy discourse. Out of the discourse a rationale has to be developed which will be used as legitimacy to develop a new policy or adapt to the European discourse (Radaelli 2000b, 22).
- 'Goodness of fit': the probability of EU influence, i.e. domestic change, based on a comparison of the consistency of the new EU policy and the domestic policies (policy misfit) as well as the new EU regulations and domestic procedures (institutional misfit) before the actual EU policy implementation (Börzel and Risse 2000, 5; Bulmer and Radaelli 2004, 8) Thus, the efforts to be made to implement the EU policies (Radaelli 2000b, 22); A certain misfit needs to exist between the EU policy and the domestic policies in order to cause domestic change (Bulmer and Radaelli 2004, 9)(more see beneath).

Because of the many variables Smith argues that policies will not be automatically implemented once they are decided. He argues that the implementation phase is a crucial part of the policy process which can change the original policy a lot (Smith 1973, 199). Because of tensions and patterns in the implementation process it might happen that the policy implementation is never completed (ibid., 209).

As the 'goodness of fit' approach is a frequently named concept in Europeanisation, policy transfer and policy implementation theories, it will be described beneath in more detail.

#### 'Goodness of fit': institutional compatibility and policy pressure

Each EU policy does not solely contain thematic contents but also requirements that concern the implementation and application of a policy to ensure an assimilation of the domestic systems (Knill and Lenschow 1999, 608). Knill argues that the effectiveness of policy implementation is influenced by two main domestic factors: the 'institutional adaption' and the given 'institutional arrangements'. The existing domestic arrangements limit the scope of adaption (Knill 2006, 364). The adaption of traditional institutional arrangements to new arrangements demanded by the EU is not an easy process. The requirements can conflict with domestic traditions which can lead to a less innovative outcome after the implementation in the domestic contexts (Knill and Lenschow 1999, 608). The adaptation usually does not lead to fundamental changes of the domestic arrangements (Knill 2006, 365) as the adaptation can only be processed within certain limits and frameworks that have been erected by the existing institutions. The latter usually have a guarded identity but are flexible (March and Olsen 2009, 3). Still the compatibility between the EU requirements and the so far existing domestic institutional arrangements and traditions has a strong impact on the degree of pressure that evolves out of this policy. A high policy pressure requires a large domestic institutional adjustment. According to Knill this degree of pressure decides about an effective or ineffective policy implementation. The domestic level is expected to react more favourable towards policies that do not require fundamental institutional changes but gradual changes and hence, adapt to the requirements faster which is expected to lead to a more effective implementation. In the case of strong pressure, the implementing and addressed institutions tend to resist and refuse the policies (ibid., 364). Three cases are imaginable (see Table 4): In the case of a high implementation pressure, the EU requirements strongly contradict the national traditions and regulations: an ineffective policy implementation is expected. In the case of low pressure, i.e. the EU policy matches more or less the national policy arrangements, a very effective implementation is expected. In the case of a moderate implementation pressure the national system needs to adjust some arrangements but not its fundamental traditions. Here a rather effective implementation can be expected, however, other factors need to be taken into account: Constellations of actors and institutional opportunity structures need to be considered as well to give a more stable pre-evaluation of the policy implementation (ibid., 366). This approach is very similar to the 'goodness of fit' approach which has been applied to explain the degree of Europeanisation (see **chapter 2.3.2**).

By implication this institutional approach suggests that EU policies should have a rather low policy pressure to ensure an effective implementation and to make sure that the policy is not rejected. At the same time EU policies are produced to lead to changes and find solutions to existing challenges. When policies are solely produced with low pressure and a high compatibility to the existing structures it cannot lead to large changes and solve problems. Therefore a balance has to be struck: Policies with some requirements are likely to be implemented effectively (ibid., 371). A certain misfit needs to exist between the EU policy and the domestic policies in order to cause domestic change (Bulmer and Radaelli 2004, 9). This, however, does not automatically imply pressure from EU level. Solely in the case of hierarchical governance (see **chapter 2.3.2**) the EU member states have to follow EU law and cannot escape from EU polity. If the EU policy totally contradicts the existing national policies and polities, however, the probability of implementation of EU law on domestic level is said to be rather low - especially when it is considered to be impossible to adapt (Börzel and Risse 2000, 5; Bulmer and Radaelli 2004, 8ff.). The EU progress of problem-solving and in the generation of change by policy-making has to be made patiently by little and little.

	thon encenveness evaluation		
1 <sup>st</sup> step Institutional compa	atibility (between EU and dome	stic level) $\rightarrow$ degree of policy pressure	
a) high compatibility	low policy pressure	$\rightarrow$ high effectiveness of implementation	
b) low compatibility	high policy pressure	$\rightarrow$ low effectiveness of implementation	
c) moderate compatibility	Moderate policy pressure	$\rightarrow$ go to 2 <sup>nd</sup> step	
2 <sup>nd</sup> step Policy context (do	mestic level): constellation of a	ctors & opportunity structures	
a) favourable		$\rightarrow$ effective implementation	
b) not favourable		$\rightarrow$ ineffective implementation	

Table 4: Two-step implementation effectivene	ss evaluation
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Source: Author, Kaiserslautern, 2017, based on Knill 2006, 368

The EU practices already policies in this style: as general policy objectives as possible, minimal adaption costs and indirect implementation pressure through transparent comparisons of the member states' application: This shall lead to a better achievement of the policy objectives. An example is the 'Open Method of Coordination'. This form of governance solely sets the general framework of the policy and leaves it to the member states how they implement it. No sanctions are envisaged. Furthermore, the EU offers platforms for the exchange and cooperation among the different domestic policy-makers to develop the policies to generate learning-processes. The only requirement is the dissemination of the respective practices. As incentive it is possible to get a peer-review of the policy and its practice. There are no other control processes or obligations. This method allows the member states creativity to reach a general objective. This method has been applied in several policy fields, especially in cases when the domestic policies do not need to be harmonized. However, it cannot be used when the member states' policies shall be harmonized or a certain concrete goal needs to be achieved. In such cases a hierarchical legally binding policy is needed. In general, EU policies are developed in long-lasting negotiation processes and based on consensus which often contributes to broad objectives and contents to involve the aims of all member states. This also minimises the outcome and effectiveness of implemented policies (ibid., 371).

The 'goodness of fit' approach can evaluate policy implementation and Europeanisation best when a clearly defined EU policy is implemented with pressure at domestic level (i.e. in hierarchical and positive integration processes (see **chapter 2.5.2**) (Bulmer and Radaelli 2004, 9). However, it needs to

2 Theoretical framework: the rationale and influence of European Union policy making

be taken into account that the evaluation of misfit by the member states is very subjective because many EU policies are not very concrete and might be interpreted differently (Bache 2008, 16).

# 2.5.3 Measuring policy implementation

In the evaluation of a policy implementation usually two categories are to be taken into account:

- the *formal* implementation, e.g. the communication of the steps of implementation as well as the complete and correct adaption of a policy into the national legislation in time and
- the *practical* implementation, e.g. the impact of the amended national legislation on the regulation practice. It is to be found out if all requested features decided at EU level are fulfilled and applied in practice (Knill 2006, 355).

However, the EU mostly focuses in its evaluation on the formal implementation because practical implementation is not easy to evaluate and it does not have the resources to do so. This is criticized by several scholars because they see more severe problems in the practical implementation (Jordan 1999, 77; Knill 2006, 357). Challenges in the practical implementation can only be detected with enough resources and measures to monitor the compliance with EU legislation (Knill 2006, 358).

Based on empirical finding of other scholars, Knill pointed out some trends of policy implementation:

- Large differences in the effectiveness of policy implementation between different policy sectors and different policies (Cohesion and Transport Policy are not among those that have been implemented less effectively).
- The geographic location of a member states does not relate to a certain effectiveness of implementation. The deficits are distributed in a unsystematic way on the member states
- There is no universal relation between the type of policy instrument (flexible vs. hierarchically predefined) and the implementation effectiveness of a policy

Besides these trends, however, research in policy implementation shows that it is hardly possible to establish a general model or theory for policy implementation. Although several case studies have been conducted no universal findings on the implementation of policies could be derived. The context strongly influences the outcome so that each case can come to a different result (ibid., 363).

When evaluating the 'effective' implementation of a policy it has to be differentiated between policy *impact* and policy *outcome*. In the evaluation of the policy impact, it is analysed if the formal and practical implementation fulfil the objectives defined in the policy. This, however, does not assure that the initial main aim of a policy is achieved. It might be the case that from the beginning the policy itself was not formulated target-aimed and the measures foreseen have not contributed to the success. In contrast, when the policy outcomes are evaluated, the success of a policy is evaluated based on the completion of the initial aim that was defined in the agenda-setting phase linked to the problem perceived at the start of the policy process (ibid., 360).

The policy *impact* can be evaluated in two dimensions: Top-down and bottom-up. A *top-down* impact evaluation compares the planned impact and the impact in practice. This analysis is often based on a simplified model of policy-making and does not expect influential changes in the implementation process by the different actors involved. Out of the comparison recommendations for the amendment of the policy itself can be derived. The *bottom-up* process mainly focuses on the process. It is analysed how the policy-aims and -instruments change during the process of implementation according to interests, needs and new awarenesses of problems of the actors involved on several levels e.g. based on research results. In this case the impact is evaluated based on the preferences of the involved actors, i.e. the process is successful when the policy addresses a common problem in a decentralised process that led to common learning effects and bargaining processes (ibid., 361).

Most EU studies analyse the impact of policies based on a comparison of the policies' aims. The process and the outcomes are analysed less often analysed and therefore not taken into account when evaluating the effectiveness of policy implementation (ibid., 362).

## 2.5.4 Policy implementation - importance for this dissertation

Policy implementation is a very relevant topic for this dissertation as the method of a policy implementation analysis will be applied in the analytical part of this dissertation to evaluate the influence of two EU policies on the member states.

The policy transfer concept explains how policies can be adopted from one context to another. Such processes also take place in the European Union. The EU policies developed in different governance modes (see **chapter 2.4.2**) are to be transferred to the individual domestic contexts of the member states. Two different types of policy transfer exist: formal institutional transfer and voluntary transfer. These types contain a different mix of stakeholders. The transfer process is of high relevance for the implementation impact of a policy

EU policy transfer in the case of this dissertation can be both, institutional or ideational – developed through institutional transfer of EU policies in the domestic policies or through ideational transfer and policy learning caused by cross-border cooperation.

This dissertation is based on an ex-post analysis of policy implementation. Thus, not the policy implementation process is to be analysed. Instead the impact of the policy is to be explored: It is analysed how far the domestic policies are in line with the EU policies.

However, as the implementation of EU policies can take place to different degrees and several factors which either concern the **policies' characteristics** or the **initial situation** in which the policy is to be applied influence the implementation, these are to be taken into account in order to explain potential differing policy influences on the domestic levels.

The initial situation is characterized by several factors which differ in the 28 member states of the EU although common values and certain characteristics are broadly shared: the political structure of the country, including culture and social models; the characteristics of the implementation authorities, the policy expectations and motivations to implement it, the timing of the implementation need, the network of actors involved, policy belief systems and the 'goodness of fit' of the EU policy in the domestic context. The 'goodness of fit'-analytical approach is a very relevant approach for Europeanisation, policy transfer and policy implementation as it acknowledges the high relevance of domestic institutions.

It has to be differentiated between the formal implementation of policies and the practical implementation. The formal implementation is easier to measure as policy documents can be easily compared. In this dissertation, it is attempted to do both. The practical implementation shall be evaluated based on interviews and project data base descriptions.

# 2.6 Derivations to the research framework

EU policies as well as the creation of transnational cooperations with their special governance structures and spatial boundaries are a product of European integration. In this dissertation the top-down Europeanisation respectively the policy implementation of the Trans-European Transport Networks (TEN-T) and European Territorial Cooperation (ETC) is explored in order to evaluate the two EU policies' influence on cross-border transport.

In a first step the field of investigation – **cross-border transport** - is approached by mutually associating the two fields of investigation - transnational cooperation and European transport - in **chapter 3**.

In a second step the **character** of the two EU policies of interests - TEN-T and ETC - is analysed in **chapter 4** as a preparation for the following *top-down policy impact analysis*.

The **interim conclusion** at the end of the first part of the dissertation picks up the theoretical framework and the contents of the following chapters and develops hypotheses on the influence of the two EU policies on cross-border transport.

As the implementation of policies is strongly case dependent and shaped by national conditions the **evaluation of the EU policies' influence** will be based on the examination of nine preliminary (**chapter 5**) and two in depth case studies in **chapter 6**. The implementation of the policies in practice will be investigated in the two in depth case studies. Here the different initial situations of the two cross-border regions will be taken into account. Then the EU policy aims shall be compared with the policy impact in formal and practical implementation: Were the policies targeted enough to fulfil the goal and how could the goal attainment be improved by amending the policy itself? Hence, policy documents on domestic level as well as the practice in the form of projects and the status quo are to be analysed. Potential differences in the implementation in the two case studies and between the member states involved might be tried to be explained with the different domestic and initial situations of the cases.

**Chapter 7** develops conclusions by drawing relations between the findings of the case studies and the theoretic framework. This is followed by recommendations and an outlook for future research in **chapter 8**.

More information on the detailed methodology can be found in **chapter 1**. The next chapter looks at border regions and transport across EU borders.

# 3 Transport in and across border regions within the European Union

Transport is a highly important topic as it underlies rapid change. Transport accessibility is of high importance for the economy. Because of economic reasons, but also environmental and social reasons, transport is constantly on the political agenda: transport has strong environmental effects that shall be minimized and its social effects cannot be neglected. Transport infrastructure and services are not spread evenly on the territory which disadvantages the development of remote rural areas. Transport policies influence space and the latter's development. Therefore it is very relevant for spatial planning. Transport is not solely a relevant issue within countries but also across borders. The European Union, for instance, aims at establishing a Single European Market and the member states shall benefit from each other. Therefore it is important to foster cross-border links between the domestic transport networks. However, because of a long period of closed borders and strict demarcation of state territories, the transport infrastructure across borders is often hampered and needs special attention.

The aim of this chapter is to introduce the topic of cross-border transport within the EU. This includes firstly an overview about borders, cross-border regions and cross-border cooperation in the EU. Secondly, the importance of cross-border transport within the EU is illustrated, followed by an overview on existing cross-border transport challenges. The third part of this chapter gives an overview about the current status of the European transport system based on statistical data and evaluations in EU policy documents.

## 3.1 European cross-border regions and cross-border cooperation

This section describes the development and importance of European borders and cross-border cooperations which led to the arising of a high variety of cross-border regions.

First of all, a demarcation of the terms **frontier**, **border** and **boundary** is to be drawn as the three terms are often used synonymously: the term 'frontier' describes the legal and political demarcation of a country. The term 'border' has a similar meaning and is used in American English especially to physically demarcate different national territories. 'Boundaries' can be used to describe territorial as well as social demarcations between different social groups. Different boundaries can exist within one country or across countries. Boundaries are defined to benefit from the internal. It shall be made use of the stakeholders and resources within boundaries to produce an added value that prevents an escape (Bartolini 2009, 12).<sup>22</sup>

In this dissertation borders are always considered to be national administrative borders. Cross-border regions consist of a union of (sub-) national spaces - usually a number of municipal or regional boundaries - from at least two different nations. The following analysis treats only the EU internal borders.

# **3.1.1** European borders and cross-border regions

The **national borders** within Europe changed frequently over the time. Within the last 100 years, all European countries shifted their borders except of ten countries (Wallace 1992, 14). Thereby certain spaces changed their national affiliation several times. An example is the Slovenian region Primorska that partly belonged to Bavarian, Italian, Austro-Hungarian and Yugoslavian rule in the last centuries (Slovenian Tourist Board 2016). Further examples are the French regions Lorraine or Alsace that changed their national affiliation several times between French and German administrations. Recently they were merged together with the region Champagne-Ardenne into the French region 'Grand-Est' due

<sup>&</sup>lt;sup>22</sup> More information on the development of soft spaces and different types of boundaries can also be found in chapter **2.1.3**.

to national structural reforms (Région Alsace Champagne-Ardenne Lorraine 2016a). The French example shows, that both the national borders and the internal subnational borders are subject to frequent change. Furthermore, the accession of new member states to the EU - e.g. Croatia in 2013 – makes the EU territory grow and opens new internal EU borders, while at the same time defining new external borders.

Such **state border movements** do not only influence the territories but also the way the territories are governed. The countries have different legislations, governments, languages etc. (Ricq 2006, 32). These characteristics influence their inhabitants' attitude towards the border. Some regions have always been situated at a border and might therefore feel a stronger demarcation to the other side of the border. Regions that changed their origin several times might feel stronger historic bonds to the both sides of the border (ibid., 32).

The European internal borders have different functions. First, state borders can be perceived as strict barriers because the border demarcates the applicable national laws (Ratti 1993, 61). However, in recent times the EU established agreements which enable the free movement of goods and people across most of the internal EU borders. Therefore the borders are currently classified as indirect barriers or filters. The latter function takes into account the different domestic laws, economies, cultures, social systems and politics, which distinguish the member states from each other although having common EU Treaties. However, having frequent exchanges and cooperation across the state borders can lead to an approximation of the involved domestic systems (Deppisch 2007, 45; O'Dowd 2001, 70; Ratti 1993, 61). Second, because of the open character of the European inner borders, in this case the borders can be seen as **contact opportunities** (Ratti 1993, 61) or even **bridges** which foster cross-border mobility and exchange. In this context the EU fosters cross-border regions and cooperation across national borders (Deppisch 2007, 44; O'Dowd 2001, 71). Third, borders can be used to establish and demarcate national identities (Miggelbrink 2014, 142; O'Dowd 2001, 74). Living in a certain state offers development opportunities that are limited on the state's resources. However, the EU fosters cultural exchange and mobility across borders with the aim to increase the benefit of resources which are available in other EU member states (O'Dowd 2001, 74). Fourth, state borders can be considered as **resources** - both in the sense of a bridge but also as a barrier. Depending on the interest different actors try to benefit from them. Because indirect barriers still exist based on different governance styles and developments, the national territories show different characteristics. Therefore it is of interest to cross the borders and benefit for instance from lower prices of goods while earning higher wages on the other side of the border (ibid., 73). Sendhardt considers borders to be fuzzy because of their territorial, functional and symbolic dimensions which do not necessarily demarcate the same boundaries (Sendhardt 2013, 28).

During Cold War, the European national borders were highly demarcated and the states had a high control over their national economy, culture, politics, residents and the cross-border traffic (O'Dowd 2001, 69). This increased the national consciousness of the citizens and importance to be part of one respective country (Haselsberger 2014, 508). However, there was a strong belief that the borders within Europe would be fully abolished after the end of the cold war (1989/90) but this did not turn out to be the case (Falke 2013, 255).

To encounter the remaining inner European barriers, the **EU Cohesion Policy** aims at **minimizing the regional disparities** and peripheral spaces among its member states: European integration, economic, social and territorial cohesion are to be reached. The member states shall grow together and further decrease the separating effects of the national borders (more see **chapter 4.2**). The abolishment of the inner-European borders was supported additionally by the introduction of the **Single European Market** (Ruidisch 2013, 98) and the **Schengen Agreement**: Cohesion is to be reached particularly by higher cross-border mobility (Spierings and Velde 2013, 4). However, at the beginning the opening of the inner European borders was feared. The member states and European citizens were afraid of a grown degree of migrants and crime. Therefore the controls at the external borders were increased. This was partially perceived as an enforcement of inner-European borders towards non-Schengen EU member states. The full implementation of the Schengen Agreement, i.e. the abolishment of border controls, took ten years and was criticized by the reluctance or incapacity of the member states to further integrate (Siebold 2013, 132). In addition, the Cohesion Policy shall foster the **competitiveness** of the EU. All these EU discourses and agreements have – depending on the policy area - developed coercive mechanisms and offered financial incentives to increase European integration and minimize border effects within the EU (Deas and Lord 2006, 1848).

Despite the efforts of the European Union to achieve cohesion, it was found out that a certain level of **disparity** is needed to strengthen **cross-border mobility**: there need to be certain offers that do not exist in one country that pull people at the other side of the border. At the same time the differences should not be too large because this might as well prevent the citizens to cross the border (Spierings and Velde 2013, 1). According to Spierings and van der Velde the EU policy should support and preserve the inner diversity and unique features of border regions in addition to the diminishment of the demarcation effects of borders. This is said to contribute to a higher cross-border mobility and integration (ibid., 4).

#### **Opportunities and challenges of 'open' borders**

The deconstruction and loss of importance of the national borders has led to a reduced demarcation of the member states and changed the situation of former border areas. It opened up new opportunities for the latter (Ruidisch 2013, 103): Border regions were put in a more **central position**. Often the opening of a border led to an agglomeration of functions at the border. Such concentrations anon activated cross-border commuter flows, an increased transport of goods, and thus, growing mutual **interdependences** (Sohn 2014, 1699) as the border inhabitants made use of the **benefits** and opportunities based on the regions' disparities on either side of the border (Martínez 1994).

The disparities between border regions make it attractive to cross the border. However, these different points of departure of border regions, especially in the economic sense, can also lead to structural challenges when the borders are opened to the disadvantage of the border regions. The flows of people can further aggravate the **socio-economic imbalances** (Ricq 2006, 142; Spierings and Velde 2013, 1). Investors might prefer the economically cheaper border region which can lead to mutual competition (Leibenath, Korcelli-Olejniczak, and Knippschild 2008, 29). The market competition between regions can minimize the regional support of cooperation (Aykaç 1994, 26).

Furthermore, O'Dowd, argues that the ongoing importance of state borders should not be neglected. National borders have been very resilient and complex compared to other (administrative) borders. They are path dependent and related to the country's history (O'Dowd 2010, 1031). In this context border regions still **struggle** in their **cross-border daily life** in certain areas because of contradicting domestic regulations, policies, cultures and practices (Ricq 2006, 34; Nienaber 2015, 312; Wille 2015b). Examples are different taxation systems, income standards, prices and social insurance systems which complicate the routine of cross-border workers. Often qualifications attained in one country are not accepted in the other. Transport networks and services are often not sufficiently connected and coordinated across the border and therefore most cross-border commuters take their own car which overloads the existing infrastructure. Also other infrastructures (e.g. for health care) are usually constructed at both sides of a border instead of sharing the services because of legal constraints. Cultural borders have often been persistent although functional cooperation had taken place. Also linguistic barriers make the information flows more difficult. Minorities are often treated very differently of two

sides of a border region (Ricq 2006, 34). These challenges in the daily life of cross-border regions are also a barrier for cross-border cooperation (see in **chapter 3.1.2**).

Cross-border regions are often divided by **natural borders** e.g. mountains, rivers, the sea etc. These topographical demarcations have often been used to define the state borders. Rietveld argues that border regions without these natural barriers are much more advantaged than regions which border the sea because it is easier to establish communication and contact with a bordering neighbour (Rietveld 1993, 47). Natural barriers can also be a reason to start a cross-border cooperation in order to commonly develop measures to overcome these barriers or e.g. to improve the environmental quality of a common river (see **chapter 3.1.2**). Especially when looking at cross-border transport the natural borders are very relevant (more see **chapter 3.2.2**). They need to be taken into account when exploring cross-border regions in the analytical part of this dissertation (see **chapters 5 and 6**).

#### Demarcation of cross-border regions

The opening of the inner-European borders facilitated the development of the so-called 'border lands' or cross-border regions: **Flexible soft spaces** (see **chapter 2.1.3**) that combine fragmented administrative and multi-level spaces from different member states (Faludi 2009, 36; Deppisch 2007, 48). Thereby they cross **national administrative borders** and provide the ground for cooperation in a **functionally inter-linked area** which involves actors from both sides of the border (Allmendinger et al. 2015, 18). Exchange processes might lead to adaptations and innovations in the own country (Sohn 2014, 1699; O'Dowd 2002, 111). Cross-border regions often aim at minimizing the challenges that had existed because of a closed border and are created despite different domestic social, economic and cultural structures (Sohn 2014, 1699; O'Dowd 2002, 111). As they often evolve to take charge of the inefficacies of the central states' governing in fields of shared interest, Perkmann categorizes the European cross-border regions to be '**policy-driven**' instead of 'market-driven' (Perkmann 2007b, 863). To be successful and become a '**policy-entrepreneur**' cross-border regions are said to need to become autonomous and develop an independent standing with own membership fees or income, independent of EU funds (Durand and Nelles 2014, 574).

Cross-border regions are said to contribute to European integration by challenging the sovereignty of the states' territory and gaining representative independence from the national territories (O'Dowd 2002, 111; Sohn 2014, 1699). Although cross-border regions are said to be flexible and their boundaries vague (O'Dowd 2002, 111), there have been attempts to **demarcate** these new spaces to make them more tangible. However, no universally valid detailed definition of cross-border regions exists. They can be demarcated by a special size, administrative boundaries, functional linkages, individual perceptions or prevalent identities and other characteristics. This variety of definitions resulted in a high number of diverse boundaries in different sizes which often overlap each other.

Often the shape of cross-border regions is **artificially constructed** (top-down) and broader than the real functional linkages. This has an impact on the perceptibility of the border area. Citizens of cross-border regions usually construct their own cross-border border region shapes in their minds, based on their **personal perception** in their every day life (bottom-up) (Wille 2015c, Xff.): depending on the issue, the perceived permeability of the same border can differ. Additionally, despite an 'open' border, barriers can exist that prevent the cross-border region to be perceived as a common contiguous territory (ibid., Xff.).

As has been shown, the **boundaries** of cross-border regions can be constructed in different manners. These will be presented in the following.

In the 'Handbook on transfrontier cooperation" published by the Council of Europe, a cross-border region is defined as a territorial boundary which consists of a **network of groups of people** that is **interrupted by a frontier**. The frontier is defined as a "physical limit" (Ricq 2006, 18) which

demarcates national administrative boundaries (ibid., 24). At least two territorial units are linked across a state border (Anderson and O'Dowd 1999, 595).

For Perkmann, the basic precondition for a cross-border region is a **spatial proximity** of the cooperating border regions, only separated by a state border. He uses three indicators to differentiate between different types of cross-border regions: (1) **geographical extent**, (2) **intensity of cooperation** (its capacity and autonomy) and (3) **actor types** (from different administrative levels). Cross-border regions can be very small and involve only two local territorial units. At the same time several regions can be involved in one cross-border region (Perkmann 2003, 157). Other differences concern the porosity of the border, the length and basis of cooperation and the cross-border region's success (O'Dowd 2002, 119).

An earlier definition of the Council of Europe (1972) sees **functional linkages** (see **chapter 3.1.2**) between the bordering regions as an important feature (Perkmann 2003, 156) to demarcate cross-border regions. This is acknowledged by Anderson and O'Dowd (1999): the linkage is based on mutual interest in making use of the benefits offered at the other side of the border (ibid., 595). Also according to Miggelbrink, cross-border regions contain a state border which is sovereignly maintained by two states. They are developed due to **practical and functional daily-life relations** which have created new boundaries of cooperation that try to occupy that border (Miggelbrink 2014, 144). Speer stated that cross-border regions could even be constructed without the official integration of administrative territorial boundaries but instead through the cooperation of **functional actors** like universities and chambers of commerce that cooperate across-borders (Speer 2009, 61). Also O'Dowd argues that cross-border regions can be demarcated best based on their cross-border inter-linkages and functional exchanges whereas their spatial demarcation remained flexible. The **rules for cross-border activities** developed in complex interaction of politicians and inhabitants, can also help to demarcate cross-border regions (O'Dowd 2002, 112).

When comparing the character of cross-border regions to autonomous regions, like Catalonia, the latter have both a higher regional identity and more competences. Cross-border regions can be demarcated solely by **soft boundaries**, although being institutionalised in some cases and sharing common cultures (Aykaç 1994, 7).

According to Haselsberger cross-border regions should be established to open up the existing political and administrative boundaries to make the state borders more permeable and allow the development of soft spaces in **various forms** that exist in parallel to hard national borders (Haselsberger 2014, 523). Cross-border regions can overlap each other. They even might compete. Deas and Lord criticize several of them to be immature and randomly defined because of their **political construction** which often ignores **functional linkages** (Deas and Lord 2006, 1851). This is acknowledged by Aykaç. **Historic origins** are considered to be of added value for a fruitful cross-border cooperation (ibid., 7).

In order to categorize cross-border regions in a **territorial** concern, they can be grouped in three main categories. This categorization is also used by the EU in the **European Territorial Cooperation (ETC)** (see **chapter 4.2**). It is based on the cross-border regions' territorial size and composition of members:

- interregional cooperations or cross-border networks (INTERREG C) are not territorially contiguous. They are based on common interests or challenges (Bramanti and Rosso 2013, 82). The exchange is based on mutual learning and the exchange of experiences rather than the establishment of a common transport project. Because of these characteristics their structures are not investigated further in this dissertation. Instead the focus is laid on contiguous cross-border cooperations.
- **transnational regions** or **wide areas of cooperations** (INTERREG B) are spatially contiguous but large areas within which entities can decide to cooperate although not directly bordering each other. Often these cooperation spaces are established based on exchanges in smaller border areas which were enlarged because

of geographical or other commonalities (e.g. common river, sea basin, mountains, transport corridor etc.). A special form of these cooperations are **macro-regions** (see **chapters 2. 1.3** and **3.1.2**.). The latter can be perceived as dense cooperation networks which usually involve parts of several member states and thus, comprise very large transnational cooperation areas. Macro-regions can comprise several smaller cross-border regional boundaries such as Euroregions (Nagler 2013, 33)

small cross-border regions (INTERREG A) - on which it is focused in this dissertation - describe smaller spaces which consist of contiguous border regions. According to the CONPASS project, in daily commuting – which is very relevant in the elaboration of cross-border transport within a cross-border region – the maximum distance lay in 2002 between 50 and 70 kilometres (CONPASS Consortium 2002a, 12). Approximately 15 years later, this distance might have been enlarged to a certain degree because of faster connections and technologies.

In this EU categorization, the cross-border regions are composed of a number of administrative boundaries specified in the *Nomenclature des unités territoriales statistiques* (NUTS) level. Small crossborder regions (INTERREG A) consist of NUTS 3 regions. In the German NUTS 3 regions are the boundaries of the *Kreise* and in France of the *départements* whereas small countries like Luxembourg do not have these sub-levels but are involved with their whole national territory in a cross-border region (EUROSTAT n.y.c). Regions at internal maritime borders should not be located farther than 150 km away from the corresponding maritime border. Outermost regions are excluded from this rule (European Parliament and Council of the European Union 2013a, 3). Despite the attempt of a spatial assimilation and categorization through the NUTS, INTERREG A regions have different spatial scopes. **Image 3** shows the large territorial differences in the two cross-border region Brandenburg-Lubuskie including parts of Germany and Poland. The different scopes influence the internal organisation and perception of the regions and have to be taken into account in the further analysis of this dissertation.

The **transnational cooperation** areas (INTERREG B) consist of NUTS 2 regions whereas the **interregional cooperation** (INTERREG C) support is not bound to certain territorial requirements (ibid., art.3)

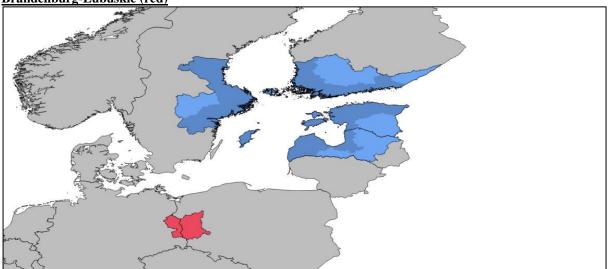


Image 3: Different territorial sizes of INTERREG A cross-border regions: Central Baltic (blue) and Brandenburg-Lubuskie (red)

Source: Author, Kaiserslautern, 2017, based on GISCO - EUROSTAT 2015; Interreg Brandenburg-Polen 2014; Interreg Central Baltic 2014.

The common denominator for the demarcation of cross-border regions is the existence of a state border which is crossed. In the case of this dissertation, the territorial and administrative demarcation of the ETC border regions, based on NUTS 3 administrative boundaries of the member states, will be applied, because the influence of the ETC Policy will be evaluated in the analysis. It will be focused on these small cross-border regions as these usually encompass areas relevant in terms of cross-border travel

distances as indicated above. Furthermore, the INTERREG A regions administrate the ETC funds and develop common strategies for the region's future. Thus, it will be easier to compare the structures in different cases. However, the smaller cross-border regions might be overlapped by the larger above described spaces. Therefore it is important to take into account the influence of transnational and macro-regions as well. Additionally, the initiatives of smaller non-EU funded cross-border institutions will be considered in the analytical part of this dissertation.

# 3.1.2 European cross-border cooperation

*"Transfrontier co-operation is one of the irreversible features of the European construction process [...][it] has gradually become a part of European construction" (Ricq 2006, 11)* 

European cross-border cooperation plays an essential part in the European integration process. Often cross-border regions are described as 'laboratories of European integration' (Commission of the European Communities 2009b, 14). The exchange process, fostered through cross-border cooperation is envisaged to contribute to European (territorial) cohesion (Knippschild 2008, foreword; Ruidisch 2013, 102). Gu considers European cross-border cooperation as an important element in the production of benefits for Europe (Gu 2002, 7).

**Cooperation** is mostly developed voluntarily and aims at achieving a common goal which benefits all partners. It is based on negotiations and the concept of consensus. All actors have equal rights and an equal responsibility for the output of their cooperation (Zürker 2004, 19; Speer 2009, 73). Without any expectable benefits for all partners, but risks or economic competition the voluntary cooperation would probably not come about (Speer 2009, 74).

The term '**territorial cooperation**' puts cooperation in relation to territory. All the before named characteristics of cooperation do also apply in this special case. These co-operations usually do not aim at establishing a new administrative level. However, their members often get into difficulties because of before mentioned different legislative systems connected to the involved administrative boundaries. Within the cooperation the possibility is given to promote the cooperation entities' interests, activities and a common strategy beyond their territorial borders to improve the cooperation's external perception (Coen 2010, 95).

In scientific literature the term 'cross-border cooperation' is often used synonymously with territorial cooperation. In this dissertation, however, the term 'cross-border cooperation' is used exclusively to describe the cooperation between spatially adjacent areas from bordering member states according to the current INTERREG differentiation of strands, i.e. INTERREG A. All other kinds of territorial cooperation are mentioned based on their specific name (transnational cooperation – large cooperation areas; interregional cooperation – cooperating regions that do not border each other).

Cross-border cooperation has also been relevant within single member states, i.e. the cooperation between different administrative sub-boundaries of countries, like in Germany, where territorial plans of bordering regions shall be coordinated by cross-border planning associations to minimize contradictory developments and contribute to a sustainable and comprehensive development of the territory (Kimmel 1996, 49). Such internal cross-border cooperations are even laid down in the German constitution (Federal Republic of Germany, art.24 para.1a). Although such cross-border cooperations are not to be analysed within this dissertation, it is important to keep in mind that even regions within one member state with a national basic legal framework and planning culture, planning needs to be coordinated because of contradicting planning strategies. When looking at cooperation between regions

of different national origin there are even more factors which might contradict each other and should be coordinated to ensure a sustainable development of the two neighbouring border regions.

Similar to the reasons for the establishment of cross-border regions, cross-border cooperation across European national borders shall minimize the separating effects of the borders and make them more permeable (Malchus 1996, 79). Cross-border cooperation is said to revive the regional cross-border exchange and therewith firmly establish the existence of multi-national border regions (Schönweitz 2013, 127).

## Historic development of cross-border cooperation

European cross-border cooperation across national borders has a long tradition. Some of the earliest forms were established in the ancient world and at the latest in the Middle-Ages when the Hanseatic League established a trading association between cities in Northern Europe (Görmar 2002, 51).

In the 19<sup>th</sup> century, agreements were established between European countries to jointly decide about the pathway of the borders, especially in the case of border rivers and lakes (Aykaç 1994, 8). First territorial co-operations, according to the today's understanding, were established after the Second World War, in the 1950s (Deppisch 2007, 50). These cooperations' purpose was, among others, the risk minimisation for another war (Görmar 2002, 52). Furthermore, the cooperations mainly focused on environmental issues and established 'transfrontier commissions'. An example is the cross-border cooperation between Germany and the Netherlands, known under the later name EUREGIO. The EUREGIO's success led to the development of a growing number of cross-border institutions – the so-called 'Euregios' or 'Euroregions'. Additionally, working communities were established (Aykaç 1994, 8).

Besides that, umbrella organizations aiming at an exchange of information and the representation of border regions were founded, for instance the Council of European Municipalities and Regions (CEMR), the Conference of Peripheral Maritime Regions (CPMR) and the Association of European Border Regions (AEBR) (Görmar 2002, 52).

Also the exchange in issues of spatial planning was started across borders within North West Europe (1962), in the BENELUX countries (1986) and in the Baltic Sea Region (1994) (Dühr, Colomb, and Nadin 2010, 292). In this context regional planning committees as well as neighbourhood commissions were established. The latter focussed on broader topics which concerned the border area (Aykaç 1994, 8).

The European institutions like the European Council and the organs of the EU have promoted crossborder cooperation – content wise and financially - since their existence (Malchus 1996, 79). An example is the Council of Europe which decided in 1974 to foster cross-border cooperation among local and regional authorities within Europe. Because cross-border cooperations had faced challenges based on the different national legislations involved in the exchange process, more flexible regulations and a simplified process for cooperation were to be introduced. In 1980 a special inter-state agreement was developed which offered the possibility to establish a legal and organisational framework for crossborder co-operations on a public and private law basis: The 'Madrid Outline Convention'. The signing countries of this convention committed themselves to support attempts of European territorial cooperating countries were required (Halmes 2002, 19; Gabbe and Malchus 2008, 42; Gaissert 2002, 35). In the 90s first legal bases for co-operations across borders were established based on that convention (Halmes 2002, 19).

The grown awareness of transboundary influences (e.g. climate change), which do not stop at national borders, strengthened the importance of cross-border cooperation and coordination of spatial planning strategies across borders. The study 'Europe 2000' of the European Commission (EC) additionally

promoted the share of information and experience in the field of spatial planning (European Commission 1991, 3). Products of European spatial planning exchange are the European Spatial Development Perspective (ESDP) and its successor strategy Territorial Agenda (TA) (Dühr, Colomb, and Nadin 2010, 293). The ESDP involved the member states' ministers responsible for Spatial Planning and became a strategy to reach a "balanced and sustainable development" (Informal Council of Ministers responsible for Spatial Planning 1999, preface) of the EU territory. It contains common goals and concepts for the EU development (Ahlke 2008, preface).

## The impetus of the INTERREG initiative

To further push cross-border cooperation within the EU and contribute to a sustainable European development, the **INTERREG** initiative was started in 1990 being part of the EU Regional Policy. The initiative was expected to contribute to the establishment of the Single Market and the minimization of the border effects (Schäfer 2003, 116). Additionally, cross-border cooperation was expected to support European cohesion, the regions' economic development and the implementation of sectoral EU policies (Millan 1994, 21). Financial incentives were offered in fields of sectoral interest - **such as transport** - to fulfil predefined aims (Dühr, Colomb, and Nadin 2010, 233).

In the first INTERREG-period (1990-1993) the European Commission supported solely cross-border cooperations in the development of spatial strategies (Gabbe and Malchus 2008, 40). In the succeeding funding periods, the funds were offered to a broader definition of territorial cooperation: transnational and interregional cooperation. The European initiative became popular very fast due to its financial incentives and the number of cross-border cooperations has steadily grown (European Commission 2002, 8; Gabbe and Malchus 2008, 40; Perkmann 2003, 167). To better manage the European funds between the involved border regions, often cross-border organizations like the 'Euroregions' were established which established long-term goals of cooperation (Schäfer 2003, 119; Gabbe and Malchus 2008, 40). The foundation of these new subnational forms of governance can be seen as first developments in the direction of European **multi-level governance** (Dühr, Colomb, and Nadin 2010, 234) (see **chapter 2.1.2**). The regional and local administrative levels are said to use such cooperations to minimize the influence of their national governments (Brenner 2004, 288).

INTERREG II (1994-1999) introduced a member state-wide cooperation on European spatial development (Schäfer 2003, 124; Dühr, Colomb, and Nadin 2010, 235). Nine big cooperation areas, comprising several member states and some non-EU members, were defined in political acclamation (Ritter and Fürst 2009, 145).

INTERREG III (2000-2006) was to implement the ESDP and aimed at minimizing the 'border-effect' (European Commission 2002, 7), foster the integrated development of border regions and the more harmonious European Spatial Planning (ibid., 7): economic and social cohesion in the EU was to be reinforced (Schäfer 2003, 93). Additionally, special attention was paid to the external borders of the EU before the Eastern enlargement (European Commission 2002, 46). Besides that, interregional cooperation, meaning cooperation between regions which do not border each other, became feasible (European Commission 2000, 1). However, cross-border cooperation stayed the most supported element (European Commission 2002, 8).

INTERREG IV (2007-2013) became an own political objective of the EU Structural Funds (Ritter and Fürst 2009, 146) and thereby a mainstream programme. Also the financial incentives have been closely related to European economic strategies like the Lisbon and Gothenburg Strategy (Fleischhauer and Ahlke 2009, 2) and in the period of INTERREG V (2014-2020) to the Europe 2020 Strategy (European Parliament and Council of the European Union 2013d, 4). INTERREG IV and V as well as eligibility criteria for cross-border cooperation projects will be explained more in depth in **chapter 4.2**.

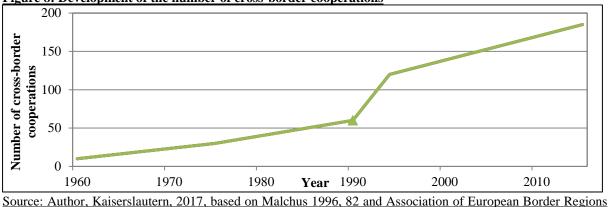


Figure 8: Development of the number of cross-border cooperations

(AEBR) 2016

The number of cross-border regions has grown over the years (see **Figure 8**). In 1960, the first ten European cross-border cooperations had been established, that grew especially since the introduction of the INTERREG initiative in 1990 to 120 in 1994 and even further until today.



Image 4: Status quo of cross-border cooperation in Europe

Source: ibid ...

In April 2016, 185 cooperating cross-border regions and more than 24 EGTCs being members of the AEBR were counted (see **Image 4**). All spaces marked in different colours in **Image 4** are counted as cross-border cooperations. However, they strongly differ in their character and organizational form.

### Forms of cross-border cooperation and organisation

Cross-border cooperations can consist of diverse **actors** and are organised in different ways. As stated in **chapter 2.1.3**, cross-border cooperations usually consist of a horizontal as well as a vertical network (Perkmann 2005, 168). The main functional cooperation takes place in the horizontal network between the involved territorial subnational entities. However, higher administrative levels, like the states and EU institutions, are involved by taking formal decisions, supporting the cooperation financially and are kept informed by the public relations of the cooperation (Speer 2009, 63; Perkmann 2005, 168).

There a different types and organizational forms of cross-border cooperation within the EU starting from intergovernmental commissions, neighbourhood commissions, working communities, Regios (Aykaç 1994, 10), border cities, Euroregions, Euro(pean)districts, Euro-cities (Ricq 2006, 26), cross-border networks and macro-regions<sup>23</sup> (Perkmann 2007b). The European Grouping of Territorial Cooperation (EGTC) is a legal instrument for cross-border cooperation. Cooperations can be both, EGTCs and e.g. Euroregions at the same time. Cooperations tend to change their organizational form over time, with a bigger knowledge and trust of the cooperation partners their character is said to become more committed to implementation (Knippschild 2008, 17). In the following some of the most relevant organizational forms are presented shortly:

- Intergovernmental commissions and neighbourhood commissions are based on an intergovernmental agreement between the involved states. The agreement lays down rules of cooperation. They often focus on spatial planning or broader issues. They usually establish different organs which involve national actors of the involved states. However, these commissions have been criticized because of their inflexibility and anchorage on the national level. Own funds and decision-making at subnational level were missing (Aykaç 1994, 10).
- Working communities are large cooperation spaces (Perkmann 2007b, 862) that consist of subnational, usually regional, entities and are based on a common history. They aim at finding solutions for common challenges, such as the development of transport networks in mountain regions. The cooperation topics are very broad but connected to the respective commonality of the partners. Here also, different organs are established in which elected representatives of the regional entities are involved. The aim is to exchange experiences and adapt them to their personal situation no common binding strategy is developed. Here usually, the cooperation does not have its own funds and not all parts of the regions are concerned with the cooperation so that an identification is lacking (Aykaç 1994, 12).
- Regios have different shapes and can consist of a different number of members from the regional or local level. In addition, non-public actors like chambers of commerce and universities can become members. The cooperation is also based on an agreement between its members and establishes organs as in working communities. However, they are said to establish a higher regional identity based on a strong local participation. The most known Regio is the Euregio between Germany and the Netherlands (ibid., 14).
- Euroregions that typically consist of local authorities (O'Dowd 2002, 119; Leibenath, Korcelli-Olejniczak, and Knippschild 2008, 23) have an organisational unit and concern rather small spaces (ca. 50-100 km width) (Perkmann 2007b, 862). Thus, their cooperation focuses on local needs (Leibenath, Korcelli-Olejniczak, and Knippschild 2008, 23). In many cases, first entities on each side of the border group and establish a domestic association. Second, these associations sign a cross-border cooperation agreement on the establishment of the cross-border region. Their form of organisation and internal procedures are developed over time in legal uncertainty. Resources are usually based on membership fees and further sources ensured solely for a short term. Cooperation and responsibility fields are defined over time dependent on the overall aim. Euroregions are an institutionalised platform of exchange between bi- or multinational authorities but usually do not establish new autonomous authorities. Thus, according to Perkmann they cannot be characterized as new territorial units (Perkmann 2007b, 862). Euroregions often administrate EU funds and function as INTERREG coordination structures (see below) (Leibenath, Korcelli-Olejniczak, and Knippschild 2008, 24).
- Eurodistricts have no legal basis in contrast to European districts which are based on French law. Eurodistricts are a form of cross-border cooperation on a small scale, similar to Euroregions. The Eurodistrict Strasbourg-Ortenau has been a pilot project for a new organizational form. It has decisionmaking power and is based on common visions and aims for the cooperation area (Ricq 2006, 28).

<sup>&</sup>lt;sup>23</sup> Macro-regions are not seen as cross-border region in the definition of this dissertation because they encompass very large areas.

- Macro-regions<sup>24</sup> do not establish own institutions or additional layers (Schymik 2013, 76) but can be perceived as dense cooperation networks (i.e. several cooperations with changing partners). Macro-regions can be used by its members to bundle resources and to benefit from the integration in the large network (Nagler 2013, 33). However, they are not eligible for EU funds (Schymik 2013, 76). In the definition of the European Commission macro-regions shall grounded on commonalities on whose basis a shared strategy is established (European Commission 2009a, 2009a, 5).
- ◆ INTERREG coordination structures were politically constructed to manage and coordinate EU funds and projects. These cross-border regions are dependent on EU funds often the only income source and involve local and regional authorities which steer the development (O'Dowd 2002, 119). These coordination structures can overlap with other forms of cross-border regions such as Euroregions (Perkmann 2007b, 866). INTERREG shall facilitate the contact with neighbouring regions without any legal obligations (Dühr, Colomb, and Nadin 2010, 349). INTERREG has strongly shaped, supported and advanced the territorial cooperation in the EU. However, it does not provide the cooperations with a legal framework (Halmes 2002, 20).

#### Functional variety of cooperation

Cross-border regions can focus their cooperation on a high variety of functional issues (e.g. environmental, social, health, economic and infrastructural aims) depending on their shared challenges or interests (O'Dowd 2001, 71). Often environmental challenges and issues related to the spatial development of the border regions, including transport<sup>25</sup>, are the reasons for cooperation (Ricq 2006, 32) because they have a practical, measurable and very symbolic value. Other fields of cooperation concern other economic strategies in tourism and employment as well as research and development. Social projects focus on the people living in the border region and their culture and education (ibid., 107). Compared to interregional cooperations<sup>26</sup> the topics of small cross-border cooperations have a stronger focus on concrete actions and their implementation (Deppisch 2007, 64). A common solution is to be found, or exchanged experiences shall be applied to resembling challenges (Ricq 2006, 17). By means of the exchange, resources can be used more efficiently (Bramanti and Rosso 2013, 82).

Ricq defines different stages of cooperation that can be reached in cross-border regions (see Figure 9).

	•Information	
$\checkmark$	•Consultation	
$\checkmark$	•Cooperation	
$\checkmark$	•Harmonisation	
$\checkmark$	•Integration	

Source: Author, Kaiserslautern, 2017, based on Ricq 2006, 107. The **exchange of information** is the basic step to get in contact with boundaries on the other side of the border with informal meetings and written exchanges. Thereby the political system and the administrative structures of the neighbouring country can be got to know better. The next stage of cooperation entails the mutual involvement and **consultation** of the neighbouring countries in projects or plans that affect the neighbouring countries. However, the results of the consultation are not legally binding. **Cooperation** – in the definition of Ricq – goes a step further and ensures

the joint implementation of common decisions and agreed actions, to combat common challenges. To reach a complete **harmonisation** of the cooperation members and policies within a cross-border region is not easy. It involves contracts between the regions and has to be grounded on trust and understanding between the entities. The final **integration** stage stands for the complete European integration in all functional areas – an EU wide system based on ultimate cohesion (Ricq 2006, 129) as final goal of cooperation.

<sup>&</sup>lt;sup>24</sup> More information on the spatial demarcation and governance dimension of macro-regions can be found in **chapter 2.1.3**.

<sup>&</sup>lt;sup>25</sup> More information on cross-border transport can be found in **chapter 3.2**.

<sup>&</sup>lt;sup>26</sup> Interregional cooperations consist of territorial units not located close to each other.

3 Transport in and across border regions within the European Union

#### Spatial planning across borders

The exchange of experiences in the field of spatial planning has been practiced for many years and is not a completely new trend (Healey 2010, 1; Deas and Lord 2006, 1851). In 1999, for instance, the 'European Spatial Development Perspective' (ESDP) was jointly developed by the ministers of the EU member states responsible for Spatial Planning (Informal Council of Ministers responsible for Spatial Planning 1999). It can be seen as an attempt of European Spatial Planning and important impetus for spatial planning across borders (Deas and Lord 2006, 1850). The ESDP focused on the territorial dimension of EU policies and argued that the spatial impact of sectoral policies, such as transport, should be taken into account and coordinated through horizontal and vertical cooperation - involving actors from EU, national and subnational level. The horizontal dimension also incorporates cross-border cooperation across the EU. It encourages the member states to expand their exchanges in spatial planning and develop cross-border development plans and strategies as well as to coordinate their plans with the neighbouring countries. Among others, it proposes improving the accessibility of the regions by investing in the linkage of regional transport systems to international and national nodal points. In addition, it promotes the relevance of soft spaces like transport corridors (Informal Council of Ministers responsible for Spatial Planning 1999, 35). Also the Territorial Agenda and the Territorial Agenda 2020 - successor strategies of the ESDP - underline the importance of cross-border coordination of policies to contribute to territorial cohesion (Informal Council of Ministers responsible for Spatial Planning 2011, 7, 2007, 9).

Exchanges in the field of spatial planning are a way to **learn** from others' experiences and to find solutions for the own development. When adopting existing ideas, however, it is necessary to take into account the **planning cultures** and **contexts** in which the planning policies were implemented. The outcomes might be different in another context (Healey 2010, 1; Haselsberger 2016, 98). According to Atkinson and Zimmermann (2018) the process of establishing the ESDP led to learning and thus, Europeanisation processes (see **chapter 2.2**) depending on the will and interest of the member states. However, they evaluate the today's domestic spatial planning systems of the EU member states to be more diverse than in the 1990ies. Besides that, European Spatial Planning is said to have lost its initial impetus (ibid., 3f.).

The EU fosters the exchange of experiences among its member states. Cross-border cooperation in spatial planning was often promoted by the ETC policy in the past (Ricq 2006, 112). According to Pallagst (2007) this promotion of cross-border cooperation of the EU in combination with the development of European spatial and transport planning objectives made it necessary that the **domestic spatial planning systems** opened up their perspectives for **transnational cooperation** (ibid., 3). The development of structures and contacts across borders in the field of spatial planning facilitates the **implementation** of common projects. Additionally, **informal instruments** can be developed which are customized to the specific cross-border situation (Caesar and Pallagst forthcoming).

However, spatial planning across borders is not trivial as domestic **planning competences** are bound to national borders and no EU competences exist in spatial planning. Often the bordering countries are not (sufficiently) taken into account in the domestic spatial plans. Therefore no legally binding decisions can be taken, planning needs to rely on mutual agreements and trust. Additionally, the planning systems of the EU member states are very different in their instruments, laws, division of responsibilities, styles and cultures. The functioning of the planning systems of the neighbouring countries is often not known and understood; therefore it is hard to estimate potential cooperation fields. Furthermore, the planning **education** and interests differ so that cooperating planners from different countries might develop ideas in different and contradicting approaches (ibid.). Furthermore, statistical **data** – a relevant basis for planning and mapping – is often not available for cross-border regions or the national data is not

comparable (Leibenath, Korcelli-Olejniczak, and Knippschild 2008, 28). Further general cooperation challenges that also apply for spatial planning across borders are described in the next section.

A very prominent field of cross-border planning is the **transport development**. The supranational level has a shared competence in EU Transport Policy, however, not in spatial planning. A related policy field to spatial planning in which the supranational level is competent is the Cohesion Policy. Policy documents of these two policy fields will be analysed in **chapter 4**. Peters and Dühr et al see the Trans-European Transport Networks (TEN-T) as a very relevant EU field for spatial planning, because these networks have been first recommended in the spatial planning document ESDP and implemented with high spatial impacts (Peters 2003, 321; Dühr, Colomb, and Nadin 2010, 300). More information on cross-border transport is provided in **chapter 3.2**.

## Challenges in cross-border cooperation

Because cross-border cooperations involve at least two different national and administrative boundaries and borders, the cooperation is sometimes hampered in different dimensions. The challenges sometimes change over time because of different objectives, organisational structures, higher experiences and the further development of cooperations (Knippschild 2008, 17) (see **Image 5**).

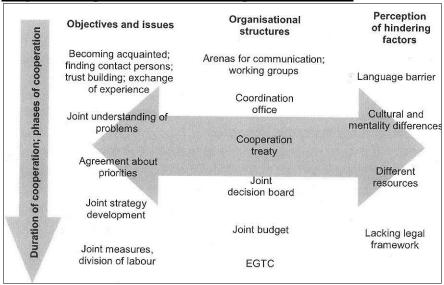


Image 5: Development of cross-border cooperations over time

Cross-border cooperations frequently face **organisational** challenges due to different legal and political systems, financial bases and competences. These differences often hamper the establishment of a cross-border institution and complicate the cooperation in general (Arnaud 2002, 12; Ricq 2006, 18; Aykaç 1994, 20). The latter is also because of contradicting inherent cultures, educations, social systems and economic strategies which need to be 'bridged' in the cooperation (Ricq 2006, 19). Therefore the cooperation members need sufficient patience and will (Bramanti and Rosso 2013, 82). **Political tensions** can prevent border regions from cooperating or at least hamper it, e.g. as it was the case between Ireland and Northern Ireland (Aykaç 1994, 20). Especially in the beginning of cooperation it is hard to establish connections to the other side of the border and the relevant actors (Deppisch 2007, 48). In addition, delays because of **overburdened** administrations keeps some cooperations from being vivid and successful (Arnaud 2002, 12).

Cross-border cooperations are often **dependent** of higher domestic levels. To establish a cross-border cooperation the national levels concerned usually need to be involved: Either in the ratification of interstate agreements (Senatsverwaltung für Wirtschaft 2011, 10) or in the establishment of an EGTC. Additionally, legally binding decisions need the approval of the respective responsible domestic

Source: ibid., 26.

institutions (Damm and Moll 1995, 98). This lack of subnational power aggravates cooperation (Ricq 2006, 142; Medve-Bálint 2013, 155).

Cross-border **communication** can be challenged because of linguistic barriers that exist due to the missing language knowledge of involved actors (Gaissert 2002, 34; Leibenath, Korcelli-Olejniczak, and Knippschild 2008, 29). Especially, technical terms are often not easy to translate and might lead to misunderstandings (Kistenmacher 1996, 96; Leibenath, Korcelli-Olejniczak, and Knippschild 2008, 28). Further challenges can be missing trust in the cooperation partners. Therefore, especially in the beginning, the partners should get to know each other and base their decisions on consensus (Kistenmacher 1996, 96). Often the domestic policies are not **coordinated** sufficiently across borders (Leibenath, Korcelli-Olejniczak, and Knippschild 2008, 30)t.

Different national **identities** can be explained with diverging cultures and history (Gaissert 2002, 34) (path dependence). Sometimes it is very hard to establish a cross-border identity because of stereotypes inherent in the minds of the border populations ('mental border') (Ricq 2006, 145) or historic conflicts (Leibenath, Korcelli-Olejniczak, and Knippschild 2008, 29). Therefore a mutual exchange process is very important in a cooperation to better understand the procedures and domestic **cooperation strategies** from the other side of the border (Kistenmacher 1996, 96). Existing conflicts of **interest** between the involved parties need to be solved to ensure a fruitful cooperation (Haselsberger 2014, 522).

The **cooperation area** should fit to the thematic cooperation focus and organisational structure (Kistenmacher 1996, 96). When cooperation areas are too large, it is hard for the citizens of this area to establish a common identity and to be motivated to actively get involved. The missing perception of a need to cooperate can exist because of a too large cooperation area (Knippschild 2008, 18; Aykaç 1994, 19).

Missing **political will** and support of some parties make cooperation more difficult (Ricq 2006, 142). It is beneficiary when the actors involved are **competent** and can take decisions for their institutions of origin (Knippschild 2008, 120). Often the member states do not sufficiently **support** cross-border cooperations. Some even block cooperation efforts (Mission Opérationnelle Transfrontalière 2008, 5; Aykaç 1994, 21).

A further challenge is the lack of **resources**, often in terms of financing but also in available staff members. Missing funds can challenge the stability and continuity of cooperation (O'Dowd 2001, 71; Kistenmacher 1996, 96; Ricq 2006, 142). An external financial support is especially needed at the beginning of a cooperation because being very expensive due to necessary investments and transaction costs before benefits can be achieved (Knippschild 2008, 116).

This section showed that a multitude of cross-border cooperation initiatives exist which aim at minimizing the barriers of the European internal borders and making use of the opportunities of open borders. Several of them are fostered explicitly by the EU with the ETC policy. Different types of cross-border regions were created which overcome national administrative borders and group entities from different national jurisdictions. It is cooperated in a multitude of thematic fields, among others, spatial and transport planning. In practice several challenges exist which hamper cross-border cooperation and European integration.

## **3.2 Transport across national borders**

Even in a **national perspective** transport is a very important means to connect different places. It influences the allocation of spatial functions and usages. Therefore, it influences the urban and economic development (Tolley and Turton 1995, 2).

**Commuter** traffic has developed because of different purposes such as work/education, leisure, living and shopping. Also in the case of economy, e.g. trade of goods, industries and enterprises, transport

accessibility is very important. An access to the global network is considered to be decisive for economic growth (ibid., 27). Transport accessibility is influenced by the provided **infrastructures** and the quality of offered transport services. Transport infrastructure is ascribed a high importance to enlarge the territorial capital of a region because it offers access (Ruidisch 2013, 101; Tolley and Turton 1995, 71). Territorial capital describes the spatial endogenous potential of a region in comparison to others (Böhme, Eser, Thiemo, Gaskell, Frank, and Gustedt 2008, 3). A good transport infrastructure ensures a better accessibility and shorter travel times for workers, businesses and consumers to their respective markets and makes places more attractive for both, companies and people. Highly qualitative infrastructures and services are considered to contribute to the territorial development<sup>27</sup> (Ruidisch 2013, 101; Dühr, Colomb, and Nadin 2010, 303). It makes central places more attractive compared to others. Rural regions are usually less accessible because of a low provision of transport services and its residents rely on private cars. Because of the small size of rural villages, however, there is a large need of transport in order to have access to services and goods which are not available in their villages (Tolley and Turton 1995, 6). In Germany, accessibility is a fundamental factor in the **provision of public services** and equal living conditions that shall be secured by spatial planning. This principle was established in the German Spatial Planning Law (Raumordnungsgesetz). This law also obliges spatial planning to contribute to European Cohesion by providing the necessary spatial prerequisites (Federal Republic of Germany 1997, art.3 para.2 no.12; art.1 para.2 no.8).

Particularly for border regions which are situated at the national fringes, accessibility is not only relevant within the own country: the connection to the neighbouring countries is of high importance. However, cross-border transport challenges have hampered smooth passenger and freight flows across national administrative borders. Therefore, the European Union (EU) aims at increasing territorial cohesion by promoting the linkage of member states by means of efficient **cross-border transport** infrastructures and services. The first section of this chapter goes further into details and explains the relevance of transport within the EU and across national borders.

# 3.2.1 Importance of transport infrastructure and services across borders for the EU

Cross-border transport is said to be very relevant for the further European integration as it facilitates the cross-border mobility of its citizens and the creation of links across borders (CONPASS Consortium 2002a, 7).

## Accessibility in the EU

The development of transport in Europe has been strongly influenced by politics and strategies. The political demarcation between the different nations within Europe has hampered mobility flows because physical borders were constructed (Tolley and Turton 1995, 48). Therefore each country developed a national centralised transport planning system independent from the transport systems in its neighbouring countries. European integration opened up the borders, based, among others, on the Schengen Agreement, and facilitated new transport connections and a new organization of the establishment of cross-border transport infrastructure links (Ruidisch 2013, 102). Investments into transport infrastructure and services in remote areas were to contribute to a balanced development of the EU and thus, a minimization of disparities. Therefore cross-border cooperation in the field of transport was strongly pushed forward (Priemus and Zonneveld 2003, 169). The transport networks of the member states were to be connected better to allow a smooth mobility of passengers and goods among the member states. In the beginning EU investments were often focussed on national needs of member states

<sup>&</sup>lt;sup>27</sup> This expectation, however, is contested by several economists. It might even have contrary effects (Dühr, Colomb, and Nadin 2010, 303).

with inefficient transport systems, however, also physical barriers were to be overcome in the Alps with the construction of tunnels (Tolley and Turton 1995, 119). However, according to the European Commission, most difficulties in the implementation of transport projects have been experienced in cross-border transport sections (European Commission 2014b, 2).

In this context the EU developed a **transnational transport policy** because of several reasons. First, transport was directly linked to economic growth and competitiveness, European cohesion and sustainable development. Second, also in terms of environment the transport sector had a strong impact (Dühr, Colomb, and Nadin 2010, 295) which was to be steered at transnational level. However, steering a common transport policy at EU level faces several challenges because of the diverging transport systems and –planning understandings of the member states (Tolley and Turton 1995, 349).

To ensure a smooth mobility across the member states an (institutional) **corridor concept** was introduced to merge the different needs for a coordinated transport development across borders under one issue. One example is the 'Eurocorridor' which shall link cities influenced by strong cross-border transport flows. This corridor shall consist of different transport mode axes. The concept was taken up in the ESDP and promoted to link EU sector policies and territorial development (Priemus and Zonneveld 2003, 169; Informal Council of Ministers responsible for Spatial Planning 1999, 70). Additionally, in 2013 the corridor concept was adopted in the TEN-T policy for their own purpose: the basis of the European transport network shall consist of the European capitals, Metropolitan Growth Areas as well as certain sea, inland waterway and air ports and important cross-border sections between the member states (Adelsberger 2012, 342).

As stated in the previous section, the diversity of the European border regions makes it attractive for border citizens to cross borders and benefit from factors that are not available on the other side of the border. Therefore, the transport infrastructure which allows the access to the other side of the border is very relevant (Spierings and Velde 2013, 1). Additionally, in some border areas, e.g. the Greater Region (F-LUX-BE-DE), there are high numbers of daily **cross-border commuters** (see **Figure 10**). Many of them work on the other side of the border but realise also other daily life practices in the close neighbouring country (Wille 2015a, 133; Dörry and Decoville 2013, 1).

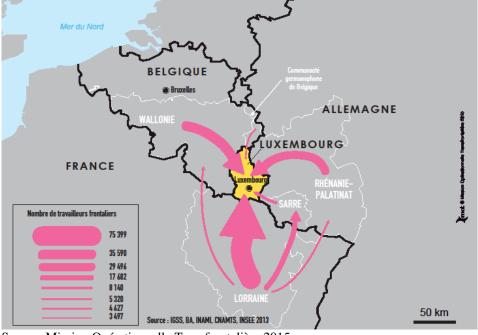


Figure 10: Cross-border commuters to Luxembourg within the Greater Region

Source: Mission Opérationnelle Transfrontalière 2015a.

These flows, mainly conducted in motorized individual transport means, can lead to overloaded roads and environmental consequences. It was found out that the larger the socio-economic disparities between border regions, the higher is the cross-border mobility (Decoville et al. 2013, 221). Thus, high numbers of commuters are an important reason to improve transport infrastructure and services across borders.

## Cross-border cooperation in the field of transport

The field of transport is a very popular playground for cross-border cooperations. Projects can focus on the assessment of needs within the cross-border region concerning infrastructure and services. Intermodal plans can be exchanged to better link the domestic systems with each other. Common planning can be done to optimise cross-border tracks and services of roads or railways. Cross-border transport providers can be established with coordinated prices and smooth services if legally possible (Ricq 2006, 113). A good transport connection across borders is expected to further improve cross-border cooperation and attract further investments in cross-border regions. Common large-scale cross-border transport projects can be an important impetus for a cross-border region's development and identity also in the minds of its residents. One large project can lead to the establishment of other transport initiatives at lower levels (Schönweitz 2013, 127).

Despite the popularity of transport projects in cross-border cooperation, several challenges exist in the cross-border transport practice. These are presented in the next chapter.

# 3.2.2 Challenges of cross-border transport

As can be seen a common European transport system has been considered to be very relevant for the EU territory. However, the efforts are evaluated not to be advanced very far. Although ambitious goals have been formulated and efforts have been made to contribute to an efficient inner European transport system, bottlenecks and inefficient cross-linked transport services at borders are still reality within large parts of the EU (European Commission 2011a, 2).

The challenges that led to the slow development are to be presented in this chapter. The information is based on the findings of three earlier research projects on European transport policies conducted within the 4th Framework Programme (TENASSESS, 1999), the ESPON programme (ESPON 2.1.1, 2004) as well as the 5<sup>th</sup> Framework Programme (CONPASS Consortium 2002b).

The implementation of transport projects in general has been slow because of mostly very complex and large processes. In comparison to other EU funded projects they belong to the slowest implemented projects (AECOM Limited 2015, 3). Transport projects in cross-border contexts face additional challenges such as different planning procedures and cultures (e.g. diverging consultation procurement and concession requirements), different legal requirements, budgetary and financial difficulties, long-lasting processes and higher preparation efforts (see **chapter 3.1.2**). These challenges might result in a less efficient implementation. In addition there are more specific cross-border transport challenges which will be presented shortly in the following.

## Natural barriers

As has already been stated in the section about challenges in cross-border cooperation in general (see **chapter 3.1.2**) sometimes natural barriers like rivers, mountains and the sea between border regions intersect cross-border regions. Thus, the situation of these cross-border regions and other directly bordering regions has to be differentiated. Especially when it comes to the establishment of cross-border transport infrastructure these natural borders become a challenge: infrastructure costs are increased because tunnels, bridges or special services need to be established.

#### Legal and administrative differences

As the EU policies are only the framework within which the member states develop their own policies (see **chapters 4 and 6**) there is a high variety of different **national regulations** on transport in the EU member states. The differences can be explained with different traditions and experiences that still influence the current policies to a certain extent (Giorgi et al. 1999, 7). Also the implementation of the Trans-European Transport Networks (TEN-T) across borders has experienced problems mainly due to different **legal structures** and **planning systems**. These differences hamper cross-border planning and slow down the development pace (Dühr, Colomb, and Nadin 2010, 302).

Differences exist as well in the **responsibilities** of institutions in the field of transport, the levels involved (decentralisation vs. centralisation, role of regional and local levels) and in **decision-making** processes (involvement of public and other stakeholders) (Giorgi et al. 1999, 7). The institutions involved often come from different administrative levels and have different competences. This makes cooperation more difficult (Dörry and Decoville 2013, 15). Often decision-making is dependent on individual traditional domestic processes and therefore does not work smoothly at a cross-border level (ibid., 2). Furthermore, planners are usually bound to their administrative boundaries and not empowered to plan across borders. Often the national levels then have to be involved. A high number of actors slows down the planning process (CONPASS Consortium 2002a, 19).

#### Transport planning-cultural differences

Besides that, different member states vary in their planning cultures (instruments, evaluation, monitoring etc.) (Giorgi et al. 1999, 7). The TENASSES project defined four 'ideal transport planning approaches' (ESPON 2004, 8) to illustrate the potential range of differences in transport planning attitudes:

- In the "traditional" approach the state wants to remove spatial disparities concerning accessibility etc. and aims at reaching cohesion and an overall improvement of the whole region;
- In the "modern" approach, that is strongly influenced by a privatisation in the transport sector, private actors plan and invest in the infrastructure based on their economic interests;
- Within the "liberal" approach the transport market is regulated by pricing and taxation instruments to increase the transparency and liability of projects;
- In the "ecological" approach transport is considered to be necessary but the environmental effects need to be minimized. Therefore it is less invested in infrastructure and strict laws protecting the environment exist. The aim is to implement measures to avoid the necessity to use transport.

Besides these approaches, also projects can be prioritized in different ways: Whereas one section of a transport track is more important for one country another might be prioritized by the other (Leibenath, Korcelli-Olejniczak, and Knippschild 2008, 29). Therefore it is not easy to find an agreement.

#### Diverging domestic strategies, planning measures and implementation

In the implementation process of a cross-border project different national **interests** can conflict with each other and prevent the implementation (Giorgi et al. 1999, 9). Cross-border infrastructure and public services are often highly strategic issues of countries. Therefore, finding a consensus which incorporates all interests is a complex process (Dörry and Decoville 2013, 15).

Besides that, the implementation of large infrastructure projects is very **time intensive** because of the big scale and large consultation and negotiation processes. Additionally the different parts of projects need to be harmonized (Giorgi et al. 1999, 11).

Another issue that may complicate a cross-border implementation of a transport project are different **measures** how to assess the impact of a project on the environment and different reaction/ ranking of importance based on institutional differences in the member states. This influences the strategies and planning proposals of the different involved stakeholders (ibid., 10).

## Prizing and financing

Within the member states different reasons and **strategies for pricing** of transport infrastructure and services exist (cover internal and external costs, minimize road traffic, financing of the infrastructure) that can be contradictory (ibid., 9). Transport infrastructure is often established by economically interested companies that want to increase their profit and are not interested in territorial cohesion. Thus, the outcome of the aims of EU support are said to be strongly shaped by the interest of the **implementing companies** (Ruidisch 2013, 107). Furthermore, some member states are reluctant to privatize and liberalise the provision of services in the transport sector as transport fees have been an important income for the states (ESPON 2004, 241). Besides that, the EU does not have any **competence in taxation** or charging, this is decided by the member states themselves (ibid., 53).

Furthermore, the financing is a big issue for transport projects. Often the **financial means** are missing, and the idea of the European Commission to use public private partnerships turned out to be hard to implement in practice. Often the projects were split-up in smaller parts to secure the financing. This however, led to solely national sub-projects (Giorgi et al. 1999, 10) and hampered the cross-border cooperation and the implementation of common ideas and strategies.

### Public transport service provision

The challenges presented above are also valid for public transport. Also in the case of cross-border transport services legal differences play a challenging role. All domestic regulations of the countries concerned (e.g. on prizing, subventions, financing models, organisational structures) have to be fulfilled (CONPASS Consortium 2002a, 8). Also the administrative and institutional characteristics of the crossed member states challenge a smooth transport service across borders for instance in the fields of responsibilities, licences, standards, working conditions, currencies, taxes etc. (Barth 2014, 53). In addition, special challenges exist which will be presented in the following.

Often cross-border **organisational structures** are missing which could develop efficient cross-border services (CONPASS Consortium 2002a, 29). Additionally, many times vehicles or service providers have to be changed at the border because of technical differences between bordering countries. What makes it worse is that the connections are often not coordinated so there is a large time loss on the journey (ibid., 18). Furthermore, the administrative efforts to establish and conduct cross-border services are very high (Barth 2014, 53).

In cross-border public transport, often **legal structures** of the member states concerned are not adjusted to cross-border services. Therefore laws might need to be adapted or legal niches have to be identified to allow cross-border services.

Also in the case of transport service, the **financing** and **pricing** is a complex issue. Often cross-border trips are more expensive than comparable ones within one country. Additionally, often no discount tickets are available in cross-border connections. Sometimes, even different tickets have to be bought separately for one cross-border journey (CONPASS Consortium 2002a, 20).

It is more likely that **densely populated** border areas develop a sufficient **demand** for cross-border transport connections and make the offer efficient than rural areas (ibid., 8). Transport services offered to a low demand are **not attractive** because of low frequencies, slow and missing connections and therefore often loose further customers (ibid., 18). Reasons for a high demand for public transport services across borders are **attractive** neighbouring regions because of good working and education conditions as well as cheap goods and services (e.g. in the health sector) for foreign people. Furthermore, **low barriers** between the border regions, because of similar cultures and languages, favour a frequent mobility. Cross-border public services might be attractive as well when individual transport is hampered or not available (ibid., 8). The (multi-lingual) **information** availability about cross-border services,

prices, time-tables etc. as well as the degree of coordination of cross-border connections influences the usage of cross-border transport services (CONPASS Consortium 2002b, 49). Special tickets that promote the crossing of the border are beneficial for a higher demand (CONPASS Consortium 2002a, 31).<sup>28</sup>

## Transport policy making

The transport system characteristics of the EU member states vary strongly because they were developed independently from their neighbouring countries according to the own needs (Robert et al. 2001, 65). Often national transport policies and planning of neighbouring countries are not **coordinated** sufficiently because of a lack of **information** on the domestic plans (Leibenath, Korcelli-Olejniczak, and Knippschild 2008, 31). The decision to establish a common European transport system by linking the different domestic systems did not lead automatically to a homogenous network. This is especially true as the national transport systems still exist and have not been demolished (Robert et al. 2001, 65). The EU policy aims at harmonizing the transport policies of the member states. However, this is not easy because of the **high diversity** of domestic transport planning systems. The member states may **interpret** the EU policies differently. The national laws usually contain a mixture of EU and national objectives – sometimes balanced, sometimes with a certain domination (ESPON 2004, 255). This can lead to conflicts between the member states if they want to develop a common transport project. The national legislations and policies of other member states are often not known, among others, because of **language barriers** (ibid., 38). More details on the EU Transport Policy are provided in **chapter 4**.

### Decisive individual characteristics of the cross-border regions

The functioning of cross-border transport depends on several stages besides the physical equipment. Guasco identified three basic elements of cross-border regions that influence cross-border transport. First of all, the structural context of the cross-border region and especially its **governance and organizational structure** influences the decision-making and communication processes across borders. Secondly, the different **national** or sub national (if available) **transport policies** of the member states are decisive. In addition to transport policies other domestic policies can have an impact. Here it is important how the policies are made and if there are attempts to harmonize the policies within the cross-border region. Third, the **planning process** is very relevant: How is the transport development planned? Are there attempts of cross-border planning? All three elements have different focuses and also the stakeholders vary. The first two elements are mainly influenced by politicians, the third (planning-) stage involves planning- and transport experts besides politicians that decide about the implementation of the plans (ibid., 23).

These three elements will be taken into account when analysing the EU policy influence on the two case studies in **chapter 6**.

This section showed that the coordination of transport across national borders in the EU has a high importance and different approaches exist to enhance cross-border transport. However, it is a complex issue, especially because of the traditional nationally focused transport development which entails different planning systems, procedures and attitudes that are difficult to coordinate.

# 3.3 Status quo of the EU Transport System

This chapter attempts to provide an overview about the current EU transport system demonstrating the most important fields of action and challenges which shall be tackled by EU policies and the policies of the member states to reach the overall aim of the completion of an EU wide connected transport system with a high accessibility.

<sup>&</sup>lt;sup>28</sup> For more information about challenges in cross-border local transport see Barth 2014.

First EU statistical data will be analysed and presented which will be complemented in a second step with the evaluation of the status quo in selected EU policy documents.

# 3.3.1 Status quo based on statistical data

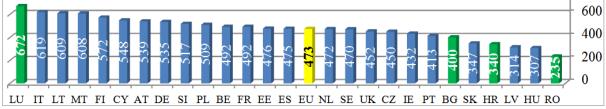
In terms of transport development, EUROSTAT and diverse ESPON projects provide several relevant indicators which will be presented in the following and show the diverse picture of the transport situation in the EU member states as well as EU wide challenges.

# Modal Split

When looking at the European transport system it is very important to consider the current modal split, i.e. the division of traffic flows on different transport modes. One of the EU objectives is to shift transport from the road to more environmentally friendly transport modes such as rail or waterways (see **chapters 3.3.2** and **4**.). However, the dominating transport mode is still the road. This is true for freight and passenger transport (see **Figure 12** and **Figure 13**).

**Figure 11** shows the high number of cars that are owned in some member states in relation to the number of inhabitants, in Luxembourg, for instance, 672 cars are owned per 1000 inhabitants which is the highest ratio in the EU. The newest member states Romania, Bulgaria and Croatia are among the six member states with the lowest car ownership per inhabitants. Besides that, however, there is no clear picture when comparing old and 'newer' member states that accessed the EU in 2004. On average 473 cars were owned per 1000 inhabitants in the EU in 2013<sup>29</sup>.

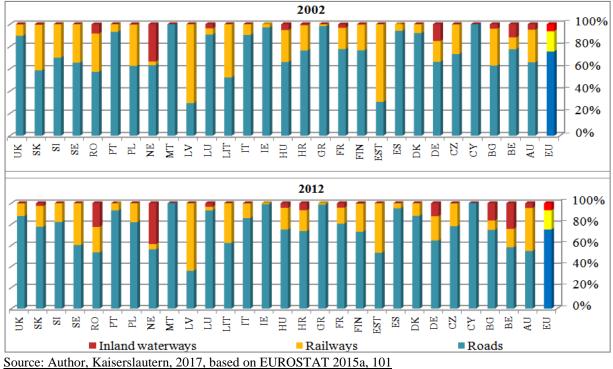
Figure 11: Number of cars per 1000 inhabitants in 2013<sup>29</sup>



Source: Author, Kaiserslautern, 2017, based on EUROSTAT 2015b

As can be seen in **Figure 12** 75% of all EU freight transport takes place on the road. Some member states have even higher shares such as Cyprus, Greece, Ireland, Luxembourg, Malta and Portugal. Comparing the modal split in freight transport of 2012 with the one of 2002, the EU average has changed only marginally whereas some countries changed much. Examples of increased road transport are Bulgaria, Estonia, Poland and Slovakia whose rail transport share has decreased after their accession to the EU. On the contrary, Belgium has strongly decreased its road transport. Croatia and Romania have especially improved the share of their inland waterways. Looking at the overall picture it can be seen that the shift of transport modes towards more sustainable modes is progressing slowly in most cases and in some cases even negatively.

<sup>&</sup>lt;sup>29</sup> No data was available for Greece and Denmark. Therefore, the EU average value does not include the values of both countries.



#### Figure 12: Modal split of inland freight transport in the EU and its member states in 2002 and 2012

For passenger transport the picture looks similar (see **Figure 13**). Most passenger mobility takes place in individual cars. The numbers have not changed much in the EU average between 2002 and 2012. Whereas eight member states have reduced their usage of cars in passenger transport, it grew within 20 member states, especially Bulgaria (+30%). Estonia and Slovakia (+17%) as well as Hungary and Lithuania (+11%) show a growing usage of cars. The highest reduction took place in Italy (-5%). Although being among those member states with growing car transport, Hungary is the member state with the lowest car usage in passenger transport in 2012. For passenger transport within the member states buses are more popular than trains.

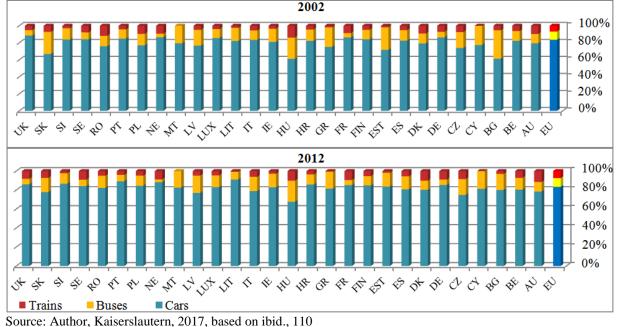


Figure 13: Modal split of inland passenger transport in the EU and its member states in 2002 and 2012

## Transport Safety

The improvement of transport safety and the reduction of the number of death in road transport are very relevant objectives in the EU policies. Since 2005 the numbers of persons killed has been decreased much, but the number varies strongly among the member states.

**Figure 14** displays the numbers per million inhabitants and thus, makes the data comparable. Latvia and Romania are the countries with most persons killed in 2014 whereas the UK, Sweden, the Netherlands and Malta show the lowest numbers. The new EU member states tendentially show higher death rates. Thus, these countries have to invest more into the improvement of safety on roads. Still, safety shall be improved further in all countries – also in the residual transport modes (see **chapter 3.3.2**).

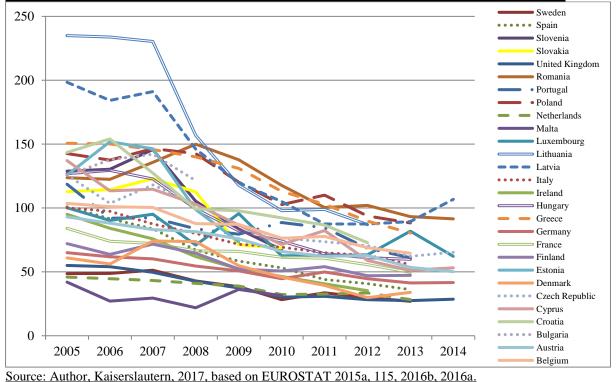


Figure 14: Persons killed in road accidents per million inhabitants 2005-2014 in EU member states

## Accessibility

Accessibility is one of the most important buzz words for the European transport network development. It is to be improved in all parts of the EU (see **chapters 3.3.2** and **4**). The accessibility varies in freight and passenger transport.

The left hand side of **Figure 15** displays the potential accessibility of unitised freight. As can be seen the freight accessibility to GDP varies strongly within each member state (yellow regions are less accessible than the average, blue regions have a higher accessibility). Additionally, high passenger rail accessibility to population is only provided in the European core. Prominent are the western parts of Poland and the Czech Republic which are still quite central but do not to have an efficient rail network across their borders in 2013 (see left hand side of **Figure 15**).

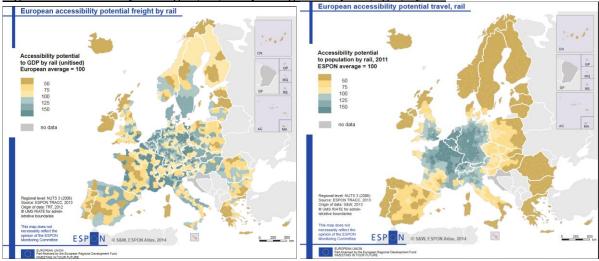
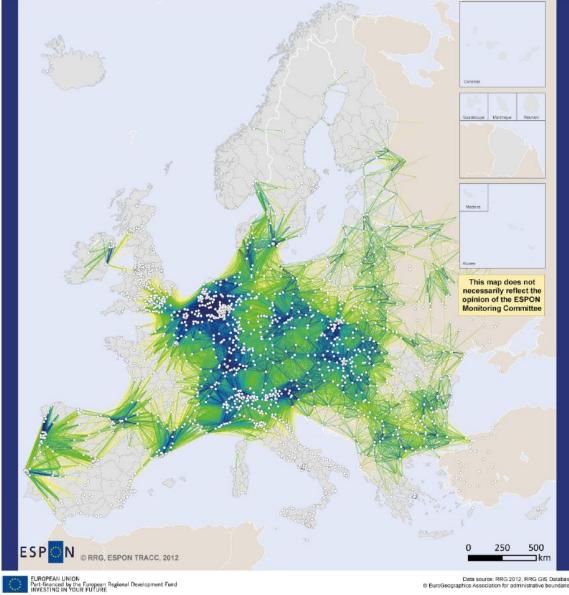


Figure 15: Accessibility of freight (left) and passenger transport (right) by rail

Source: ESPON 2014, 56 and 58.

Figure 16: Urban connectivity by roads



Source: ESPON, Spiekermann, and Wegener 2015, 97.

Data source: RRG 2012, RRG GIS Database ographics Association for administrative boundaries © Euro(

83

According to Figure 16 the best cross-border urban road connections exist between the Benelux countries, France and Western Germany - marked in dark blue. Also some efficient connections between old and new member states exist. However, particularly rail connections across borders between old and new member states were found out to be less efficient. High speed rail connections are sometimes more efficient in linking capital cities that are not located at the national borders (ibid., 88).

When comparing the transnational road and rail connectivity between neighbouring member states the Eastern member states have a less effective train transport and offer less high-speed connections, whereas the road connectivity is balanced between east and west. Additionally, there is a divide between rural and urban regions. Rural regions are less accessible than urban hubs. Furthermore, there is a positive correlation between economic prosperity of regions and their degree of accessibility (ESPON 2014, 57).

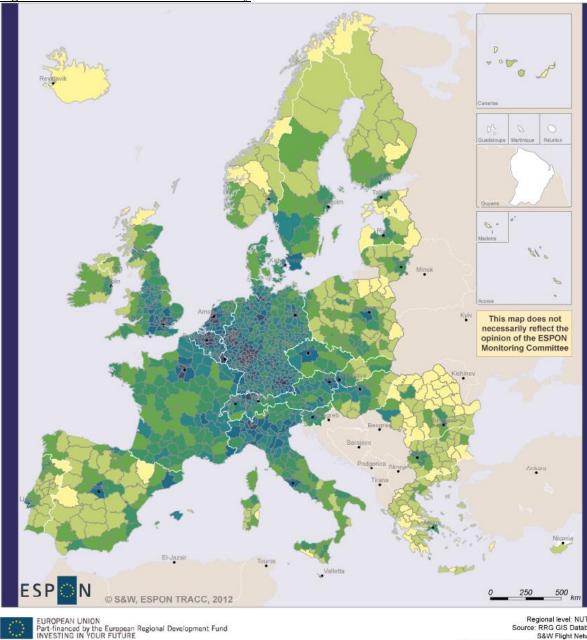
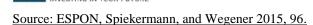
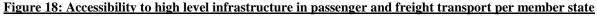


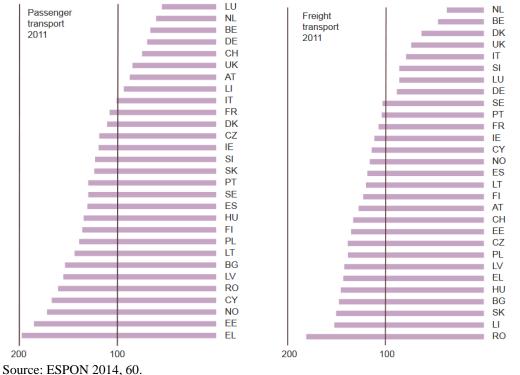
Figure 17: Potential intermodal accessibility



Regional level: NUTS-3 RRG GIS Database Source S&W Flight Network Origin of data: S&W Accessibility model, 2012 **Figure 17** shows the potential intermodal accessibility of places. The darker the regions are, the higher the accessibility. The potential accessibility varies within and between the member states. The European core has a better accessibility compared to the rest of the EU. Within urban hubs the accessibility is higher.

Figure 18 and Figure 19 show the uneven distribution of high level infrastructure within the member states. The numbers display the national and NUTS 3 level average distances to high speed infrastructure. Within the member states the numbers vary strongly as well. The European average for Figure 18 lies at 100. More than half of the member states need more than the average European time to reach high level infrastructure. Furthermore, it can be seen that the numbers differ between freight and passenger transport. Generally, the new member states have a less accessible fast transport infrastructure than the old member states. However, exceptions exist, Greece, for instance, although being a member of the EU since many years has a poor access to high level infrastructure in both categories whereas Slovenia as new member state has a very efficient freight transport.





When looking at the comparison of the NUTS 3 regions (**Figure 19**) (high accessibility in red and warm colours, low accessibility in green and blue) the accessibility to high level transport is much more moderate in passenger transport than in freight transport: some regions are very disadvantaged in their accessibility to high level freight transport infrastructure.

When looking at the accessibility of cities (**Figure 20**) (larger than 50,000 inhabitants), which offer urban functions, the EU wide pictures varies again, especially within the member states: Densely populated areas offer a higher variety of central functions than rural areas. In some member states, like Germany, cities are strongly dispersed and decentralised, whereas other countries have a high concentration of accessible cities within one hour, only in some parts of their territory. The geographically more central (West-) European member states have a higher accessibility of cities than more peripheral countries.

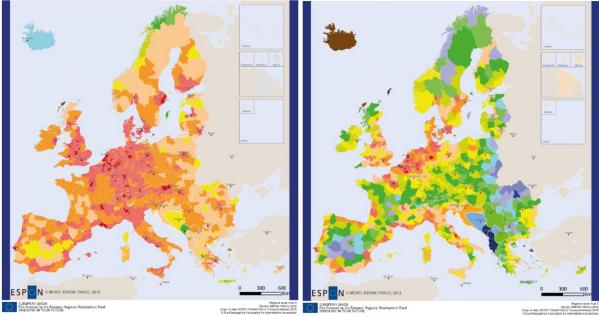
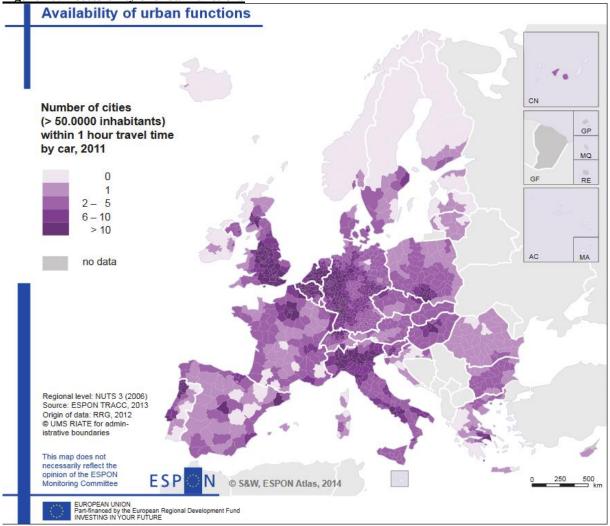


Figure 19: High level passenger (left) and freight accessibility (right)

Source: ESPON, Spiekermann, and Wegener 2015, 108 and 111.





Source: ESPON 2014, 60.

When analysing the accessibility within the EU it has to be differentiated between the **modes of transport** – especially between accessibility of places by motorized individual transport (car) and public transport in general. Looking at **Figure 21** the travel time needed to reach the next hospital varies between car and public transport. The latter is much slower. Only in the Czech Republic, there is a surprisingly similarity between both modes.

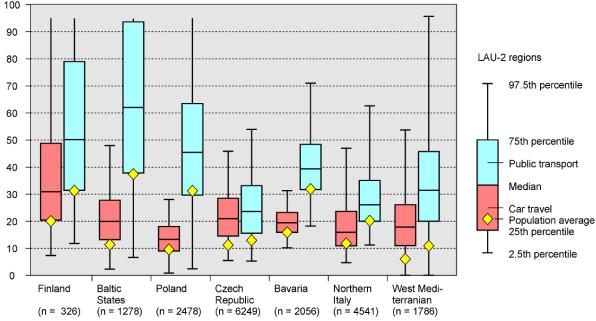


Figure 21: Travel time (minutes) to the next hospital in different member states

The basis for **Figure 22** is the assumption that the EU internal borders are closed to evaluate the internal potential accessibility to the population within a member state. The picture shows that the more central spaces of the countries have a higher accessibility (dark blue) whereas the border and peripheral areas (green and beige) are less accessible. Thus, it is very important that the EU internal borders are permeable so that the border areas are better integrated in the transport infrastructure.

#### **Cross-border commuters**

The EU fosters the mobility of its citizens within the EU. This mobility shall contribute to further cohesion and thus, is to be enlarged. So far, there is a high amount of EU citizens which benefits from the possible working mobility within the EU. Some of them commute to work on the other side of the border on a daily or weekly basis. This is due to the spatial disparities between urban and rural areas as well as differing working conditions within the EU and its member states. In 2007, most of EU cross-border workers came from France (290.000), Germany (120.000) and Belgium (77.000). In general, the numbers have been growing since 1999. Some of the new member states like Slovakia, Estonia and Hungary show high growth rates compared to the numbers of 2004 (MKW Wirtschaftsforschung GmbH and Empirica Kft. 2009, 19).

Most cross-border workers in the EU commute to Luxembourg (126.000), Germany (87.000) and the Netherlands (60.000) besides the non-EU country Switzerland. Compared to before, the popularity of Germany as a place to work has decreased whereas Luxembourg, the Netherlands, Austria, the Czech Republic and Denmark show growing numbers of cross-border workers on their territory (ibid., 21). The high flows of cross-border commuters have strong effects on the inner-European transport. Often, the infrastructure and provision of services were not designed for the high and growing numbers of cross-border transport there is a need to adapt transport infrastructures and services.

Source: ESPON, Spiekermann, and Wegener 2015, 174

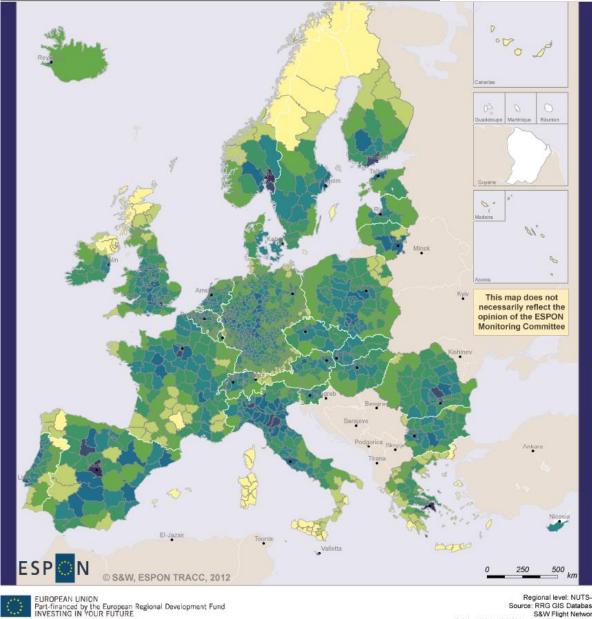


Figure 22: Potential internal population accessibility of member states by rail

Source : ESPON, Spiekermann, and Wegener 2015, 120.

Regional level: NUTS-3 Source: RRG GIS Database Save S&W Flight Network Origin of data: S&W Accessibility model, 2012 C EuroGeographics Association for administrative bour

#### Status quo of the transport network and cross-border transport

Based on the above described statistical data, several challenges for the European transport network can be identified in public transport services and the accessibility of central functions and primary infrastructures.

#### Car versus public transport

- high number of cars and road transport in old and new member states, low and slow progress in the usage of more environmental friendly public transport (after EU accession often even reduction of public transport)
- decreased road accidents but still high numbers in several new member states
- often high travel time by public transport compared to individual car to reach certain services ٠
- high **disparities** between the EU core and the residual parts of the EU, not only because of its high density but also because of less effective high level transport infrastructures in the residual spaces,
- bad transport interconnections within the Eastern European and Nordic countries compared to Western Europe, especially low accessibility of rail passenger transport outside the European core

• **low connectivity** between neighbouring old and new member states **by rail**, especially **between border regions**, sometimes better connections between capital regions not situated at the border

#### Accessibility of central functions and high level infrastructure

- low accessibility of peripheral, less economically prosperous, rural regions, often affected by demographic change to urban functions/jobs especially in non-central areas of a country provided with the assumption of closed national borders
- growing number cross-border commuters requires appropriate transport infrastructure and services to prevent congestions
- low accessibility to high level infrastructures in more than half of the member states
- good access to high level freight infrastructure is restricted to few EU regions

The statistics show that many disparities exist in the distribution of the EU transport infrastructure and service accessibility which hinder the completion of the European transport network. Often the transport connections between the member states are challenged. In terms of provision of services, goods and jobs, however, border regions could benefit from the nearby offer on the other side of the border. This potential, though, is dependent of the cross-border accessibility and thus, the existing cross-border infrastructure and services.

The following chapter presents a short evaluation of the status quo of the transport system in selected EU policy documents which complement the transport statistics of this chapter.

## 3.3.2 Evaluation of the status quo in EU policies

Several EU Transport Policy documents review the establishment of the European transport system up to now and present its current status. In general, displeasure is shown towards the pace of transport development and European integration. The EU policy has not reached its objectives as fast as expected.

Ten years ago, the "*Mid-term review* – *Keep Europe moving*" (2006) of the White Paper of 2001, defined a number of challenges in the EU transport system: **Bottlenecks** needed to be minimized and the **accessibility** enlarged, especially in the light of the Eastern enlargement of the EU in 2004. Additionally, the problem of  $CO_2$  emissions was tackled by the call to shift transport to alternative modes to the road e.g. rail and waterways (European Commission 2006a, 4).

The Green Paper "*TEN-T: A policy review*" of 2009 examined the effects of the TEN-T policy and criticized the **missing and long lasting implementation processes** of some priority projects (Commission of the European Communities 2009a, 2). So far, European planning on the most important transport axes had **not been efficiently connected** to national transport planning instances of the member states and should be clarified (ibid., 5). Furthermore, it called for a definition of common aims and capacity standards at EU level and a steering of the development of cross-border transport sections by the European Commission to contribute to a coordinated implementation of transport projects (ibid., 4). Additionally, the **knowledge** on the European transport system was to be enlarged and the public informed (ibid., 7).

In the White Paper "*Roadmap to a single European transport area*" of 2011 (see also **chapter 4**) it was criticized that the transport system had **not** yet become **sustainable** and **proceeded to slowly** (European Commission 2011c, 4). This statement was based on an evaluation of the policy's achievements since the earlier White Paper of 2001. Furthermore, common EU-wide visions were missing. Amendments needed to be done in several areas such as **transport efficiency, environmental friendliness, share of public and alternative transport modes** and **multi-modality**. Besides this, still existing **barriers between the transport infrastructures** of the member states were to be reduced (ibid., 5).

The Communication "A growth package for integrated European infrastructures" (2011) criticized again the **bad condition of cross-border connections** between the member states and thus,

shortcomings in the integration of the domestic transport systems. Here planning and project management processes as well as the financing needed to be coordinated better between the member states. Furthermore, the degree of **interoperability** and **resource efficiency** still needed to be improved (European Commission 2011a, 2).

The documents show that the EU assesses the status quo of the EU transport system to be improvable as well despite a long lasting support of the European Union's transport development. There are still several fields in which improvements are needed and investments should be taken.

## Contribution of cohesion and transport policy to transport development and economic growth

In the comparison of the member states' planned transport investments in the **Cohesion Policy** (2007-2013) the new member states (EU12) aimed at investing a higher percentages of the funds in transport infrastructure than most of the old member states (EU15) because of a high backlog. Up to 38% of their new member states' funds were to be spent on transport development. The Cohesion Policy was expected to highly support the development of the TEN-T with its own funds.

When looking at **Table 5**, the direct impact of the Cohesion Policy 2007-2013 funds on road infrastructure can be discovered. Again, the new member states are strongly involved in the construction on new road infrastructures, especially also in their contribution to the TEN-T.

km of new roads		km of new 2	FEN-T
		roads	5
member state	Km	member state	Km
Poland	1595	Poland	834
Hungary	443	Bulgaria	141
Czech	293	Romania	140
Portugal	290	Portugal	137
Spain	279	Hungary	114
Germany	274	Czech	103
Romania	162	Spain	88
Bulgaria	141	Greece	88
Slovakia	72	Germany	71
Estonia	70	Slovenia	52
Italy	61	Slovakia	39
France	28	UK	6
UK	12	Cyprus	3
Sweden	9	Total	1816
Slovenia	3		
Total	3732		

Table 5: Constructed road kilometres b	y Cohesion Policy in 2007-2013

Source : Author, based on AECOM Limited 2015, 4

**Figure 23** shows the height of real **investments of Cohesion Policy** to transport within the member states in the last funding period (2007-2013). Poland stands out with over 25,000 million Euros of investments. Besides that, Spain, the Czech Republic, Hungary, Greece and Romania strongly invested in transport infrastructure as well. Luxembourg and Denmark have not invested in transport infrastructure through Cohesion Policy at all. 1,058 million Euros were spent in the ETC programme, i.e. the cross-border cooperation (CBC) programmes, on transport purposes.

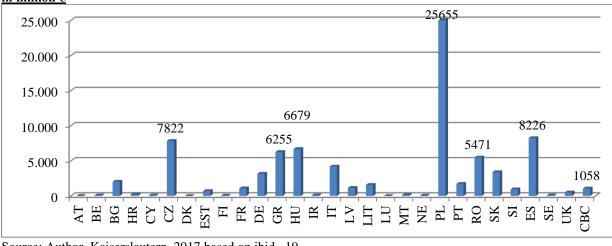
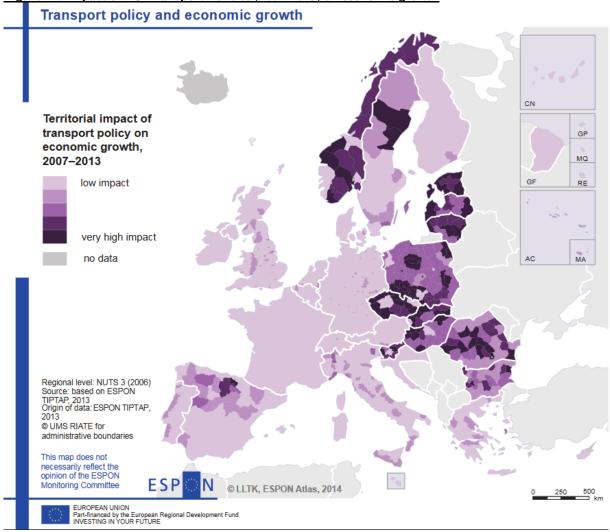


Figure 23: Investments of Cohesion Policy funds in transport infrastructure per member state (2007-2013) in million €

Source: Author, Kaiserslautern, 2017 based on ibid., 19

Investments in the transport infrastructure of the **European Transport Policy** are expected to contribute to economic growth, particularly in the new member states (see **Figure 24**). Strong impacts were measured for the funding period (2007-2013) also in Norway as well as northern parts of Sweden but less in countries with already highly developed infrastructures.





Source: ESPON 2014, 96.

After this evaluation of the status quo of EU transport infrastructure and a preliminary evaluation of potential contribution of EU Cohesion and Transport Policy to the European transport development in general, it is to be investigated in the following chapters how the EU policy contributes to cross-border transport within the EU. Therefore, the following chapter presents the main EU policies in place that influence the development of cross-border transport.

## 4 EU policies influencing cross-border transport

European policy fields differ much. Some policy fields are less institutionalised i.e. less legitimated by law or lead to a lower convergence of the national policies (Bartolini 2009, 185). Guasco categorizes European Cohesion and Transport Policy as 'dissociated policies' in which different levels of administration and politics are involved (Guasco 2015, 25). Their sub policy fields Trans-European Transport Networks (TEN-T) and European Territorial Cooperation (ETC) are in the focus of this dissertation because they address the cross-border transport development from supranational level. The character of both policies will be described in this chapter as it is expected to influence their implementation in the member states. First, basic information on the policy-making in both fields is given including information on the policies' character. Second, the objectives of the policies and their development over time – investigating the *functional spillover*<sup>30</sup> - are presented. An emphasis is laid on the last (2007-2013) and current funding period (2014-2020). For these two periods also the related available funding mechanisms are presented. Subsequently, the two policies are compared and it is investigated if and how they are mutually coordinated with regard to their influence on cross-border transport.

### 4.1 European Transport and TEN-T Policy

The EU Transport Policy is a **sectoral** European policy. It mainly focuses on European **transport development**. Still it has a strong impact on the European territory and is tied to the European Cohesion Policy (Robert et al. 2001, 115).

### 4.1.1 Transport policy making & policy characteristics

### Transport and TEN-T Policy making

For the European Union (EU) transport is an important issue. As such the task to establish a common European transport policy has been anchored in the EU Treaties since 1957 (Council of the European Communities 1957, 3). Three mains issues<sup>31</sup> are to be regulated on European level. This includes common rules for **international transport** within the EU territory and the definition of conditions for **transport operators originating from other member states**. The third issue concerns regulations about actions to enhance **transport safety**. Any "other appropriate provisions" (European Union 1993, 75) can be regulated as well. The fields of common regulation in transport have not changed significantly since 1992 (European Union 2009, 91).

According to the Treaty of Lisbon transport is a **shared competence** between the EU and the member states (ibid., 2). This means that the EU does not have the sole competence, but acts according to the principle of **subsidiarity** "only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the member states and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community" (European Union 2012, 1).

Articles 170-172 of the consolidated version of the Treaty of the Functioning of the European Union (2012) describe the EU competences in the **Trans-European (Transport) Networks** (TEN-T). The EU is empowered to develop **guidelines** containing the main aims, priorities and actions and instruments of the TEN-T. Additionally, it shall **define projects of European added value**. Furthermore, the supranational level shall realise **actions** relevant for the interoperability of transport within the EU, especially in technical standards. The EU can **support** prioritized projects

<sup>&</sup>lt;sup>30</sup> More information on the theoretical approach of functional spillover –being part of the theories of European integration can be found in **chapter 2.1**.

<sup>&</sup>lt;sup>31</sup> The three issues were defined by the Maastricht Treaty in 1992.

of common interest financially or through feasibility studies. However, projects should be economically viable. In addition, the treaty asks the member states to **coordinate** their **national policies** which can be promoted by the European Commission's initiatives (ibid., 170). The TEN-T policy is regulated at EU level because the priorities and basic requirements cannot be defined adequately at the member states level. Therefore the subsidiarity principle is applied (European Parliament and Council of the European Union 2010, 8).

The EU Transport and the TEN-T Policy are developed under **supranational co-decision making** between the European Council and the European Parliament. Policy proposals are initiated by the European Commission. The main directorates general (DG) of the Commission is DG MOVE, however also other DGs are involved in policy-making like DG Environment and DG REGIO. Most decisions are based on **qualified majority voting** (Robert et al. 2001, 55; Dühr, Colomb, and Nadin 2010, 299). In the case of the **TEN-T** guidelines the European Parliament and Council have to reach **consensus** to adopt changes in the legal frame because the TEN-T concern the territory of all member states. Thus, their approval is needed (Robert et al. 2001, 55). In addition non-administrative economic and environmental interest groups try to influence the transport policy development (Dühr, Colomb, and Nadin 2010, 299).

Coming back to Europeanisation theories (see **chapter 2.2**) it is relevant to classify the TEN-T policy whose influence is to be analysed. In the beginning the EU Transport Policy was mainly **regulative** by facilitating the harmonisation of standards and contributing to the liberalisation of the transport market (ibid., 296). The development of the European transport market e.g. is based on the strategy of 'controlled liberalisation'. This means that a liberalisation of the market is to be reached but the development of further inequalities between the member states or the EU regions is to be avoided by clear rules (Robert et al. 2001, 55). In the 1990ies **infrastructural policies** were introduced. An infrastructure programme for the whole EU was developed with the aim to improve the **European transport infrastructure** through the coordinated support of **priority projects** funded by the ERDF and the Cohesion Fund. These investments should contribute to economic growth by **linking remote areas to the European centres**. Out of these aspirations the **TEN-T policy** and guidelines were developed and anchored in the Treaty of Maastricht. The existing **domestic networks** were to be **connected** and bottlenecks minimized. Several White Papers and Communications were produced that steadily developed the EU Transport Policy and its aims further (Dühr, Colomb, and Nadin 2010, 146).

The TEN-T **priority projects** were chosen in intergovernmental negotiations (ibid., 299). The **comprehensive and core TEN-T network**<sup>32</sup> introduced by the new TEN-T guidelines of 2013 was defined in a slightly different way. The European Commission made proposals for the change of the existing regulations supported by six **expert groups**. First, in a policy review the challenges of the old guidelines were analysed and a Green Paper of the Commission proposed some alternatives for the redevelopment of the European transport network. A **public consideration** led to the choice of one alternative. In a second step a method was developed to rationally design the core and comprehensive network. This process was accompanied by further public consultations and accepted by the transport ministers' informal meeting in 2011. The Commission finalised the proposal and the Council and Parliament adopted it in the co-decision procedure in 2013. The member states committed themselves to implement the core network until 2030. The earlier TEN-T network was much more shaped by national interests and priorities. Therefore investments often did not support the establishment of an interconnected network. An EU **comprehensive planning perspective** was missing. To avoid a repetition of these challenges, in the last process, the Commission was strongly supported by **experts** 

<sup>&</sup>lt;sup>32</sup> More detailed information on the TEN-T priority networks and the comprehensive and core network can be found in **chapter 5.2**.

that developed a transport and geographic planning approach based on the EU objectives of the Transport Policy. Furthermore, the public was strongly involved (Adelsberger 2012, 339).

#### Transport & TEN-T policy characteristics relevant for the policy implementation

In relation to the **implementation** the European Transport Policy can be regarded as a **framework** for the member states and their respective lower levels. They include, among others, standards, **guidelines** to be applied in transport and defined prioritized transport projects and networks. Based on this framework the member states develop their own policies and implement them into practice (ESPON 2004, 11). Besides that, the **member states** shall contribute to the **implementation** of the TEN-T network. The EU supports them financially and technically in this concern (Dühr, Colomb, and Nadin 2010, 299) in order to facilitate and accelerate the implementation. Details on the financial support in the two different funding periods are provided in **chapters 4.1.5** and **4.2.5**.

In theory it is differentiated further between positive integration, negative integration and coordinating policies. According to Bulmer and Radaelli the EU Transport Policy and TEN-T policy belong to the type of '**negative integration**' policies: Transport policy and TEN-policy are less regulative and restrictive when addressing the member states than e.g. the environmental policy which is assigned to belong to 'positive integration'. After the implementation of the policies the member states are expected to compete with each other and thereby amend their policies further (Bulmer and Radaelli 2004, 16). The amendment of the TEN-T policy with the definition of the concrete core transport network might have moved the policy from 'negative integration' at least to a certain degree to '**positive integration**' because it made the policy more concrete. Still the member states are not obliged to implementation among the member states is expected <u>not</u> to be very high.

The financial incentives connected to the implementation of the TEN-T policy lead to the assumption that the policy has certain elements of **facilitated coordination** as well. The priority projects and corridors contain cross-border sections which make it necessary that member states cooperate and coordinate their implementation. The newly introduced corridor forums (since 2014) are platforms of exchange and coordination which involve stakeholders from different administrative levels. The European Corridor Coordinators and working groups shall support the transport corridor development especially in the implementation of **cross-border transport projects** (European Parliament and Council of the European Union 2013e, 44). However, besides that, learning processes are not particularly facilitated by the TEN-T policy.

### 4.1.2 Fundamental aims of the European Transport and TEN-T Policies

A good transport system shall contribute to the **economic development** of the EU and to the **quality of life**. Without a good access to transport infrastructure and services the economic production is said to be hampered and the quality of life reduced. Therefore European Transport Policy shall coordinate, plan and regulate **long-term investments** (McGowan 2001, 218).

The establishment of the Trans-European Transport Networks (TEN-T) shall contribute to the realization and benefits of the **borderless** European territory. The EU shall foster the **linkage between the national transport networks**, their **interoperability** and **accessibility**. Territorially **disadvantaged regions** shall be integrated into the EU wide system and central areas (European Union 2012, 170). Thereby the TEN-T policy shall increase European **cohesion** and European **competitiveness**, two contradicting aims. The two rationales cannot easily be fulfilled at once (Peters

2003, 324; Robert et al. 2001, 142). With the relation to European cohesion the policy shows links to the European Cohesion Policy<sup>33</sup>.

In the European **Transport Policy** the aim to achieve European cohesion has only sometimes played a role. One example is the endeavour to improve the **accessibility of all regions**, especially of those in rural and peripheral areas and to **minimize the disparities** between different regions (McGowan 2001, 1; Dühr, Colomb, and Nadin 2010, 303). An enhanced **transport infrastructure** shall contribute to the accomplishment of this aim. In practice, however, European cohesion is said not to be treated as main focus and goal of European Transport Policy: it was taken into account rather marginally and not often implemented as a consensus on Member State level was difficult to reach (McGowan 2001, 227). So far, the priority projects funded by the EU focused on transport connections with a high demand to increase the **cost-benefit ratio**. Therefore, transport in remote, rural areas has rarely been promoted (Dühr, Colomb, and Nadin 2010, 305; Robert et al. 2001, 143).

The new TEN-T guidelines of 2013, underline that the TEN-T are supposed to contribute to establish missing-links and to abolish bottlenecks and thereby contribute to European cohesion (European Parliament and Council of the European Union 2013e, 4). However, it is criticized that the TEN-T programme supports the enhanced accessibility and **polycentricity at EU level**, but at the same time enlarges the disparities within the countries because of the expansion of primary corridors at the expense of the regions not linked to these corridors. Thereby the TEN-T is said to contradict the aim of the ESDP to contribute to a polycentric balanced development (Dühr, Colomb, and Nadin 2010, 306) as the contribution of the TEN-T investments in terms of accessibility are often limited to the direct surrounding of a **corridor**. Places farther away from the network did often not benefit much from the investments because secondary networks were missing which would have fostered transport connections at a lower scale (McGowan 2001, 234; Economic and Social Committee of the European Communities 1995, 16). Additionally, although a region might be covered by a TEN-T, it might not benefit when it is solely crossed and does not have an access point. On the contrary the region therefore might become less attractive (Economic and Social Committee of the European Communities 1995, 16). This is discussed controversially, other scientists think that these regions might benefit from the investments as well (Robert et al. 2001, 70). The investment in TEN-T might also have negative effects on social cohesion in terms of missing access and exclusion because of risen living costs in the vicinity of good transport infrastructures (Dühr, Colomb, and Nadin 2010, 306). To prevent a discrimination, however, the main transport network should contain several intersection points with secondary and tertiary transport networks (ibid., 304). The ESDP also advises to connect the TEN-T with secondary networks to improve the effect of the transport investments (Robert et al. 2001, 144).

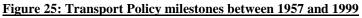
The European transport policy follows different aims that partially contradict each other. A balanced transport development is hard to reach because large-scale international links are often prioritized due to political and economic cost-benefit reasons (Peters 2003, 333).

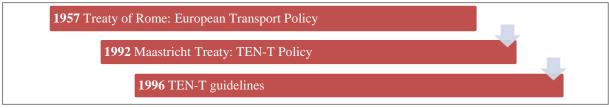
In the following, an overview on the development of European Transport Policy, its main policy documents and its objectives are presented. The focus is laid on transport policy documents which address cross-border transport.

### 4.1.3 EU transport policies from 1957 until 1999

This chapter presents the starting points of European Transport policy in 1957 and the development until 1999. It focuses on the most relevant policy documents for the Trans-European Transport Networks (see **Figure 25**).

<sup>&</sup>lt;sup>33</sup> More details on the Cohesion Policy can be found in **chapter 4.2**.





Source: Author, Kaiserslautern, 2017.

In **1957** the **Treaty of Rome** incorporated the decision to **establish a common transport policy**. This idea was to support the establishment of a common market and economic growth as well as a harmonious development of the EU territory (Council of the European Communities 1957, 3). Despite the announcement of the common policy not many results were identified in the first approximately 25 years. In 1985 the European Court of Justice identified a lack of implementation and urged the Council to lay down measures to implement the policy (Robert et al. 2001, 50).

At the beginning the EU policies on transport mainly focused on the establishment of common regulations concerning non-residential carriers and the transport across inner EU borders. In the end of the 1960ies aids for the implementation of projects with Community interest were proposed (Council of the European Communities 1968). Selected infrastructure projects with Community interest should get financial support (European Commission 1976). In 1978 **projects of European added value** were defined (Council of the European Communities 1978) and the number of projects grew continuously over the years. The aim was to contribute to the completion of the Single Market. Because of budget deficits the number of priority projects had to be reduced in 1989 (European Commission 1989, 15).

The White Paper on the completion of the internal market of 1985 defined actions for the Common Transport Policy to eliminate internal border barriers among the member states (European Commission 1985, 15). The main aim of the next White Paper of 2001 on the "future development of the common transport policy" (European Commission 2001b, 6) was to boost the European transport by removing legislation that hinders cross-border transport and the opening the inner European borders (ibid., 6).

In **1992**, the Maastricht Treaty introduced the **Trans-European Networks** (TEN) as a duty of the EU (European Union 1993, 129) which focuses on transport infrastructure. Thereby the EU positioned itself within a highly international economic competition and aimed at minimizing the growing disparities among the member states (ESPON 2004, 242). The TEN-T should ensure a wellfunctioning European transport system (European Union 1993, 129). For the first time it became possible to **plan** the transport infrastructure of the EU at EU level. Financial support was offered to the member states to implement the plans (European Commission 2001b, 6) in a coordinated way (Robert et al. 2001, 51). The concept of the TEN-T was the first spatial European strategy and came before the European Spatial Development Perspective (ESDP). Furthermore, it was the first large-scale infrastructure policy comprising the whole EU territory. The decision to establish the TEN-T was based on the rationale that the member states had to cooperate more and empower the EU to be globally more competitive (Peters 2003, 321). In the beginning the policy recommendations were only focused on the improvement of road infrastructures with the aim to contribute to the free movement of people and goods. Additionally, financing possibilities were proposed (Commission of the European Communities 1993). In 1994, 14 priority projects were defined at the Essen European Council to be funded in the framework of the TEN-T (European Commission 2005c, 6).

The first **guidelines on Trans-European Transport Networks** were established in **1996**. These guidelines involved also the other transport modes besides the road (European Parliament and Council of the European Union 1996, 3) reflecting the grown concern towards the environment (Robert et al. 2001, 52). Also interconnection points were defined which were essential for the transfer between

different transport modes (ibid., 52). The guidelines were **amended** three times (**2001/2004/2006**) and revised in 2010 and 2013<sup>34</sup>. They are meant as a general frame that describes the development and action possibilities to improve the network's consistency, interconnectedness, intermodality and accessibility. It shall encourage the member states to implement 'projects of common interest' that show a European added value. Besides that, the guidelines contain maps which illustrate necessary extensions and improvements because of bottlenecks and missing connections that interrupt the TEN-T (European Union 2012, 170; Robert et al. 2001, 56). Compared to earlier EU transport policy documents the TEN-T guidelines showed some innovations. They defined a **strategy** with the main aims, priorities and a general overview about possible actions <u>and</u> **planned** key infrastructure priority projects that constitute the network and shall be financially supported. The projects' implementation, however, was to be ensured by the concerned member states (Robert et al. 2001, 56).

## 4.1.4 EU transport policies influencing the funding period 2007-2013

In the following the objectives of the main policy documents (see **Figure 26**) influencing the funding period 2007-2013 are presented.





#### Source: Author, Kaiserslautern, 2017.

The White Paper "European Transport Policy for 2010 – Time to decide" of 2001 identifies challenges because of non-harmonized domestic development within the member states in terms of finances and social basics such as the

- unbalanced use of the different transport modes,
- traffic jams and inefficient bottlenecks in TEN-Ts,
- pollution of the environment,
- only a fifth of the TEN-T priority projects have been completed,
- in remote areas and accession countries the TEN-T is in a bad condition,
- lack of financial investments.

This situation is expected to exacerbate because of a predicted further growth of traffic (European Commission 2001b, 6). Therefore the White Paper's strategy aims until 2010 at improving the transport system. It shall become safer and Europe's interests in transport worldwide shall be strengthened. The European transport system shall get a higher quality and be more sustainable. Further **new technologies** shall be applied. User charges or tolls shall be used for new infrastructure constructions (ibid., 6). The White Paper proposes to **especially support cross-border projects** with a stronger financial contribution. Due to a lack of money, infrastructure investments should focus on projects that contribute to European **territorial cohesion** and projects that contribute to a **higher capacity** of the infrastructure and the removal of barriers (ibid., 6). In this context the White Paper calls for a common **strategy of different policy fields at EU and domestic level** (ibid., 12). It especially mentions the **Cohesion Policy** and the Structural Funds which shall contribute to the **connection between the TEN-T and secondary networks** (ibid., 15). An overview of the policies' aims can be found in **Table 6**.

<sup>&</sup>lt;sup>34</sup> See Decision No 1692/96/EC of the European Parliament and of the Council of 23 July 1996 on Community guidelines for the development of the trans-European transport network, Decision No 661/2010/EU of the European Parliament and of the Council of 7 July 2010 on Union guidelines for the development of the trans-European transport network and Regulation (EU) No 1315/2013 of the European Parliament and of the Council of 11 December 2013 on Union guidelines for the development of the trans-European transport network and repealing Decision No 661/2010/EU.

In 2004 the TEN-T guidelines<sup>35</sup> of 1996 were renewed. Because of traffic growth and related challenges, the guidelines focus on the further improvement of mobility based on the White Paper's points (higher capacity, avoid jams, alternative transport modes, safety, intelligent infrastructure). It is called to improve the connectivity of the different transport modes. Also EU accession candidates shall be better connected to the main networks. New aspects are the introduction of environmental assessments for transport projects and joint evaluations of transnational projects. Furthermore, the motorways of the sea should be added to the network and promoted as important transport mode for remote areas to relieve roads and the environment and improve the accessibility also in terms of freight (European Parliament and Council of the European Union 2004, preamble). Another innovation is the possibility to designate European Coordinators to coordinate and support a project implementation or the development of a whole TEN-T corridor if necessary (ibid., 17). Additionally, the document calls for a revision of the **priority projects** and defines their character. The list of priority projects was extended to 30 projects (European Commission 2005c, 6; European Parliament and Council of the European Union 2004, 2). Their completion in due time was demanded. Additionally, a comprehensive network was introduced which contained planned tracks to be established (Commission of the European Communities 2009a, 5). The time horizon until the completion of the Trans-European Transport Network was prolonged for 10 years until 2020 (European Parliament and Council of the European Union 2004, 2). The concentration of TEN-Ts on the most important connections and on cross-border sections respectively naturally disadvantaged regions is underlined again (ibid., 5). Additionally, it is proposed that the TEN-T regulation should be coordinated with the Structural Funds and the **Cohesion Fund** to effectively contribute to European Cohesion. Additionally, the member states should coordinate their projects in closer cooperation (ibid., preamble).

In 2006 the Mid-term review- Keep Europe moving - Sustainable mobility for our continent of the White Paper of 2001 addresses the earlier goals of an accessible transport system especially for remote areas, high mobility, environmental protection, intelligent transport and multimodality (European Commission 2006a, 3) and the effects of the EU accession in 2004 (higher variety of challenges and needs). Further aims are the reduction of energy, common research projects in the fields of energy and transport and the minimization of  $CO_2$  emissions. Additionally, cross-border transport services shall be expanded by removing technical barriers. Furthermore, urban transport shall be improved. The review argued that the EU regulations and instruments needed to be extended to achieve the aims of the Transport Policy (ibid., 6). Among others, the exchange of transport practices is said to need to be fostered more between the member states (ibid., 4). Furthermore, new financial instruments shall be developed besides the external usage of the Cohesion and Structural funds (ibid., 9). Other concerns were that the European Transport Policy needs to react on globalisation effects and strategies of international and European relevance (e.g. the Kyoto Protocol, the European Energy Policy) and safety. The review introduces a time frame between 20 and 40 years which should be taken into account when designing new transport instruments (ibid., 7).

**Table 6** gives an overview of the main objectives of the three policy documents. Although they were quite similar, focal points exist. The improvement of cross-border infrastructures was mentioned in all three policy documents, whereas the improvement of cross-border services was named only once. Additionally, only the White Paper of 2001 considered the linking of the TEN-T and secondary networks as an important field of action. All three policies promoted the support of a balanced development by addressing the need to better integrate remote areas into the European transport network. The exchange of practices is solely named by the Mid-term review.

<sup>&</sup>lt;sup>35</sup> More information on the concrete policy objectives can be found in **Table 6**.

	White		Mid-term	
Objectives	Paper	guideline	es review	Sum
	2001	2004	2006	
Transport infrastructure network	1	1	1	3
Remove barriers, improve efficiency	1	1	1	3
Linking TEN-T and secondary networks	1			1
Relieve routes/fighting congestion	1	1	1	3
Intermodality/interoperability		1	1	2
Intelligent transport systems		1	1	2
Freight corridors		1		1
New technologies/innovations (research)	1		1	2
Improving mobility of freight		1		1
Improving mobility of passengers	1	1	1	3
Accessibility of remote areas	1	1	1	3
Connecting neighbouring/new member states	1	1		2
Cross-border infrastructures	1	1	1	3
User-friendliness	1			1
Transport services	1		1	2
(Urban) public and soft mobility	1		1	2
Transport safety	1	1	1	3
Cross-border services			1	1
Environmental and sustainability issues	1	1	1	3
Alternative modes of transport	1	1	1	3
Alternative fuels/climate change				0
Minimising environmental harm	1	1	1	3
Sustainable transport	1	1	1	3
Exchange of practices/better coordination			1	1

Table 6: Objectives of the Trans	port Policy documents from 2001-2006

Source: Author, Kaiserslautern, 2017, based on ibid.; European Parliament and Council of the European Union 2004 and European Commission 2001b.

## 4.1.5 EU financial support 2007-2013

As transport is an important issue for the EU, it offers several funding opportunities. They are described shortly in the following.

Until 2013 the *TEN-T Programme* supported projects of common interest of the EU that showed a special long-term value added for the European transport and brought socio-economic advantages. These projects had to focus on predefined objectives such as the removal of bottlenecks, **especially in cross-border areas**; the facilitation of the mobility of people and goods and of interoperability; the improvement of linkages to the transport networks of the new EU member states and to spatially **disadvantaged regions** or the contribution to a higher transport safety and **lower environmental harm**. Additionally, the projects needed to be economically **viable** and concern parts of the defined Trans-European Transport Network (European Parliament and Council of the European Union 2010, 7). Between 2007 and 2013 **8 billion Euro** were to be spent (European Parliament 2014, 2).

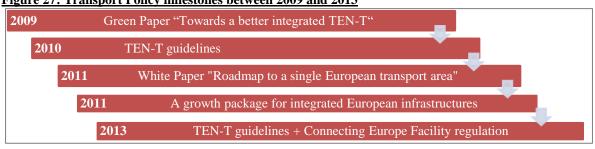
The *Marco Polo Programme* was a financing instrument solely dedicated to European freight transport. It aimed at reducing **freight transport** on the road and shifting it to other transport modes (European Parliament and Council of the European Union 2006b, 1). Projects needed to focus on certain predefined topics in order to be eligible for funding: the better utilization of existing infrastructure in rail, sea and inland waterways; shifts of road transport to sea transport or **other transport modes**; projects that integrated transport into production logistics and avoided long road transport or stimulated exchanges of knowledge in the optimization of the freight transport chain. Annual calls for projects concretized the priorities (ibid., 5). The Marco Polo Programme spent **450 million Euro** between 2007 and 2013 (European Commission 2013a, 2).

The *Seventh Framework Programme* funded transnational **research projects** in transport between 2007 and 2013 (European Parliament and Council of the European Union 2006a, 2).

The *Cohesion Fund* - belonging to the Cohesion Policy<sup>36</sup> - has co-financed transport infrastructure developments and thereby **contributed** to the fulfilment of the Transport Policy objectives (Dühr, Colomb, and Nadin 2010, 146). It was used for transport projects which contribute to a more balanced development by diminishing territorial disparities. It only supported regions lagging economically behind (Commission of the European Communities 2009a, 4). In the funding period 2007-2013 the Cohesion Fund supported the TEN-T with **43 billion Euro** (European Parliament 2014, 3).

## 4.1.6 EU policies influencing the funding period 2014-2020

The following section presents the Transport Policy documents that were published during the last funding period and potentially influenced the current funding period from 2014-2020 (see **Figure 27**). At the end of the chapter other EU strategies which addressed the TEN-T are shortly presented.



#### Figure 27: Transport Policy milestones between 2009 and 2013

Source: Author, Kaiserslautern, 2017.

The Green Paper "TEN-T: A policy review – Towards a better integrated Transeuropean Transport Network at the service of the common Transport Policy" of 2009 reviews the previous TEN-T policy, proposes changes and clarifies the tasks of the TEN-T policy. According to the document the TEN-T should support the aims of the European Transport Policy by making the services more effective, providing the innovative and integrative infrastructure needed, making it more accessible and by **updating** it according to research innovations. In this respect it shall contribute to the European Single Market, European Cohesion and the Lisbon Agenda. Additionally, it shall promote a sustainable and environmental friendly development (Commission of the European Communities 2009a, 2). It criticized that the TEN-T projects tended to be of long-lasting nature and could often not be completed in their original time schedule. It proposed to fundamentally review and update the whole policy to make the results more tangible and react on current and future challenges. Aspects which needed to be clarified, concerned, among others, the added value of transport planning on EU level. The Green Paper proposed to **expand the insufficient instruments of implementation** as the final implementation of projects was strongly dependent on the responsible Member State and its political agenda (ibid., 5). The TEN-T should contribute to the economic competitiveness of the EU and the connection to the worldwide network. Additionally, climate protection should be enhanced (ibid., 3). The green paper proposed three options for the further development of the TEN-T:

- Keep the two-level structure with the priority projects and the comprehensive network
- Reduce the TEN-T to one layer that consists of priority projects that could be integrated into a priority network
- New two-level structure consisting of a **comprehensive network and a core network**. The latter would consist of a priority network and a conceptual pillar that shall integrate the transport concepts and strategies into the infrastructure development.

<sup>&</sup>lt;sup>36</sup> More information on the Cohesion Policy can be found in **chapter 4.2**.

The Green Paper was published to open-up a discussion among European actors and asked for active contribution to the discussion as preparation for the coming legislative proposals (ibid., 3).

The **Decision No 661/2010/EU** "on Union guidelines for the development of the trans-European network" of 2010 regulated the recast of the TEN-T guidelines. The guidelines defined the aims, priorities and the general framework for the support of TEN-T projects and (re-)defined the priority projects. The decision repeats earlier objectives to be very relevant for the TEN-T like accessibility and interconnectedness on the whole EU territory and beyond, interoperability, environmental friendliness, safety, and the avoidance of congestions. Priority projects shall still focus on bottlenecks especially in cross-border sections to improve long-distance traffic (European Parliament and Council of the European Union 2010, preamble). Their list was to be updated in 2010 (ibid., preamble). The document warned that the integration of the domestic transport networks would be a long lasting process and needed time until all modes of transport were linked and benefits were perceivable. Still, it repeated the call to complete the TEN-T until 2020 (European Parliament and Council of the European Union 2010, 1, 2010, 1). The new guidelines defined actions which could be conducted at EU level in the field of TEN-T. Such as

- the making and redrawing of network plans,
- defining priority projects and projects of European interest,
- fostering interoperability,
- establishing intermodal hubs,
- ensuring the coherence of all EU transport funding instruments,
- conducting research and development projects in the field of transport,
- cooperating with non-EU member states,
- creating incentives for the implementation of the EU aims and

• supporting transnational cooperation (European Parliament and Council of the European Union 2010, 4). Furthermore, it obliged the member states to transmit the European Commission their domestic plans and programmes that influenced the TEN-T development (ibid., 20). The monitoring of the TEN-T implementation by the European Commission was introduced and delays had to be explained (ibid., 22). Additionally, the guidelines increased their linkages to the Cohesion Policy: the **TEN-T guidelines** should be aligned to the **programming documents** of the **funds** of **European Cohesion Policy** (ibid., preamble). Projects defined to be of European interest should be treated preferentially in the designation of funding programmes, especially the Cohesion Fund, the TEN-T fund, the Structural Funds and IPA (ibid., 25). Additionally, the **private sector** should be involved stronger in the implementation process (ibid., preamble).

The White Paper of 2011 "Roadmap to a single European transport area: towards a competitive and resource-efficient transport system" developed a strategy to link the most important points on the European territory (Marshall 2014, 5). It promotes a stronger resource efficient and more environmentally friendly transport system. The transport system is seen as important element of the European economy and society. To ensure its effectiveness and sustainability international cooperation is needed. Regenerative fuels shall be used more and the  $CO_2$  emissions shall be minimized. The territorial differences between Eastern and Western Europe in the transport infrastructure should be minimized and the networks should be linked better. A new approach on the financing and pricing of infrastructure projects was demanded (European Commission 2011c, 3). As new tasks, jobs and working conditions in the transport sector needed to be created and improved. Information about (new) transport services were to be made available. Especially in the urban dense context land-use planning should be in line with transport planning. It is proposed to regulate the height of road charges EU-wide (ibid., 10). The EU should establish special freight transport corridors with low energy consumption and low emissions (ibid., 5). Public transport with environmental friendly vehicles should be increased (ibid., 5). The White Paper promoted the implementation of a European 'core **network' corridors** that connected the most important urban hubs of the EU, sea- and airports and **border towns**. It should merely **focus on incomplete border sections** and **bottlenecks**, the creation of multi-modal terminals and the connection between the **transport modes** (ibid., 13). New implementation deadlines were defined: the core network was to be implemented until 2030 (ibid., 10). In addition, a **comprehensive European transport network** was to be established instead of the earlier patchwork-priority projects approach. The White Paper underlined the importance of the adoption of a **common vision** and **common policies** by the member states so that investors can make their plans (ibid., 5). The White Paper also pointed at the **coordination of** the different **funds** for transport projects (ibid., 14). The document concluded that the establishment of the European sustainable transport system needed to be based on **initiatives on several administrative levels that complement** each other. The appendix contained a list of initiatives that summarized and concretized the roadmap (ibid., 17).

The Communication of the European Commission of 2011 "A growth package for integrated European infrastructures" called for infrastructure investments that urgently needed to be done after the economic crisis. The infrastructure needed to be innovated, its components needed to be linked better to contribute to the integrated Single Market, economic growth and European Cohesion. This process needed to be accelerated. The communication proposed a new 'infrastructure package' which contained new guidelines in the field of transport and the financial instrument 'Connecting Europe Facility'. It defined that the main investments were be made by the member states themselves, however, to the reach the aims of the Europe 2020 Strategy in time, the EU announced to support the development by financial assistance and instruments. The EU contribution was said to be focused on the reduction of market fragmentation, improvement of security issues, economic growth, the creation of jobs and socio-economic added value that could not be achieved on lower project level. The establishment of the Connecting Europe Facility that takes care of all three infrastructure components was to create synergy effects and save administrational costs (European Commission 2011a, 1). The communication criticized the missing integration of the domestic transport infrastructures within the EU especially **cross-border sections** needed to be improved. Furthermore, the European transport system needed to gain a higher interoperability and resource efficiency. The coordination between the member states needed to be improved in terms of project management and planning, as well as financing. It was defined that the Connecting Europe Facility (CEF) should finance border sections and bottlenecks that interrupt the European transport network (ibid., 2). Additionally, the financial support was to contribute to the accomplishment of the Europe 2020 Strategy-aims like the reduction of  $CO_2$ emissions and resource efficiency (ibid., 5). Additionally, the communication informed that the CEF, organized by a committee, would develop annual financing programmes and evaluation indicators which should motivate the member states and their markets to invest in the European infrastructure. The CEF was to be coordinated with other strategies and EU funds (ibid., 5). Furthermore, the communication referred to the new TEN-T guidelines which were to be established in 2013 as basis for the further development of the Single European transport area.<sup>37</sup>

The **TEN-T guidelines** of **2013** were established as a reaction on the previously described White Paper and Communication. They contain more **details and information** than the previous TEN-T guidelines (European Parliament and Council of the European Union 2013e). An example is the definition of priorities and requirements for each transport mode within the comprehensive network (ibid., 11). This degree of accuracy shall make it **easier to implement** projects. Furthermore, the guidelines tend to have a stronger and more **restricted focus on eligible topics** to concentrate financing. Additionally, the EU policies strongly focus on the fulfilment of the goals of the **Europe 2020 strategy** (European Commission 2014a). The new **"dual-layer"** (European Parliament and Council of the European Union

<sup>&</sup>lt;sup>37</sup> The document goes into further details of the future TEN-T regulation which will be presented in the description of the TEN-T regulation of 2013.

2013e, 6) structure of the TEN-T consisting of a core transport network, with multimodal transport corridors, to be established until 2030 and a comprehensive network, to be finalised until 2050 was introduced (ibid., 6). The core network shall consist of the strategically most important routes and concentrates on the main bottlenecks, multimodal nodes and cross-border linkages. Nine core transport corridors were defined that cover the longest transport routes within the EU territory to improve the connectivity of the EU (ibid., 43). The corridors need to contain at least three different transport modes and cross at least two national borders i.e. involve at least three countries. The corridors were predefined in the annexes of the guidelines (Adelsberger 2012, 339). To facilitate the implementation of the core network corridors European corridor coordinators were introduced to support the development. They were to be assisted by consultative corridor forums, working groups and a secretariat. The coordinators were asked to set up work plans for the further development (European Parliament and Council of the European Union 2013e, no. 43). Furthermore, the core network, which links important transport nodes (e.g. cities and ports) and connects neighbouring countries to the EU territory, had to meet special requirements and be more efficient (ibid., 38). The comprehensive network comprised the whole trans-European transport network. With its implementation all infrastructures should be consistent with the guidelines (ibid., 6). Measures to ensure the implementation of both layers in 2030 respectively 2050 were introduced (review after 10 years, justification for delays). Additionally, the regulation defined new common provisions on freight services, innovations, safety, climate change, environmental concerns and urban transport (ibid., 32). Thereby the document repeated some earlier focuses but also called the member states' attention on current trends and clarifies how to cope with them. The new aims of the TEN-T network did not include the increase of the **competitiveness** of the EU anymore<sup>38</sup> (ibid., 4).

The regulation on the **Connecting Europe Facility** of **2013** laid down the funding requirements of the TEN-T. According to the regulation the TEN-T should support **cross-border connections** and **missing links**. Especially the 'cross-border sections' of the TEN-T transport corridors should be funded within the limits of the space between the **closest urban nodes at two sides of a border**. All cross-border sections of the core network corridors should be supported to ensure the continuity of European transport routes (ibid., 3). Despite lower direct economic effects for the individual member states, these sections should be prioritized (ibid., 21). Transport should become more **efficient** and contribute to the overarching aims of the Europe 2020 Strategy and European Cohesion. Additionally, the effects of **climate change** were to be minimized. Furthermore, the **sustainability** should be enlarged and the **interoperability** especially for **alternative transport modes** was to be improved. Further fields of support are **safety**, passenger and freight **transport services** and **accessibility** (European Parliament and Council of the European Union 2013f, 3).

The overview on the Transport Policy documents' objectives, developed between 2009 and 2013, shows that many objectives were repeated consistently over time. The improvement of cross-border sections, again, is a very important issue. The linkage of the TEN-T with secondary networks as well as the improvement of cross-border services, however, belong to the few topics that are only named by the White Paper of 2011 and the current TEN-T guidelines of 2013. Both documents are very comprehensive and contain all objectives with one exception. Compared to the earlier TEN-T guidelines the new guidelines contain more aims because they are more precise in their descriptions.

<sup>&</sup>lt;sup>38</sup> See Decision No 661/2010/EU of the European Parliament and of the Council of 7 July 2010 on Union guidelines for the development of the trans-European transport network art.2 para.2a and Decision No 1692/96/EC of the European Parliament and of the Council of 23 July 1996 on Community guidelines for the development of the trans-European transport network art.2 para.2a.

Thus, cross-border transport promoted in the Transport and TEN-T Policy before the second funding period (2014-2020) is strongly focused on cross-border large scale infrastructures and much less on residual cross-border infrastructures and cross-border services.

Objectives	Green Paper 2009	TEN- T 2010	White Paper 2011	Growth Pack. 2011	TEN- T 2013	CEF 2013	Sum
Transport infrastructure network	1	1	1	1	1	1	6
Remove barriers, improve efficiency	1	1	1	1	1	1	6
Linking TEN-T and secondary networks			1				1
Relieve routes/fighting congestion		1	1		1		3
Intermodality/interoperability	1	1	1	1	1	1	6
Intelligent transport systems			1		1		2
Freight corridors			1		1		2
New technologies/innovations (research)	1	1	1		1	1	5
Improving mobility of freight	1	1	1	1	1	1	6
Improving mobility of passengers	1	1	1	1	1	1	6
Accessibility of remote areas	1	1	1	1	1	1	6
Connecting neighbouring/new member states	1	1	1	1	1		5
Cross-border infrastructures	1	1	1	1	1	1	6
User-friendliness	1		1		1		3
Transport services	1	1	1	1	1	1	6
(Urban) public and soft mobility			1		1		2
Transport safety	1	1	1	1	1	1	6
Cross-border services			1		1		2
Environmental and sustainability issues	1	1	1	1	1	1	6
Alternative modes of transport		1	1		1	1	4
Alternative fuels/climate change	1		1	1	1	1	5
Minimising environmental harm	1	1	1	1	1		5
Sustainable transport	1	1	1	1	1	1	6
Transport infrastructure network				1	1		2

Table 7: Objectives of the Transport Policy documents from 2009-2013

Source: Author, Kaiserslautern, 2017, based on European Parliament and Council of the European Union 2013e; European Commission 2011a; European Commission 2011c; European Parliament and Council of the European Union 2013f, 2010; Commission of the European Communities 2009a

Besides the pure Transport Policy documents other EU strategies addressed the TEN-T such as the **Territorial Agenda** (TA) of **2007**. It emphasized the importance of **Trans-European Networks** and promoted their extension (Informal Council of Ministers responsible for Spatial Planning 2007, 8). Besides that, the TA argues for the importance of a **balanced development** but also **economic competiveness**. The offer of a high **infrastructure accessibility** is one of its main aims. **Multi-modality, alternative transport modes** in passenger and freight transport and the connection to **secondary networks** shall be supported. Furthermore, **cross-border sections** in terms of **infrastructure** and **services** are said to be very important. **Cooperation** between border regions and cities is supported especially in the **share of public services**. **European Territorial Cooperation** is described as innovative instrument which shall contribute to territorial cohesion (ibid., 1). Additionally, it called for a better **coordination** with the residual EU policies which influence the European territory (Informal Council of Ministers responsible for Spatial Planning 2007, 4, 2011, 8).

The Europe 2020 Strategy of 2010 called upon the member states to contribute to the implementation of infrastructure projects that improve the efficiency of the European core transport system. Furthermore, the accessibility of enterprises to the European Single Market and international markets irrespective of their location was to be improved. For this purpose transport networks and modal nodes needed to be established and expanded. Besides that, European transport shall be based stronger on renewable energies, lower energy consumption, intelligent traffic management, improved logistics,

**innovations** and common **standards** to contribute to the field of **climate change** and **energy** and **sustainable growth**. Therefore the member states should **upgrade** and **link the domestic transport infrastructures**. The **cross-border transport** development should be coordinated better and a good **accessibility** should be ensured. **Congestions** in **cities** should be operated against (European Commission and INEA 2013, 2ff.). The Commission additionally announced to develop a new **financial concept** to ensure the implementation of important infrastructure projects and the achievement of the EU 2020 Strategy aims (European Commission 2010, 19).

Furthermore, the **Territorial Agenda 2020** of **2011** promoted the further development of the **TEN-T** <u>and</u> their **linkage to secondary networks**. Additionally, **remote areas** should be integrated (Informal Council of Ministers responsible for Spatial Planning 2011, 8). The accessibility shall be increased. **Policy coordination** between the countries involved is said to be important. Mobility and accessibility are said to be very important for cohesion. Therefore **transport connections** shall be improved. **Intermodal** and **alternative modes** of transport shall be fostered. Also **international transport** shall be enhanced (ibid., 3).

The three examples show that also other policy fields promoted the TEN-T and cross-border transport in order to contribute to their implementation and efficient usage of their potentials.

## 4.1.7 EU financial support 2014-2020

The new funding period (2014-2020) brought many amendments of relevant regulations, for the Trans-European Transport Networks (TEN-T). The TEN-T guidelines and the Connecting Europe Facility (CEF) regulation laid down the **funding requirements** that need to be met by projects (Innovation and Networks Executive Agency 2016g).

A new **multi-annual funding instrument**, the *Connecting Europe Facility* (CEF), was introduced which should improve and secure the financing of the implementation of the TEN (European Commission 2011a, 6). The European Commission is supported by the 'Innovation and Networks Executive Agency' (INEA) which centrally manages the CEF and thereby the allocation of funds and implementation of TEN-T projects (Innovation and Networks Executive Agency 2016g). **Annual** and **multiannual** work programmes are developed which decide about the budget available, thematic objectives and eligibility criteria for the **calls**. The Commission and the agency will evaluate and select the projects. Additionally, they monitor the implementation of the programme. The member states have to adopt the chosen projects (European Commission 2014c, 9; DG Move 2014). The regulation on the Connecting Europe Facility additionally provides **output indicators** to measure the benefits of the projects (European Parliament and Council of the European Union 2013f, 4)

The CEF mainly finances investments in the TEN-T core network defined in the Annex of the TEN-T regulation. Also projects being part of the comprehensive network can be funded in special cases – among others, when they **connect core network corridors** or concern **cross-border sections**. The latter are to be funded within the TEN-T to favoured conditions (Adelsberger 2012, 339).

In this funding period (2014-2020) the EU has offered three times more money for transport projects than in the previous funding period (2007-2013): **26,250 billion Euro** are available (European Commission 2014b, 2). This new financing instrument consolidates the former TEN-T and Marco Polo (II) Programmes. The budget contains partial support of the *Cohesion Fund* (Adelsberger 2012, 339) in the height of **11,305 billion Euro** (European Parliament 2014, 3). Particularly in the field of crossborder infrastructure, the CEF funds shall be coordinated better with the residual European funding programmes (European Parliament and Council of the European Union 2013f, preamble). 80% of the

Transport Policy's funds, available from CEF and Cohesion Fund,<sup>39</sup> are dedicated to contribute to the removal of bottlenecks, rail interoperability, the establishment of missing-links and the support cross-border connections (ibid., Annex I Part IV).

The *Horizon 2020 Programme* that replaced the Seventh Framework Programme will again fund research projects in the field of transport under the title "Societal challenges - smart green and integrated transport" (European Commission 2014e).

Since 2014 the *Cohesion Fund* clearly differentiates between its support for the TEN-T projects (10 billion euro) (European Parliament and Council of the European Union 2013b, 3) and other support that is dedicated to the field of transport. In the latter case projects shall make transport more **sustainable** and **remove bottlenecks** (ibid., 4).

## 4.1.8 Development of transport policy objectives over the years

**Table 8** gives an overview over the development of the Transport Policy objectives in the policy documents produced between 2001 and 2013. It can be seen that most thematic objectives which have been very important in the first time period, stayed important in the second period as well. This also concerns the **enhancement of cross-border infrastructures**. It will be analysed further how this objective has been implemented in practice (see **chapter 6**).

The **linkage of the main transport network to secondary networks** was promoted less than in the first funding period. This objective and the improvement of **cross-border services** were mentioned generally rarely by the EU Transport Policy documents. Thus, the focus of the EU Transport Policy primarily lies on **large scale cross-border infrastructures**. Objectives connected to climate change have only been brought up in the policy documents for the second funding period which might be a sign for a political spillover. Freight mobility as well as transport services, in general, however, have grown in importance compared to the first time period and are now decisive topics.

If you compare the challenges detected in earlier analyses and the amendments in the EU policy documents of the second funding period there are several fields where the new policy documents tried to improve the conditions to establish a European common transport system. A positive aspect is that the new guidelines contain more **details and information** which makes it more probable that the member states implement the EU policies **in a similar way**. Furthermore, new **measures** were introduced that try to safeguard the implementation without **delays**. The new financing instrument CEF needs to prove its efficiency in the future. A higher coordination between the Cohesion fund and the CEF seems to have been reached. At least it is mentioned frequently. Thereby the funds might complement each other, especially in the regions lagging economically behind which are eligible for the Cohesion fund.

Another positive effect of the new legislative package is the **interconnectedness** of the different policies in place - they frequently refer to each other. Besides that, all policies shall contribute to the Europe 2020 Strategy aims which might increase the possibility to meet the goals. However, the strategy solely promotes enhancements of the core network and does neither aim at improving the residual cross-border transport infrastructures and service connections nor the linkage of the core network with the residual network which is potentially more relevant for the transport within cross-border regions. Additionally, it remains to be seen how the new EU policies will be implemented in practice.

<sup>&</sup>lt;sup>39</sup> The Cohesion Fund is solely dedicated to the Core Network (European Commission 2014b, 8).

				Dicy 2001-2013 Funding period 2014-2020							Both FPs	
Objectives	WP 2001	TEN- T 2004	MTR 2006	%	GP 2009	TEN- T 2010	WP 2011	GrP 2011	TEN- T 2013	CEF 2013	% since 2009	% total
Transport infrastructure network	1	1	1	100	1	1	1	1	1	1	100	100
Remove barriers, improve efficiency	1	1	1	100	1	1	1	1	1	1	100	100
Linking TEN-T and secondary networks	1			33			1				17	22
Relieve routes/fighting congestion	1	1	1	100		1	1		1		50	67
Intermodality/inter- operability		1	1	67	1	1	1	1	1	1	100	89
Intelligent transport systems		1	1	67			1		1		33	44
Freight corridors		1		33			1		1		33	33
New technologies/ innovations (research)	1		1	67	1	1	1		1	1	83	78
Improving mobility of freight		1		33	1	1	1	1	1	1	100	78
Improving mobility of passengers	1	1	1	100	1	1	1	1	1	1	100	100
Accessibility of remote areas	1	1	1	100	1	1	1	1	1	1	100	100
Connecting neighbouring/new member states	1	1		67	1	1	1	1	1		83	78
Cross-border infrastructures	1	1	1	100	1	1	1	1	1	1	100	100
User-friendliness	1			33	1		1		1		50	44
Transport services	1		1	67	1	1	1	1	1	1	100	89
(Urban) public and soft mobility	1		1	67			1		1		33	44
Transport safety	1	1	1	100	1	1	1	1	1	1	100	100
Cross-border services			1	33			1		1		33	33
Environmental and sustainability issues	1	1	1	100	1	1	1	1	1	1	100	100
Alternative modes of transport	1	1	1	100		1	1		1	1	67	78
Alternative fuels/climate change				0	1		1	1	1	1	83	56
Minimising environmental harm	1	1	1	100	1	1	1	1	1		83	89
Sustainable transport	1	1	1	100	1	1	1	1	1	1	100	100
Transport infrastructure network			1	33				1	1		33	33

Table 8: Overview of the objectives of Transport Policy 2001-2013

Source: Author, Kaiserslautern, 2017, based on the named policy documents.

## 4.2 European Cohesion Policy and European Territorial Cooperation

The European Cohesion Policy determines the general framework of European Territorial Cooperation but is in itself **influenced by other policy fields**, such as transport, on diverse multi-level political agendas as are the decisions for predefined cooperation issues (Guasco 2015, 41) (see Europeanisation in **chapter 2.2**). Therefore the EU Cohesion Policy is not a sectoral European policy but a **territorial** policy (Robert et al. 2001, 148).

## 4.2.1 Cohesion Policy making & policy characteristics

#### Cohesion and ETC Policy making

European Cohesion Policy is characterized by Bartolini as an element of social sharing within the EU as the policy aims at commonly complete the **single market** and to **minimize the regional disparities** (Bartolini 2009, 229). The Cohesion Policy distributes EU resources on the territory and influences the development of the European space (Dühr, Colomb, and Nadin 2010, 270). The funds are redistributive and spent for **territorial disadvantaged** units, among others, European border regions and those lagging economically behind (European Commission 2015a). There is an uneven in- and output of funds of the member states which is a unique feature of the policy (Bartolini 2009, 230; Dühr, Colomb, and Nadin 2010, 278).

ETC, as part of the Cohesion Policy, is defined in the Lisbon Treaty as shared competence between the supranational and national levels (Kohler-Koch 2002, 1). The Cohesion and ETC Policy are developed in **supranational decision making** procedures (Dühr, Colomb, and Nadin 2010, 146) between the European Council and the European Parliament. Decisions are mostly based on **qualified majority voting**. Changes or new policies such as new **regulatory packages** for the **Cohesion Policy** and its **funds** consisting of several regulations for the six years of funding are initiated by the European Commission. The regulations contain funding priorities, eligibility criteria, principles and other general rules (Peters 2003, 321; Dühr, Colomb, and Nadin 2010, 146).

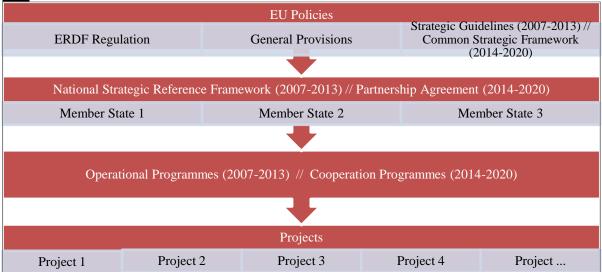


Figure 28: Policy implementation procedures in European Territorial Cooperation 2007-2013 and 2014-2020

Source: Author, Kaiserslautern 2017, based on European Parliament and Council of the European Union 2006c and European Parliament and Council of the European Union 2013a, 2013c, 2013d.

As can be seen in **Figure 28**, based on these EU regulations, the member states develop in partnership with the Commission and subnational actors **national strategic framework plans** (2007-2013) – or so-called **partnership agreements** in the current funding period (2014-2020) - which define the countries' strategy for the coming funding period. The documents present, among others, the countries' challenges and opportunities, information about the national operational programmes and allocation of funds (European Parliament and Council of the European Union 2013d, 14; European Union 2006, 27). They shall define the domestic 'territorial needs' on which the use of the EU funds shall be focused. These needs are dependent on the interpretation of each member state and influence the countries' orientation towards territorial development (Atkinson and Zimmermann 2018, 20). Based on these plans or agreements, **Operational or Cooperation Programmes** are defined for different territorial (crossborder) units. These develop a comprehensive development strategy and strategic priorities and

objectives which shall be implemented by financially supported projects. The programmes have to be approved by the European Commission (Dühr, Colomb, and Nadin 2010, 279). The member states involved have to commit themselves to co-finance the chosen projects (European Parliament and Council of the European Union 2013a, 8).

At the European Commission the Directorate General (DG) REGIO is responsible for this policy field (Peters 2003, 321; Dühr, Colomb, and Nadin 2010, 146). The Council and the Parliament decide about the budget proposed of the Commission (Dühr, Colomb, and Nadin 2010, 279). Allen argues that the member states have been very powerful in shaping the Cohesion Policy: besides the Commission's influence in the designation of the priorities, the development of the policies was influenced strongly by the member states (Allen 2010, 229). Although the EU depends on the member states' implementation of its policies it decides about **requirements** of the **implementation process** (Perkmann 2007b, 864).

The Cohesion Policy is equipped with the so called **,European Structural and Investment Funds**<sup>40</sup> that support particularly disadvantaged territories with a low level of GDP/head and persons (Bartolini 2009, 229). The EU funds only complement domestic investments and thus **'co-fund'** projects. They never finance a project to 100% (Bartolini 2009, 230; Dühr, Colomb, and Nadin 2010, 278). The competences for the structuring and implementation of the European Structural and Investment Funds are shared by the EU level with subnational administrative levels. The funds are allocated to the priority objectives, that are decided upon on transnational and European level **multi-annually** (currently one period lasts six years) in the Operational and Cooperation Programmes. Thereby the funds are spent in a coordinated transnational manner (Dühr, Colomb, and Nadin 2010, 278; Bartolini 2009, 230). For each funding multi-annual period the member states define the EU overall **budget** and the amount of financial means that are **dedicated to** the Cohesion Policy and its priority objectives (Dühr, Colomb, and Nadin 2010, 279). The funds substantially grew over time in parallel to the accession of new member states and the enlargement of further disparities (ibid., 271).

As the programmes are developed in a partnership of different actors and enlarges the importance of the subnational as well as supranational levels, the policy is considered to be a vivid example of **multi-level** governance in the EU (see **chapter 2.1.2**)(Piattoni 2010, 102; Allen 2010, 250).

#### Cohesion & ETC policy characteristics relevant for the policy implementation

The ETC policy and programme objectives are implemented in a cooperation of the transnational, national and subnational administrative levels and non-administrative actors (**partnership** principle). The implementation of the Operational and Cooperation Programmes supranational predefined political objectives has to be ensured by the member states and their subnational levels (Dühr, Colomb, and Nadin 2010, 278f.; Bartolini 2009, 230). They offer EU **financial incentives** for cross-border cooperation projects which contribute to the objectives (Guasco 2015, 41; Millan 1994, 21). Thereby the ETC Policy offers platforms for policy transfer (see **chapter 2.4.1**): projects in several policy fields, among others, transport, if defined as a priority objective, are developed in which actors from different countries can exchange their experiences, mutually learn from each other (Timms 2011, 521). Guasco sees the **incentives as an indirect pressure** on subnational actors to implement EU objectives and as an **impetus** for the development of new policy documents at subnational level particularly influence the choice of projects to be funded (Bartolini 2009, 230; Dühr, Colomb, and Nadin 2010, 278). The European Commission monitors the policy implementation process (Dühr, Colomb, and Nadin 2010, 279).

As already stated in **chapter 4.1.1** it is relevant to classify the type of policy whose influence is to be analysed, differentiating between positive integration, negative integration and coordinating policies.

<sup>&</sup>lt;sup>40</sup> Until 2013 they were called 'Structural Funds'.

Kohler-Koch argues that European Cohesion Policy has moved from 'negative integration' to the '**positive integration**' type of policy as it offers financial incentives and the supranational level gained power in its regulative capacity: it defines rules and preconditions for the allocation of funds. An example is the already named partnership principle with which the policy forces the member states to work in a multi-level governance process (Kohler-Koch 2002, 1). According to Ruidisch, however, the EU could not force the member states to implement the Cohesion Policy objectives. Instead the financial incentives - as mentioned above - shall lead to the 'voluntary' implementation of the EU policy objectives (Ruidisch 2013, 101). No directives can be developed. The financial incentives connected to the implementation of the Cohesion and ETC policies illustrate the **facilitated coordination** character of the ETC and Cohesion Policy. **Learning processes** are fostered. Because of the financial incentives Cohesion and ETC Policy can be allocated to the **redistributive policies** (Peters 2003, 321; Dühr, Colomb, and Nadin 2010, 146).

As the Cohesion and ETC Policy are strongly influenced by other EU policy fields, Guasco argues that to understand cross-border cooperation activities in a certain policy field not only the ETC policy needs to be taken into account but also the current political agendas in the other policy fields (Guasco 2015, 41). This approach is adopted in this dissertation and the political agenda at EU level in the field of transport (see **chapter 4.1**) is taken into account to understand its influence on the ETC policy. The objectives of the two EU policy fields and their coordination are analysed in the following chapters. Additionally, the domestic political transport agendas will be taken into account in the two case studies analyses in **chapter 6** and compared to the European agenda to analyse the EU policies' influence. First of all, however, the fundamental aims of the Cohesion and ETC Policy will be described further in the following.

#### 4.2.2 Fundamental aims of the EU Cohesion and ETC Policies

As stated above the EU Cohesion Policy aims at minimizing the regional economic and social disparities within the EU and the member states (Peters 2003, 322; Committee of the Regions 2003, 7) and thus enhancing European integration. The importance of cohesion and balanced development has grown even further, especially due to the accession of member states with a less developed economy (Dunford et al. 2001, 3). After the introduction of the European Single Market and because of globalisation processes the competitiveness between the European regions has grown. In this context the Cohesion Policy shall particularly support disadvantaged regions and minimize the strong competitive pressure. A balanced sustainable development of the EU territory shall be fostered (Peters 2003, 322). The policy tries to produce synergy effects by supporting the EU sectoral policies with its funds. However, the successful production of synergy effects is highly contested. According to Robert it was a challenge to define common Cohesion Policy aims because of a high number of different actors from different DGs and administrative levels were involved. Cohesion Policy is criticized to be inflexible and highly bureaucratic. Furthermore, it is criticized that the policy supported already advanced regions when supporting the implementation of objectives of other policy fields and thus do not contribute to cohesion (Robert et al. 2001, 148). At the same time economic geography theories argue that endogenous growth would be very important for a sustainable economic development. External support, however, would be counterproductive because it would diminish the **competitiveness**. So it is recommended to concentrate investments mainly on growth poles (Peters 2003, 324). Additionally, it is criticized not to be economically efficient when investing in peripheral regions (ibid., 325).

The aim of the **ETC Policy** is also the implementation of objectives of other, **sectoral EU policies** that are adopted from the respective political agendas (Guasco 2015, 41; Schäfer 2003, 116; Millan 1994, 21). Additionally, it shall contribute to a greater European integration. The effects of the inner-European

borders shall be minimized by fostering **cross-border cooperation** and the **exchange of best practices** (European Commission 2005b, 10). Further thematic concentrations and transport objectives depending on the respective funding periods are presented in the coming chapters.

# 4.2.3 EU Cohesion Policy and European Territorial Cooperation from 1957 until 2000

This chapter presents the starting points of European Cohesion policy in 1957 and the development until the year 2000. Thereby it focuses on the most relevant policy documents (see **Figure 29**).

Figure 29: Cohesion Policy milestones between 1957 and 2000



Source: Author, Kaiserslautern, 2017.

In the **Treaty of Rome** (1957) a balanced development for the European territory was anchored as objective and less favoured regions should be supported. This was the beginning of the at that time called 'regional policy' (Dunford et al. 2001, 3). In 1968 the Directorate General (DG) at the European Commission in the field of Regional Policy was established (European Commission and DG Regio 2015). The European Regional Development Fund (ERDF), was introduced in 1975. It became the most important fund to support the aim of a balanced sustainable development of the EU territory (Dunford et al. 2001, 3).

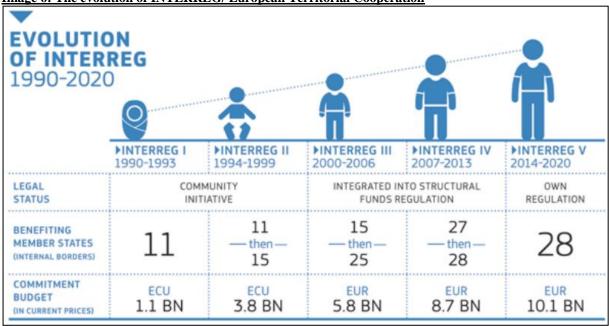


Image 6: The evolution of INTERREG/ European Territorial Cooperation

Source: European Commission 2014d.

In **1987** the European Cohesion Policy was introduced by the **Single European Act** to reduce economic and social disparities between the member states and to reach cohesion (Committee of the Regions 2003, 7). The focus was laid on regions lagging behind in terms of GDP. The framework introduced **multi-annual strategic funding programme periods** and pushed forward the involvement of **subnational partners** as funding precondition. The budget of the programme contained 64 billion ECU for four years (1988-1992) (European Commission and DG Regio 2015).

In **1990** the **INTERREG initiative** was started as subfield of the Cohesion Policy (see also **chapter 3.1.2** and **Image 6**) (Schäfer 2003, 116). The initiative offered financial incentives to **cooperate across borders** in predefined topics with the support of the ERDF (Dühr, Colomb, and Nadin 2010, 233). The first funding period from 1990-1993 focused on cross-border cooperation. The development of joint **cross-border spatial planning strategies** was financially supported (Gabbe and Malchus 2008, 40).

In 1993 the Cohesion Fund was introduced by the Maastricht Treaty. For the funding period 1994-1999 the ERDF and Cohesion Fund had a common budget of 168 billion ECU (European Commission and DG Regio 2015). Because of increased inner-regional disparities as a consequence of the Cohesion Policy in 1997 a **territorial dimension** has been added by the Amsterdam Treaty to Cohesion Policy in addition to the economic and social focus. Other policy documents followed like the Lisbon Strategy (2000), the Territorial Agenda (2007) and the Lisbon Treaty (2007).

The **Lisbon Strategy** (2000) influenced the European Cohesion Policy's aims. Cohesion Policy was to contribute to European sustainable economic growth and the creation of jobs with the help of the member states and regions.

# 4.2.4 EU ETC policies influencing the field of transport in the funding period 2007-2013

In the following the objectives of the main Cohesion Policy documents (see **Figure 30**) influencing the funding period 2007-2013 are presented.

Figure 30: Cohesion Policy milestones influencing the funding period 2007-2013

2005 Community Strategic Guidelines on Cohesion

2006 ERDF regulation

#### Source: Author, Kaiserslautern, 2017.

The Community Strategic Guidelines on Cohesion (2005) were a reaction on the Lisbon Strategy and defined that Cohesion Policy should contribute to an improved attractiveness of the European regions in terms of investments and work, research and innovation and a higher number and quality of jobs (European Commission 2007, 2, 2005b, 12). Funds were to be concentrated on new technologies as well as access to basic infrastructure and information to develop high human capital (European Commission 2005b, 8). To contribute to a higher attractiveness, the European transport infrastructure network was to be improved: It should become efficient, safe and flexible which was expected to have a positive impact on the economy. The support of **TEN-T priority projects** was to be prioritized under the Convergence objective. The cross-border sections of other relevant TEN-T projects - managed by European Coordinators - were to be fostered if being of high economic benefit for the EU. This coordination is expected to contribute to a faster implementation of projects (ibid., 14). The TEN-T should be mainly financed by the Cohesion Fund. The former Structural Funds (ERDF and ESF) should focus generally on investments in the infrastructure extension. Transport infrastructure investments should be adapted to the individual needs of a region. Also remote areas should be integrated at least with secondary networks. However, the environmental harm should be kept as low as possible- Alternative modes of transport including public transport and a high interoperability should be fostered. The Cohesion Policy funds should complement the funds offered by the Transport Policy (ibid., 14f.). Additionally, the EU priorities should be better integrated in the national and subnational programmes, as well as implemented even on local level politics (ibid., 4). Other EU policies were to be considered when developing the Cohesion Policy's programmes to make use of synergy effects (ibid., 8). European Territorial Cooperation (ETC), formerly known as INTERREG initiative, became an objective of the Cohesion Policy (Spinaci and Vara-Arribas 2009, 6; European Commission and DG Regio 2011, 9). The ETC was complemented by two other objectives: 'Convergence' and 'Regional Competitiveness and Employment' (Westermann 2007, 274). Together, the objectives approached the social, economic and territorial dimensions of the Cohesion Policy (European Union 2006, 9). Cross-border **development strategies** and **networks** e.g. in the field of **transport** could be established which was expected to contribute to a European added value (European Commission 2005b, 10). Besides that, the ETC should contribute to a higher **territorial cohesion**, meaning a minimization of territorial differences, developing tailored strategies for different regions and coordinating the spatial impact of sectoral policies. The **accessibility** of **remote areas** was to be supported (ibid., 29). The **enhancement or connection of transport infrastructures across borders** was promoted as a possible point of departure for cooperation or as a contribution to a cross-border identity of a region. Sustainable transport corridors and especially their border sections should be supported in transnational cooperation according to the policy document (ibid., 31).

According to the ERDF regulation of 2006 economic and social cohesion as well as a balanced territorial development of the EU was to be supported. It especially supported the sustainable development of disadvantaged regions and cooperation across borders. The regulation acknowledged that transport is a very relevant objective in that funding period. Among others, the support of infrastructure development, cooperation and exchange of experiences between regions were defined as priorities. Under the *convergence* objective transport was a priority, particularly the TEN-Ts. Additionally, contributions to cleaner, environmentally friendly, multi-modal and more accessible transport was welcomed. The Regional competitiveness and employment objective promoted transport projects which improved the accessibility. Here the focus was laid on secondary networks and their connection to the TEN-T, multi-modal transport offers i.e. alternative modes. The ETC objective was to foster cross-border activities based on common cross-border strategies. One of the priorities areas in cross-border cooperation was the **reduction of barriers** through the support of crossborder development of transport infrastructures and services and an improved accessibility. For transnational cooperation it was envisaged as well to improve the transport accessibility in the transnational dimension. Particularly cross-border sections of the TEN-T as well as secondary networks should be improved. Furthermore, the domestic transport subsystems were to be interlinked and their interoperability increased (European Parliament and Council of the European Union 2006c, 2). Thus, all Cohesion Policy objectives contained references to transport and aimed at influencing the transport development.

**Table 9** gives an overview of the objectives of the two main Cohesion Policy documents influencing the funding period 2007-2013.

The documents approach a high number of topics also named in Transport Policy, however, a focus on passenger transport (instead of freight) can be observed. Environmental concerns as well as infrastructural improvements are very important. A balanced development is promoted which makes remote regions more accessible and also contributes to an interconnection of the TEN-T and secondary networks. Besides that, the exchange of practices is of high importance. The cross-border transport-related objectives are promoted strongly. Solely the promotion of cross-border services is mentioned only by one of the two policy documents.

Table 9: Objectives of the main Conesion Policy documents for the funding	perioa 2007-	2013	
	Strategic	ERDF	
Objectives	guidelines	regulation	Sum
	2005	2006	
Transport infrastructure network	1	1	2
Remove barriers, improve efficiency	1	1	2
Linking TEN-T and secondary networks	1	1	2
Relieve routes/fighting congestion			0
Intermodality/interoperability	1	1	2
Intelligent transport systems			0
Freight corridors			0
New technologies/innovations (research)	1		1
Improving mobility of freight			0
Improving mobility of passengers	1	1	2
Accessibility of remote areas	1	1	2
Connecting neighbouring/new member states		1	1
Cross-border infrastructures	1	1	2
User-friendliness	1		1
Transport services	1	1	2
(Urban) public and soft mobility	1		1
Transport safety	1		1
Cross-border services		1	1
Environmental and sustainability issues	1	1	2
Alternative modes of transport	1	1	2
Alternative fuels/climate change	1		1
Minimising environmental harm	1	1	2
Sustainable transport	1	1	2
Exchange of practices/better coordination	1	1	2
Source: Author, Kaiserslautern, 2017, based on European Commission 2005a: F	Juronaan Darli	ismont and C	ouncil

Table 9: Objectives of the main Cohesion Policy doc	uments for the funding period 2007-2013

Source: Author, Kaiserslautern, 2017, based on European Commission 2005a; European Parliament and Council of the European Union 2006c.

## 4.2.5 EU Cohesion Policy financial support in the field of transport 2007-2013

In the funding period 2007-2013 the *European Regional Development Fund* (ERDF) supported all three Cohesion Policy goals. In the *Convergence, Regional competitive and employment* and *European Territorial Cooperation* goals transport-related objectives were promoted as described in **chapter 4.2.4** as priority area. In the funding period 2007-2013 a total sum of **308 billion Euros** was available for all three funds. Thereof **7.7 billion** Euros were available for the ETC (European Union 2006, 18).

The ETC funds were managed in **multi-annual** funding programmes (ibid., 10). For European Territorial Cooperation, the Commission defined the eligible cross border and transnational **cooperation areas**. In general, NUTS 3 level regions along the internal borders and those separated by maritime borders by maximum 150km were eligible for cross-border cooperation (ibid., 7) (see also **chapter 3.1.2**).

The member states participating together in a cooperation area needed to commonly define one **managing, certifying and single audit authority**. The managing authority established a **common technical secretariat** which supported the three authorities (European Parliament and Council of the European Union 2006c, 14).

Based on the priorities laid down in the Operational Programmes of a cooperation area (see **chapter 4.1.1**), cross-border **project** committees were able to apply for funding. In cross-border or transnational cooperation the beneficiaries had to have at least two different national origins (at least one of them a Member State) and jointly develop, implement, staff or finance the project (ibid., 19).

Between 2007 and 2013 the *Cohesion Fund* supported, among others, the implementation of the **Trans-European Transport Networks in less-developed regions**. It therefore financially supports (priority)

projects in this field (Council of the European Union 2006a, 2). It additionally supports other transport projects that show an "environmental benefit" (ibid., 2). So the fund is an important instrument to foster the European transport development in poorer EU regions.

# 4.2.6 EU ETC policies influencing the field of transport in the funding period 2014-2020

The new Cohesion Policy framework (2014-2020) consists of several new regulations (see **Figure 31**). It reduces the former three goals of Cohesion Policy to the *Investments in growth and jobs*-objective and the *European Territorial Cooperation*-objective (European Union 2011, 5).

Figure 31: Cohesion Policy milestones influencing the funding period 2014-2020

	2013 Common provisions of the Cohesion Policy's funds								
2013	2013 ERDF regulation to the Investment for growth and jobs goal								
	2013 ERDF regulation to the ETC goal								
	2013 Cohesion Fund regulation								
	Source: Author, Kaiserslautern, 2017. Figure 32: Investment priorities of the Cohesion Policy 2014-2020								
	1. Strengthening research, technological development and innovation		5. Promoting climate change adaptation, risk prevention and management		8. Promoting sustainable and quality employment and supporting labour mobility				
R	2. Enhancing access to, and use and quality of, information and communication technologies		6. Preserving and protecting the environment and promoting resource efficiency	( <del>Ÿ)</del>	9. Promoting social inclusion, combating poverty and any discrimination				
	3. Enhancing the competitiveness of SMEs		7. Promoting sustainable transport and improving network infrastructures		10. Investing in education, training and lifelong learning				
9	4. Supporting the shift towards a low-carbon economy				11. Improving the efficiency of public administration				

Source: European Commission 2015e.ibid..

In the regulation of the **Common Provisions of the Cohesion Policy's funds** (2013) a common strategic approach with common thematic objectives (see **Figure 32**) for all funds and a common strategic framework was defined. The thematic objectives were based on the aims of the **Europe 2020 Strategy** (European Parliament and Council of the European Union 2013d, 9). One of the objectives related to transport: it was to be contributed to a **sustainable transport system** without **bottlenecks** (ibid., 9). The policy document set out rules for the coordination of the Cohesion Policy Funds with other EU policies

and instruments. This concerned also the **Connecting Europe Facility**. Duplication was to be avoided and the programmes should complement each other (ibid., appendix I 4). The member states and regional authorities should motivate territorial cooperation projects to **plan infrastructures across borders** to establish **missing links** and to offer **environmentally friendly intermodal services** (ibid., appendix I 7.2).

The **ERDF regulation on the investment for growth and gobs-goal** of **2013** defined a list of priority areas. Sustainable transport and investments in transport network infrastructures to remove bottlenecks could be supported. Furthermore, the **TEN-T** development; the connection of **secondary networks** to the TEN-T, environmental friendly, safe and sustainable transport modes and innovations are among the further supportable objectives (European Parliament and Council of the European Union 2013c, art.5,12). Remote regions can be supported additionally in the establishment of transport services for freight and passengers (ibid., art.3,12). In order to contribute to a higher mobility different levels of the transport networks shall be linked (ibid., 12). The regulation defined output indicators to evaluate the impact of projects. In transport projects the length of the established infrastructures were to be measured in kilometres (ibid., 6).

A special **ERDF regulation** was laid down concerning the **European Territorial Cooperation** (ETC) goal in 2013 because special conditions apply to the ETC in which at least two countries cooperate (European Parliament and Council of the European Union 2013a, 2). The ETC should facilitate and encourage cross-border, transnational and interregional cooperation through the support of projects and thereby contribute to the overarching aim of economic, social and territorial cohesion and a balanced development (ibid., 2). Cross-border regions should focus their cooperation, among others, on higher transport accessibility, the minimization of environmental harm and better integrated crossborder labour markets. Transnational cooperation could be supported in the general field of integrated territorial development. As the ETC should support the aims of the Europe 2020 strategy, cross-border mobility should become more sustainable. Besides the 11 general objectives of the Cohesion Policy (see Figure 32) the ETC could support additional actions, among others, the development of macro-regional strategies for transnational cooperation areas and in cross-border regional specific fields of relevance and the exchange of experiences, especially in interregional cooperation (ibid., 7). The ETC regulation defined its own list of output indicators in the field of transport, also measured in kilometre length but does not further go into details concerning transport projects (ibid., 2). According to the regulation the cross-border cooperation areas could overlap but should be continued in their main shapes of the last funding period (2007-2013). The transnational cooperation areas should be linked to existing macro-regional strategies and allow an integrated territorial development (ibid., preamble).

According to the **Cohesion Fund regulation** of **2013** the fund should support projects in the field of environment and **TEN-T**, as well as transport projects in general, contributing to **alternative transport modes**, **intermodality**, **transport management**, **noise reduction**, **urban mobility** with **low CO**<sub>2</sub> **emissions** and **public transport** services. Additionally, **bottlenecks** should be removed, also at the local and regional level. With regards to the TEN-T particularly projects of **common interest** should be supported referring to the TEN-T guidelines of 2013. Therefore the Cohesion Fund is to complement the Connecting Europe Facility (European Parliament and Council of the European Union 2013b, 2).

**Table 10** presents an overview of the objectives of the two main Cohesion Policy documents influencing the funding period 2014-2020 in the field of transport. Most important topics were the removing of existing bottlenecks, and transport in relation to sustainability as well as environment. Climate Change is an important topic as well. The cross-border transport-related objectives are promoted to a lower percentage than in the last funding period. Only the enhancement of cross-border services is promoted

by more than 50% of the Cohesion Policy documents. The documents analysed in this period were established in the same year and are coordinated in the main points.

Table 10: Objectives of the main Conesion 1 oncy of	ocuments for	the fullulity	g periou 201	<b>H-2020</b>	
	ETC	Gr.&Jobs	Common	Cohes.Fund	
Objectives	regulation	regulation	provisions	regulation	Sum
	2013	2013	2013	2013	
Transport infrastructure network		1	1	1	3
Remove barriers, improve efficiency	1	1	1	1	4
Linking TEN-T and secondary networks		1	1		2
Relieve routes/fighting congestion					0
Intermodality/interoperability			1	1	2
Intelligent transport systems		1			1
Freight corridors			1		1
New technologies/innovations (research)		1			1
Improving mobility of freight		1	1		2
Improving mobility of passengers	1	1		1	3
Accessibility of remote areas	1	1	1	1	4
Connecting neighbouring/new member states	1				1
Cross-border infrastructures	1		1		2
User-friendliness					0
Transport services		1	1	1	3
(Urban) public and soft mobility			1	1	2
Transport safety		1			1
Cross-border services	1	1	1		3
Environmental and sustainability issues	1	1	1		4
Alternative modes of transport		1	1	1	3
Alternative fuels/climate change	1	1	1	1	4
Minimising environmental harm	1	1	1	1	4
Sustainable transport	1	1	1		3
Exchange of practices/better coordination	1		1		2
Cource: Author Kaiserslautern 2017 based on Euror	ean Parliame	nt and Counc	il of the Fur	onean Union '	20139

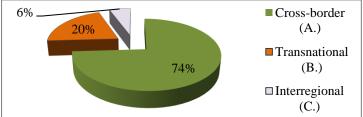
Table 10: Objectives of the main Cohesion Policy documents for the funding period 2014-2020

Source: Author, Kaiserslautern, 2017, based on European Parliament and Council of the European Union 2013a, European Parliament and Council of the European Union 2013b, 2013d, 2013c.

## 4.2.7 EU Cohesion Policy financial support in the field of transport 2014-2020

In the funding period 2014-2020 the *ERDF* still supported investments in the transport development (European Parliament and Council of the European Union 2013c, 3) as presented in **chapter 4.1.6**. The ERDF in the Investment for jobs and growth goal had to focus its support on objectives 1-4 displayed in **Figure 32**, in ETC this restriction did not apply (European Commission 2015e). Instead the ETC cross-border and transnational cooperation programmes should concentrate a minimum of 80% of the funds on a maximum of four of the 11 general aims of Cohesion Policy in order to develop a thematic focus (European Parliament and Council of the European Union 2013a, art.6). Because the priorities of both Cohesion Policy funds were based on the common thematic objectives of the Cohesion Policy they had the same priorities. The only difference was that the *Cohesion Fund* formulated less sub-fields than the ERDF. Additionally, the Cohesion Fund should focus its support on objectives 4-7 and 11 (European Commission 2015e). Its main transport objectives were already named in **chapter 4.1.6**.

The **ETC policy** is solely supported by the ERDF in multi-annual programmes. In the current funding period (2014-2020) the EU dedicated almost three quarters of the ETC budget to cross-border regional cooperation, 20% to transnational cooperation and only 500 million Euro to interregional cooperation (see **Figure 33**) (European Parliament and Council of the European Union 2013a, 4).





Source: Author, Kaiserslautern, 2017, based on ibid..

Like in the last funding period a **managing authority** and a **joint secretariat**, a **certifying authority** and an **audit authority** were to be developed for each ETC cooperation area. The **certifying authority** manages the funds on intermediate level between European Commission and the lead beneficiaries of projects (ibid., 33). The selection of project applications is done by the **monitoring committee** which can be assisted by a **steering committee** (ibid., art.12).

In the ETC policy there are again special requirements for the **composition of project participants**: In cross-border and transnational cooperations (**INTERREG A+B**) project teams have to consist of entities from at least two countries, at least one of them being a Member State. One of them has to be appointed as lead partner (ibid., 12).

The documents relevant for Cohesion Policy funding are similar to the previous funding period, however, some names and details changed (see **Figure 28**). Among others, fund allocations and indicators needed to be defined in the ETC Cooperation Programmes as new requirement. The latter shall be done in order to be able to measure the results (European Parliament and Council of the European Union 2013d, art. 26f., 2013a, art.8).

### 4.2.8 Development of Cohesion and ETC policy objectives over the years

**Table 11** presents the objectives of the Cohesion Policy documents in the field of transport between 2005 until 2013, hence, for the funding periods 2007-2013 and 2014-2020 in a synopsis. Some Transport Policy aims are not considered at all by the Cohesion Policy like relieving roads and promoting freight corridors. Freight in general was not an important topic in both funding periods.

The comparison of both funding periods shows that in many cases strongly promoted objectives of the first funding period reduced their relevance in the second period. This is probably due to the higher number of specialised policy documents produced in the second funding period. Some objectives' relevance was increased between 2014 and 2020 such as the promotion of cross-border transport services.

Overall, the three **cross-border transport-related objectives** were promoted by 67% of all Cohesion Policy documents. The linkage of TEN-T and secondary networks and the improvement of cross-border infrastructures were promoted by a higher percentage of documents in the first funding period. Thus, their relevance was reduced.

Objectives		Funding period 2007-2013			Funding period 2014-2020				
		ERDF 2006	%	ETC 2013	G&J 2013	CP 2013	CF 2013	% since 2013	% total
Transport infrastructure network	1	1	100		1	1	1	75	83
Remove barriers, improve efficiency	1	1	100	1	1	1	1	100	100
Linking TEN-T and secondary networks	1	1	100		1	1		50	67
Relieve routes/fighting congestion			0					0	0
Intermodality/interoperability	1	1	100			1	1	50	67
Intelligent transport systems			0		1			25	17
Freight corridors			0			1		25	17
New technologies/ innovations (research)	1		50		1			25	33
Improving mobility of freight			0		1	1		50	33
Improving mobility of passengers	1	1	100	1	1		1	75	83
Accessibility of remote areas	1	1	100	1	1	1	1	100	100
Connecting neighbouring/new member states		1	50	1				25	33
Cross-border infrastructures	1	1	100	1		1		50	67
User-friendliness	1		50					0	17
Transport services	1	1	100		1	1	1	75	83
(Urban) public and soft mobility	1		50			1	1	50	50
Transport safety	1		50		1			25	33
Cross-border services		1	50	1	1	1		75	67
Environmental and sustainability issues	1	1	100	1	1	1	1	100	100
Alternative modes of transport	1	1	100		1	1	1	75	83
Alternative fuels/climate change	1		50	1	1	1	1	100	83
Minimising environmental harm	1	1	100	1	1	1	1	100	100
Sustainable transport	1	1	100	1	1	1		75	83
Exchange of practices/better coordination	1	1	100	1		1		50	67

Table 11: Overview of the objectives of the Cohesion Policy documents 2005-2013 in the field of transport

Source: Author, Kaiserslautern, 2017, based on European Parliament and Council of the European Union 2013a, 2013b, 2013c, 2013d, 2006c; European Commission 2005a.

After having presented the main characteristics and objectives of the Cohesion (ETC) and Transport (TEN-T) Policy the next chapter describes challenges and potentials in the coordination of the two policy fields that both aim at developing the European transport infrastructure. This includes also a comparison of the objectives of both policies.

## 4.3 Coordination of EU policy documents influencing cross-border transport in the EU

In this chapter, first the EU policy fields Transport and Cohesion are compared in terms of their character and their objectives. Second, the objectives of the sub-policies TEN-T and the ETC are compared in the two funding periods. In the conclusion it is evaluated how the policy fields are coordinated in terms of cross-border transport.

## 4.3.1 EU Cohesion and Transport Policy – Differences and similarities

According to neo-functionalism (see **chapter 2**) EU policies mutually influence each other. The EU policies have different spatial impacts, fundamental aims and influences. The establishment of a common European transport system is supported by different EU policies and funds (Robert et al. 2001,

57). Therefore policy coordination is important to ensure that the policies and investments do not contradict each other. In practice, however, the policies are often not formulated in a coherent way. In the following differences and similarities in the promotion of the transport-related objectives of the Cohesion and the Transport Policy are presented after a short comparison of the two policies' character.

#### Policy character

The Transport and TEN-T Policies are sectoral policies whereas the Cohesion Policy is a territorial policy which additionally facilitates the implementation of sectoral policies. The TEN-T Policy as well as the Cohesion Policy are **non-hierarchical policies**. Because of a missing pressure and different initial situations in the member states the degree of implementation of both policy areas can differ in the member states. With the introduction of the TEN-T corridors a potentially higher obligation was created in the TEN-T policy compared to the Cohesion Policy. However, this is not comparable with binding directives that are developed in other EU policy fields.

The formulated objectives of both policy fields are to be implemented with the help of financial incentives and facilitated transnational coordination platforms, i.e. soft spaces which develop joint development plans. The implementation is prepared in bilateral negotiations between the European Commission and the member states in which the member states' development aims were defined. Particularly in the Cohesion Policy special policy documents are defined in this process for each funding period. Thereby both policy fields show elements of **facilitated coordination** traits.

The main difference concerns the distribution of funds. The Cohesion Policy mainly supports disadvantaged territories whereas the Transport Policy focuses its investments on the most frequently used large scale infrastructures in European hubs and less on remote areas.

Besides that, the funds of the two policies are distributed according to different territorial patterns. The Transport Policy and in particular the TEN-T financial support is focused on the enhancement of certain infrastructures and has a direct spatial influence with a linear or punctual concentration. Cohesion Policy, demarcates broader spaces eligible for funding, i.e. cross-border regions or transnational regions. It distributes its funds on NUTS level.

### Transport-related objectives

The European transport development is influenced by different interventions from several policy fields as shown in **chapter 4.1** and **4.2**. **Figure 34** gives an overview of the Transport and Cohesion Policy objectives related to European transport development for the last (2007-2013) and current (2014-2020) funding period. A detailed table of all policy documents can be found in the appendix.

It can be seen that the policies' focuses differ between the two policy fields. Some objectives are very relevant in one policy field whereas being relevant to a less degree or not at all in the other. The special focuses of both policy fields which are promoted much more than in the other policy are depicted in **Table 12**.

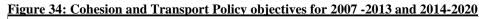
Special focuses of the Transport Policy	Special focuses of the Cohesion Policy
Relieve routes/fighting congestion	Alternative fuels/climate change
Cross-border infrastructures	Linking TEN-T and secondary networks
Transport safety	Exchange of practices/coordination
New technologies/innovations	Cross-border transport services
Freight mobility	

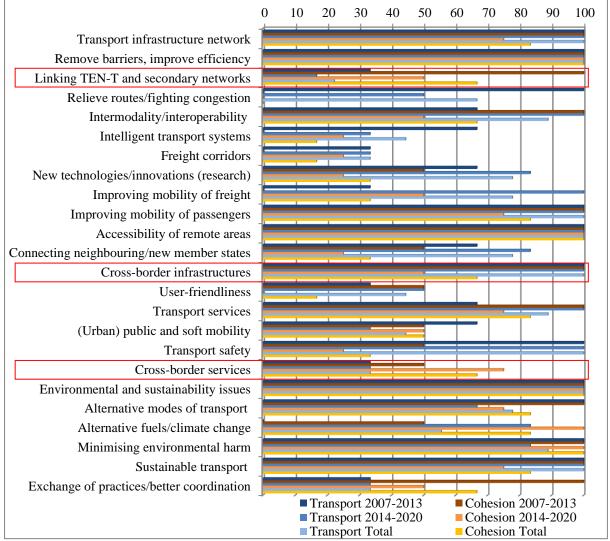
 Table 12: Special focuses of Transport and Cohesion Policy (2007-2020)

Source: Author, Kaiserslautern 2017.

The improvement of cross-border infrastructures which is very relevant in this study is promoted much more often in Transport Policy than in Cohesion Policy. However, it is considered to be relevant in both policy fields. The linkage of TEN-T and secondary networks and the enhancement of cross-border

transport services, however, belong to the special focuses of the Cohesion Policy and are thus, less promoted by the Transport Policy documents. A closer analysis of the TEN-T and ETC policy on cross-border transport will be conducted in the following part of this chapter.





Source: Author, Kaiserslautern, 2017.

The two policies also share an interest in some transport policy objectives such as the improvement of the infrastructure network, especially removing barriers, passenger mobility, an increased accessibility of remote areas and an environmental friendly and sustainable development.

Thus, in some fields the policies combine their efforts, in others they complement each other.

In the following the focus is laid on the European Territorial Cooperation and the ERDF because crossborder regions are to be investigated. Not the whole EU Cohesion Policy is analysed. Another limitation concerns the ETC strand. It will be focused on INTERREG A, hence, cross-border cooperation. Transnational cooperation (INTERREG B) will be taken into account as well because they also influence transport development across borders and overlap with INTERREG A regions. These might foster projects between different INTERREG A regions. The INTERREG C strand (interregional cooperation), however, will not be investigated because of the long distances between the project partners. Besides that, it will be focused on the TEN-T policy and not the whole EU Transport Policy. The top-down impact analysis, however, will take into account the transport-related objectives of the other Transport and Cohesion Policy documents which potentially have influenced the TEN-T and ETC policy, in order to better evaluate the influence of the EU policy transport discourse on the member states.

## 4.3.2 Objectives of the TEN-T and ETC policies and their contribution to crossborder transport between 2007 and 2013

In this section the EU policy documents of the Trans-European Transport Network (TEN-T) and the European Territorial Cooperation (ETC) policy that addressed cross-border transport within the last funding period (2007-2013) are analysed with the purpose of comparing their fundamental aims and the development of their objectives to detect possible cross-references and contradictions.

Table 13 directly opposes the objectives of the TEN-T guidelines 2004 and the ERDF regulation 2006. The two policy documents defined the objectives of the TEN-T and ETC Policy between 2007 and 2013. The comparison shows that many interests were shared, especially in the categories of passenger mobility, transport infrastructure network as well as environment and sustainable issues. New technologies, user-friendly passenger transport, urban public and soft mobility as well as alternative fuels were not promoted in both policy documents. It stands out that the connection of the TEN-T with secondary networks and better cross-border services were solely defined as objectives of the ETC policy whereas cross-border infrastructures were promoted by both policy fields. More technical aims concerning freight and intelligent transport systems, constructing relieve routes and transport safety were solely addressed by the TEN-T guidelines. Thus, the TEN-T policy was strongly focused on the technical infrastructures of the primary transport networks whereas the ETC had a more comprehensive interpretation of cross-border transport with a focus on territorial cohesion which is explicitly promoted.

Objectives	TEN-T guidelines 2004	ERDF regulation 2006
Transport infrastructure network	1	1
Remove barriers, improve efficiency	1	1
Linking TEN-T and secondary networks		1
Relieve routes/fighting congestion	1	
Intermodality/interoperability	1	1
Intelligent transport systems	1	
Freight corridors	1	
New technologies/innovations (research)		
Improving mobility of freight	1	
Improving mobility of passengers	1	1
Accessibility of remote areas	1	1
Connecting neighbouring/new member states	1	1
Cross-border infrastructures	1	1
User-friendliness		
Transport services		1
(Urban) public and soft mobility		
Transport safety	1	
Cross-border services		1
Environmental and sustainability issues	1	1
Alternative modes of transport	1	1
Alternative fuels/climate change		
Minimising environmental harm	1	1
Sustainable transport	1	1
Exchange of practices/better coordination		1
Source: Author, Kaiserslautern, 2017, based on European	Parliament and Council of	the European Union 2004

Table 13: Comparison of the transport-related objectives of ETC and TEN-T policy 2007-2013

2006c.

The ETC Policy (i.e. the ERDF regulation) regarded a good transport infrastructure in general to be of high importance for **European Cohesion** as it is said to contribute to economic growth and to a higher attractiveness of the European regions (Council of the European Union 2006b, 15). As the support of ETC was dedicated to **cross-border and transnational regions**, among others, (ibid., 28), cross-border TEN-T projects that contribute to economic growth and competitiveness should be facilitated (ibid., 15f.). The **sustainable** development of the EU territory shall be guaranteed by linking the TEN-T to secondary networks and increasing the accessibility (European Commission 2006b, 6). Thus, the document explicitly refers to the TEN-T policy. Further reasons were the **integration of the member states' domestic markets** (Council of the European Union 2006b, 15f.) and a contribution to the **European identity**. Furthermore, cross-border cooperation was said to be needed to find **solutions to common transport challenges** of several neighbouring member states. Additionally, a good cross-border infrastructure in turn is seen as **prerequisite for cross-border cooperation**. **Functional spaces** were to be taken into account in the zoning of the transnational cooperation areas within the EU based on commonalities like a common transport corridor. Thereby they could react jointly on possible challenges and opportunities. Commonly conducted **transnational transport projects** were expected to contribute to the **inter-linkage** of European regions (ibid., 31).

Between 2007 and 2013 the **TEN-T Policy** accredited a high importance to cross-border transport. Cross-border projects were considered to be of high **European added value** and therefore worthy of support although being less profitable and cost-effective (European Commission 2001b, 58). The support of cross-border infrastructures shall contribute to the completion of the **Single Market** (European Parliament and Council of the European Union 2004, 7) and an enlarged **EU competitiveness**. Investments in cross-border linkages connect the member states and facilitate a mutual **benefit from the internal market and economic growth** (European Parliament and Council of the European Union 2007, 3). The focus is laid on the **most important routes'** cross-border sections (European Parliament and Council of the European Union 2004, 1). The TEN-T priority projects should focus their support on their border crossings (ibid., 1). Additionally, the EU dedicated a higher funding rate to cross-border sections (European Parliament and Council of the scarce funds on priority areas which ensure a European added value such as border-section projects (ibid., 8). Especially **joint cross-border projects** that involve several member states were to be funded. To ensure the project implementation the concerned member states should sign an agreement to complete the cross-border connection (ibid., 3).

Comparing the reasons for the support of European cross-border transport (see **Table 14**), both, the TEN-T and the ETC documents, argued for the importance of cross-border connections for the European economic development. Furthermore, cross-border transport investments were said to contribute to a higher accessibility and mobility. The ETC document also referred to soft factors such as an increased European identity as well as a sustainable European territorial development. Overall, at the level of EU policy formulation the general reasoning for the support of cross-border transport of both policies does not contradict each other. The ETC policy complements the mainly economically driven reasons of the TEN-T policy.

TEN-T Policy (Transport)	ETC Policy (Cohesion)	
Competitiveness	Increased attractiveness of the regions	
	Economic growth	
Completion of the Single Market	Completion of the Single Market	
Completion of the TEN-T	Cohesion by accessibility and interconnectedness	
-	European identity	
-	Territorial sustainable development	

Table 14: Comparison of the reasons for the support of cross-border transport (2007-2013)

Source: Author, Kaiserslautern, 2017.

Overall, the comparison shows that cross-border projects were attributed with a high priority in both funding schemes of the two policy fields. The TEN-T document had a stronger technical focus and detail

than the ETC document. The ETC document contained direct references to the TEN-T. The ERDF is not solely dedicated to the establishment of secondary networks, it can support sections of TEN-T projects as well. Thus, an overlap of the two policy fields was detected. The focus of support is slightly different: The TEN-T-policy focuses mainly on the implementation of the TEN-T axes and priority projects. The ETC promoted mainly the connection of secondary and tertiary networks across borders. Transnational cooperation was to be focused on the development of transport corridors whereas cross-border cooperation was envisaged to support cross-border projects at a lower scale.

## 4.3.3 Objectives of the TEN-T and ETC policies and their contribution to crossborder transport 2014 – 2020

This section compares the fundamental aims and the development of the objectives of the TEN-T and ETC policy in the funding period 2014-2020 to detect possible cross-references and contradictions and their development over time.

**Table 15** shows the transport development objectives of the TEN-T guidelines and CEF regulation of 2013 and the ETC regulation of 2013 which were most relevant for the current funding period (2014-2020) in terms of aims and funds. The TEN-T guidelines contained all transport objectives except of one - the linkage of the TEN-T and secondary networks - and are thus very comprehensive. The CEF regulation was less comprehensive while defining the areas of eligibility for the CEF. The ETC regulation was also less comprehensive in the field of transport and set a focus on a limited number of objectives. Surprisingly the linkage of TEN-T and secondary networks was not an explicit objective of the ETC policy document anymore. However, this objective was promoted in the Common Provisions regulation which is also relevant for the ETC. Therefore it is an implicit objective of the ETC policy (European Parliament and Council of the European Union 2013d, 5). The ETC document focuses on environmental friendly and sustainable transport, the improvement of cross-border transport services and therewith a higher mobility of passengers. The ETC document does <u>not</u> promote several transport-infrastructural objectives and service related objectives. The exchange of experiences or better coordination of transport planning across borders is supported by both policies but not the CEF funds.

When having a look on the cross-border transport-related aims, the **TEN-T** policy promotes the enhancement of transport across national borders to contribute to **Cohesion** (European Parliament and Council of the European Union 2013f, 1). TEN-T core network projects with a high **European added value** should improve their cross-border sections, bottlenecks and missing links. These investments shall lead to a **higher efficiency** and **sustainability** by fostering territorial cooperation (European Parliament and Council of the European Union 2013e, 21). The comprehensive TEN-T network shall as well focus its investments on the **connection of transport axes** especially in cross-border sections (ibid., 10). Thus, border crossings are to be prioritized and improved at both layer levels. The **ETC** funded transport projects should improve the **accessibility of the comprehensive and core TEN-T network** and contribute to the **Single European Transport Area**. Besides that, the projects envisaged should be mature and viable (European Parliament and Council of the European Union 2013d, Annex XI p. 443f.). Cross-border transport should become more **sustainable** by evaluating the status quo and detecting cross-border links (European Parliament and Council of the European Union 2013a, 17).

Also in the funding period (2014-2020) both policy documents ascribed cross-border transport a high relevance. In the priority field of cross-border transport both policy documents mutually referred to each other - especially in the case of funds. The two policy fields explain the relevance with several similar reasons (see **Table 16**), e.g. the reduction of  $CO_2$  emissions, the completion of a continuous European transport network and further European cohesion.

Objectives	TEN-T guidelines 2013	CEF 2013	ETC regulation 2013
Transport infrastructure network	1	1	
Remove barriers, improve efficiency	1	1	1
Linking TEN-T and secondary networks			*41
Relieve routes/fighting congestion	1		
Intermodality/interoperability	1	1	
Intelligent transport systems	1		
Freight corridors	1		
New technologies/innovations (research)	1	1	
Improving mobility of freight	1	1	
Improving mobility of passengers	1	1	1
Accessibility of remote areas	1	1	1
Connecting neighbouring/new member states	1		1
Cross-border infrastructures	1	1	1
User-friendliness	1		
Transport services	1	1	
(Urban) public and soft mobility	1		
Transport safety	1	1	
Cross-border services	1		1
Environmental and sustainability issues	1	1	1
Alternative modes of transport	1	1	
Alternative fuels/climate change	1	1	1
Minimising environmental harm	1		1
Sustainable transport	1	1	1
Exchange of practices/better coordination	1		1

Table 15: Comparison of the transport-related objective	es of ETC and T	<b>FEN-T</b> Policy	2014-2020

Source: Author, Kaiserslautern, 2017, based on European Parliament and Council of the European Union 2013a, 2013e.

The Europe 2020 Strategy – mentioned by both policies - can be seen as a catalyst that led to the convergence of some transport-related objectives and the establishment of a common focus. However, other focuses differ: whereas the ETC policy concentrates its funds on the comprehensive network and implicitly supports inter-linkages between the TEN-Ts and secondary networks, the TEN-T policy fosters both layers but prioritizes the primary network. Furthermore, the ETC aims at contributing to an equal accessibility and a balanced development within the EU. The TEN-T policy pursues the concentration of scarce funds on key infrastructures, which contradicts the balanced development although both policy fields aim at contributing to European Cohesion.

TEN-T Policy (Transport)	ETC Policy (Cohesion)		
Reduction of CO <sub>2</sub> emissions			
Sustainable and efficient transport Sustainable transport			
European Cohesion			
Continuity of European transport axes	Single European Transport Area		
Support of both layers	Support of comprehensive network (mainly)		
- Access to the TEN-T network, balanced devel			
Coordination of the transport funds	Better coordination with CEF and TEN-T		
Territorial cooperation	Common, coherent planning across borders		
Europe 2	Europe 2020 Strategy		

Source: Author, Kaiserslautern, 2017, based on European Parliament and Council of the European Union 2013a, 2013e, 2013f.

<sup>&</sup>lt;sup>41</sup> It was not stated explicitly in the ETC regulation. However, as it was mentioned as objective in the Common Provisions regulation from 2013 on which the ETC is based, the connection of secondary and TEN-T networks implicitly remained one of the ETC aims (European Parliament and Council of the European Union 2013d, 5).

The new policy documents introduced organisational and procedural changes. The Europe 2020 Strategy introduced a stronger evaluation component: output indicators were to be used to monitor the implementation and revenue of the investments (European Commission 2014a; European Parliament and Council of the European Union 2013f, 4). Besides that, ex-ante conditionalities had to be fulfilled by projects in order to be funded. The member states needed to develop a comprehensive plan on transport investments including plans at all administrative levels and all transport modes before they could be financially supported (European Parliament and Council of the European Union 2013d, Annex XI p. 443f.). Furthermore, the policies were called to be better coordinated. This was mirrored by the two policy fields as they contained more concrete mutual references (European Parliament and Council of the European Union 2013d, 1, 2013f, preamble, 2013e, 50): the TEN-T policy documents, for instance, encouraged the parallel use of other funding programmes like the ERDF to reach the Transport Policy's aims. In this respect, the **coordination** of funds had a high relevance in contributing to the implementation of cross-border projects (European Parliament and Council of the European Union 2013e, 50, 2013f, 10; European Commission 2014b, 10). Not only the funds were to be coordinated, also the policy documents' objectives themselves: ETC projects in particular should facilitate transnational coherent planning and development of transport infrastructure for a transnational region (European Parliament and Council of the European Union 2013d, Annex I, 7.2). Transnational ETC transport projects should be aligned with the existing plans of the TEN-T Core Network Corridors (ibid., Annex I, 4.8 and 7.3).

Compared to the last funding period more reasons for the funding of cross-border transport projects were defined in the TEN-T and ETC policy and the policies are interrelated in a stronger way. Due to some existing differences of the focuses the policies can complement each other.

## 4.3.4 Conclusion: coordination of European Territorial Cooperation and Trans-European Transport Networks and their contribution to cross-border transport

Generally, the TEN-T and ETC policy share common **objectives** in relation to the European transport development. Accessibility is an important factor for the EU and thus, is to be improved, especially in remote areas, by both policy fields. Both policies support the development of a EU wide transport system and share a priority focus on cross-border transport. The TEN-T policy promotes mainly cross-border infrastructures. The ETC additionally promotes cross-border services. Therefore, the two policies can complement each other.

In both policies several **reasons** exist to support cross-border transport and there are measures to facilitate the implementation of cross-border transport projects. Examples are simplified procedures or higher funding rates. The ETC policy can support projects in the transport sector and already did so in the past. The ERDF has been and will be an important indirect financial contribution to the scarce funds of the TEN-T policy and the further development of the European transport infrastructure.

When looking more detailed in the related **funding schemes** of the two policies the TEN-T policy focused more on profitable transport investments. Fewer investments were taken in disadvantaged areas. Instead funds were concentrated on the busiest transport connections i.e. the priority projects respectively the core transport corridors. With the new TEN-T regulations, however, better funding rates were offered for cross-border projects that had been less viable before. This might be an incentive for higher investment rates in these areas. Cross-border connections shall be improved as a priority. Still the focus of the TEN-T policy is laid on cross-border sections which are part of the core corridors or connect several corridors. It supports cross-border transport to support formerly disadvantaged border

regions and the cooperation across borders. This is another difference based on which the policies can complement each other.

The two policies are both geared to overarching temporary EU aims as currently laid down by the Europe 2020 Strategy and therefore share common focuses. These strategies harmonize and coordinate the investments to a certain extent.

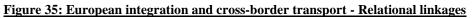
Other differences concern the **policy-making** and **implementation** processes of the policies. So far no formal **policy coordination** procedure has existed at EU level. Therefore the two policies have been hardly coordinated and the member states themselves had to coordinate the supranational and domestic policies at national level. However, the policy documents of the current funding period (2014-2020) called for a stronger coordination and mutually referred to each other. This might contribute to a better steered development at EU and lower levels. Besides common objectives the policies have their own focuses and could complement each other. Both policy fields and funds could join forces to support links between the two transport levels. A further alignment of the development of cross-border transport in practice could be reached by involving the Core Corridor Managers of the TEN-T. Based on a frequent exchange between ETC managing authorities of cross-border regions and the latter managers the objectives of the projects and their linkage to the TEN-T core network could be fortified.

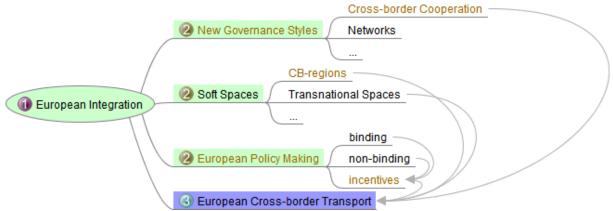
The implementation of the policy documents in the corridor and cross-border regional policy documents will show the practicability of coordination. Thus, an analysis of the adopted transport-related objectives in the Operational and Cooperation Programmes of the cross-border regions in European Territorial Cooperation and the priority projects as well as core network corridor work plans of the Trans-European Transport Networks will be done in **chapter 5** to see how the two policies' objectives have been implemented in these soft cooperation spaces.

The following interim conclusion summarizes and links the findings of **chapters 2**, **3** and **4** with each other and points out hypotheses and research questions that are to be answered in the second part of the dissertation.

## Interim Conclusion I: European Integration, Policies and Cross-Border Transport

This chapter outlines the theoretical framework for the subsequent analysis by combining the main findings of **chapters 2, 3 and 4** (see **Figure 35**). At the end of each paragraph, hypotheses and further research questions are derived (printed in cursive characters), which shall be verified in the subsequent analytical parts of the dissertation. First, the theories of European integration are used to explain the development of new modes of governance (e.g. cross-border cooperation) and soft spaces (e.g. cross-border regions) as well as EU policy-making (e.g. EU binding, non-binding and incentive policies) intended to overcome the traditional national boundaries of conducting politics and planning. It is argued that the European integration processes have led to a highly diverse picture of **cross-border regions**, **cross-border cooperation** and **EU policies** in practice. These three named dimensions are considered to be highly relevant and beneficial for the establishment and improvement of **cross-border transport**.





#### Source: Author, Kaiserslautern, 2017.

To evaluate the implementation and transfer of the EU policies in practice, the fundamental aims, operating principles and characteristics of the EU policies relevant to cross-border transport are subsumed in the following. Additionally, information concerning further influence factors related to the policy implementation is presented, since it is expected to vary strongly based on the initial situations of the countries and cross-border regions. Therefore, a checklist regarding cross-border regional cooperation is defined at the end of the chapter, which shall then be used for the case study evaluation in **chapters 5** and **6**.

## Cross-border transport within the EU

In most countries, transport development was originally steered at the national level, which was responsible for defining and managing the maintenance and construction of the main transport infrastructures for the country's sovereign territory. During the planning process, politicians and civil servants are provided with technical support by spatial planners, transport planners, architects or civil engineers. The responsibilities of these experts are bound to the national administrative boundaries.

This practice worked quite well for many years during times when the state borders demarcated the national economic activities. The national transport systems functioned independently of those of their neighbouring countries. Each country had its own administrative and legal structures, traditions, cultures, policies and instruments in the field of spatial and transport planning, but also in the countries' fundamental state systems for their demarcated territory. Therefore, the countries' legitimacy was bound to the national territorial boundaries, which kept the countries distinct from each other.

When the European Union was brought into play, it changed the whole order of the nationally demarcated systems. The EU has influenced its member states based on its competences in both a

coercive and a soft manner. New transnational aims and obligations have been introduced. This has also concerned the transport sector. Policies have been developed to link the formerly demarcated domestic transport infrastructures across the member states' administrative boundaries. Many external influences have affected the national systems.

In the following, what has actually occurred as a result of the establishment of the EU will be clarified. Which processes of European integration have taken place? How have they influenced the creation of new governance styles, soft spaces and policies? And finally, how have they influenced cross-border transport?

European integration can be seen as the overarching and main driving process of domestic change within the European member states. It describes the processes of the EU's influence on member states and the ambition to integrate (or not) that has manifested since the EU's establishment. Different integration theories exist that try to explain and predict the further development of integration. The future of European integration is disputed; thus, different theories have been developed. The theories have developed over time and they distinguish themselves in terms of the distribution of the roles and power of the involved actors as well as in relation to the expected outcomes. The theories are important when attempting to understand the relations between the actors involved in EU integration. Furthermore, they facilitate an understanding of how EU policies travel from the supranational level to the subnational level as well as the ways in which they are influenced by the different levels of institutions and actors.

In the following, the theories concerning European integration are presented and analysed step by step with regards to the development of new governance modes, soft spaces and EU policies in order to explain the evolution of European cross-border transport and investigate the European policies. At the end of each paragraph, hypotheses are derived with reference to cross-border transport.

#### Processes of European integration and the creation of new styles of governance

According to the theory of *neo-functionalism*, functional and institutional spillover effects are part of European integration, which renders it a self-reinforcing process that never stops and cannot be reversed. Both types of spillover are strongly shaped by actors from both the supranational and subnational levels - two levels that become important in addition to the national levels of the member states. On the one hand, supranational institutions are established as a consequence of transnational bargaining, while their responsibilities grow with the increase in policy areas. On the other hand, European integration is driven by subnational stakeholders and administrations. Policy networks foster the exchange of information and discourse in policy fields, and they can simplify policy implementation. Through the activities of new stakeholders in European integration, the national levels are expected to lose in importance. Here, governance comes into play. Through European integration, a European political system has been established whose policy making is characterised as a type of multi-governance, which stands for the involvement of actors from the supranational and subnational levels in addition to the traditional national level. They are involved in the development and implementation of most policies. Based on the principle of subsidiarity, however, policies shall only be developed at the EU level when it is necessary and cannot be regulated satisfactorily at a lower level. Therefore, it should be guaranteed that lower administrative levels can develop their own custom-made policies if that is more appropriate.

Applying this theory to the case of cross-border transport, transnational functional bargaining is expected to have led to the development of transport-related policies at the EU level whose relevance has grown over the years. It seems to have been impossible to manage transport development at the national level alone. Therefore, EU transport policies were developed and implemented through multilevel governance, including the European supranational and subnational administrative levels. These levels are expected to strongly influence further integration and policy implementation. The newly created transnational transport policies might transfer further competences and tasks to the supranational level. The TEN-T and ETC policies, however, are not hierarchical and thus are not directly binding. Yet, the TEN-T policy has become more concrete during the second funding period (2014–2020). Still, the implementation of the EU policy objectives is to be ensured through facilitated coordination and incentives. Further European integration and policy implementation are therefore expected to be boosted by policy networks whose creation has been promoted in both the EU TEN-T and ETC policies, for example, in the case of the corridor forums. The influence of the EU policies during the two funding periods, the different administrative levels and policy networks on cross-border transport shall be analysed in the case studies presented in chapter 6.

*Intergovernmentalism* theories consider the **national levels** to still be the **most important actors** in European integration. The supranational level is thought to solely support the national levels and fulfil delegated tasks. The national levels themselves are expected to not adapt themselves, but rather to control European integration. Mutual benefits are the precondition for transnational cooperation. If no agreement is reached, the policy fields remain a domestic responsibility.

As a European Transport and TEN-T Policy has been developed as a shared competence of the EU and its member states, the theory does not seem to fit very well with the practice seen in the fields of transport and Trans-European Networks. Several policy documents have been developed that define transport development objectives for the whole EU. These documents also strongly promote the improvement of cross-border transport. Additionally, many regulations have been developed by the Commission. In particular, the development of the new TEN-T guidelines, which define the priority axes of the European transport network, were mainly influenced by the supranational level. In addition, expert groups were involved. The member states could not choose their preferred tracks, but were instead asked to approve the proposed tracks and guidelines. However, as stated above, the policies are not directly binding, so it remains to be determined in the further analysis the extent to which these policies influence the development of European cross-border transport in practice.

Similar to neo-functionalism, *new institutionalism* also argues for the importance of **new** actors and **institutions**, for example, cross-border cooperation structures or regions, informal rules and policies, while in keeping with the theory of intergovernmentalism, it also argues for the persistence of existing, traditional institutions (the national level) due to the expected strong **path dependences**.

As a result of **path dependent institutions**, the influence of EU policies on domestic policies might be hampered. Furthermore, **transport planning** processes and cross-border cooperation might be hindered by fast assimilation and harmonisation. The relevance of path dependence to the EU policy implementation seen in different member states as well as the consequences for cross-border transport in cross-border regions will be investigated in the case studies presented in **chapter 6**.

The theory of *constructivism* complements neo-functionalism in terms of the influence of soft pressures and processes such as the establishment of a **European identity** and **common values** that further promote integration. Actors are strongly influenced by their surrounding culture. Hence, European integration can proceed preferentially in fields of common interest and common values. European institutions are expected to facilitate the frequent **exchange of information and mutual learning** between member states and thereby achieve an approximation of European cultures.

When conferring these assumptions on cross-border transport, it is expected that the transnational exchange and learning processes in the field of transport – among others facilitated by the TEN-T, but particularly by the ETC policy – contribute to the mutual comprehension of domestic transport practices and the development of common policies and cross-border transport enhancements. In addition, the exchange might have effects on domestic planning cultures and stakeholder contacts across national borders. Such soft processes of convergence in relation to European integration would be beneficial for the establishment of common infrastructures as well as during negotiations about

transport services across borders. However, as these convergence processes are not committed, there is no guarantee of implementation in practice or the alignment of domestic policies and planning approaches. How the two policies have contributed to such soft processes and whether they have had a positive influence on transport practice will be investigated in **chapter 6**.

European integration in the form of a 'condominio' governance style, that is, functional cooperation in flexible European spaces that are independent of national boundaries, can explain the existence of crossborder cooperation processes in cross-border regions. The latter become 'policy entrepreneurs' in the functional fields of the perceived challenges that arise due to inadequate national governance. Such cooperation networks exist in parallel to domestic structures. They are based on soft governance. Soft governance establishes vertical and horizontal networks. Tasks can be governed by actors from different administrative levels and the actors can be involved in different tasks at the same time. Additionally, societal actors can be involved. In this case, cross-border cooperation have been established top-down through the initiative of the higher levels, while some have been developed as grassroots initiatives at the local level. Based on the creation process, the character and the composition of members also differ. Cross-border cooperation is said to contribute to further European integration, as is argued by the theory of *constructivism* through exchange and learning processes as well as aligned development strategies.

Cross-border cooperation has been strongly supported by EU policies, especially by the ETC in relation to fostering learning processes. The aim is to facilitate the **implementation** of several predefined functional **objectives** adopted from sectoral EU policies, for example, the TEN-T and EU Transport policies. These flexible spaces<sup>42</sup> are governed through the cooperation of the **involved states**, which **influence** individual transport development as well. The cross-border cooperation and networking structures combined with the strong **EU support** are expected to foster cooperation in the field of transport, especially when it is perceived as a **border challenge**. The extent to which the ETC policy promotion of the transport-related EU objectives has been successful in supporting their implementation as well as the relevance the ETC policy and funds have had for transport development in transnational 'condominio'-style 'policy-spaces' of cooperation will be evaluated in **chapters 5** and **6**.

Functional cooperation across borders has often led to the spatial demarcation of the scope of cooperation and thereby to the creation of 'new' spaces. The influence of European integration on the establishment of such soft spaces will be analysed in the next section.

## Processes of European integration and the development of soft spaces

The removal of military borders among the European countries was a precondition for the European integration process and the establishment of the EU. Through cooperation processes, the founding members of the EU developed a structure of commonly agreed rules. European integration aims to further **diminish the disparities** between member states in order to further **integrate the domestic systems**. Several EU policy fields have formulated aims to **overcome national territorial boundaries**. The mobility of people and goods across the internal borders (Schengen Agreement) has been facilitated and, as stated above, European Territorial Cooperation (ETC) has fostered **cross-border cooperation**, to name just two aims. The ETC has led to the rapid development of a number of cooperating cross-border regions. Some of them have even been established in the absence of earlier cooperation traditions (O'Dowd 2002). Thus, the financial incentives of the ETC have led to the development of **new boundaries of cooperation**. The **isolation of border regions** at the edges of their national systems was intended to be negated by means of cooperation processes across borders. Consequently, the separating

<sup>&</sup>lt;sup>42</sup> Thus, this idea also relates to the establishment of new territorial boundaries.

character of territorial borders was to be removed and the EU was expected to further **converge** (positive integration). These aims, however, created tensions in relation to the traditional **sovereign administrative boundaries** of the member states. Indeed, the demarcation of national territories is a sensitive subject for member states. Therefore, the EU is often described as an aggregation of cooperating national spaces, which are based on common aims and values, and not as one common European territory. Some cross-border regions, however, were already established soon after the Second World War, and they can be seen as the beginning of European convergence and integration.

The **formal influence** of the ETC and its associated financial incentives on the development of crossborder regions, their internal cooperation and their policies shall be explored in the case of crossborder transport in **chapters 5** and **6**. In addition, the practical contribution of these EU-supported soft spaces to the actual development of cross-border transport shall be evaluated by analysing the exchange and further EU-funded project outputs that are expected to be of added value. The EU's impact shall be compared with the impact of the other non-EU-funded cross-border cooperation attempts in crossborder regions in order to evaluate the overall contribution of EU policy.

The **regular exchange in European policy making** is said to have promoted functional and further relational cooperation across borders. Cross-border regions, as well as macro-regions and corridors, are known as soft spaces, which are **functionally and territorially demarcated**, but cover **other** than the **traditional administrative boundaries**. Soft spaces offer the opportunity to integrate additional actors and spaces that formally belong to other administrative boundaries into cooperation in fields of common interest. The desire to **implement common visions** for a certain territory is said to be a reason for the territorial demarcation of a functional boundary. These new structures require the creation of **new governance scales**. To become politically recognised as well as more stable, these boundaries have to involve the concerned actors or inhabitants. Territorial and relational spaces are said to co-exist, overlap (as in the case of soft spaces) and mutually influence each other. Further, cross-border regions show many different characteristics and thus are diverse in terms of their scope, organisation, history, members, aims etc. Taken together, they shape the boundaries of the EU.

Soft spaces – be they transnational regions or corridors – are expected to arise in the field of crossborder transport in order to foster exchange with actors from the other side of the national border and develop common strategies etc. within certain territorial boundaries. Furthermore, the establishment of soft spaces might be used as a **political instrument** to demonstrate the need and will to cooperate across administrative boundaries as well as to develop better transport infrastructure or services within a predefined space. As these soft spaces are very diverse, their characteristics and initial situations are considered to influence their ability to enhance cross-border transport. The contribution of these different forms of soft spaces to cross-border transport will be evaluated in **chapters 5** and **6**. Furthermore, the extent of which these **overlapping soft spaces** (e.g. macro-regions and corridors) and traditional administrative spaces influence cross-border transport within smaller cross-border regions will be investigated.

The above-mentioned reterritorialisation processes might lead to a rethinking of the distribution of domestic spatial planning tasks and competences. Despite these processes, the administrative boundaries of the **member states** are said to **remain important**, since EU policies are developed and implemented by the member states for their jurisdictions. Additionally, the national administrative levels of the member states remain the **competent bodies** in relation to many political decisions. Thus, the newly arisen spaces do often lack the **power** to become active independently of the responsible domestic institutions. In particular, examples of cross-border cooperation that were established solely for the management of EU funds are said to be unnatural because they lack a profound basis for cooperation and mutual relations. Therefore, they are not expected to be sustained following the end of the funding

nor are they expected to develop stable cooperation. The growing number of examples of traditionally developed cross-border cooperation, however, mirrors the blurring of traditional administrative boundaries in favour of more natural, **subnational** functional boundaries.

Cooperation across administrative borders in the field of transport might foster the **alignment** of bordering **transport planning systems** and ease the coordinated construction of cross-border transport infrastructures. Still, different domestic planning systems and competences are expected to lead to barriers to cooperation. The contribution of ETC- and TEN-T-supported cooperation to this potential will be investigated in **chapter 6**. Cooperation structures that have a **historic basis** are expected to be more stable as well as to foster cross-border transport more sustainably than cooperation initiated by the ETC. As stated above, the importance of subnational traditional cooperation initiatives and the maturity of the cooperation are to be taken into account when comparing their influence to the influence of cooperation supported by the ETC and TEN-T policies on cross-border transport.

In the next section, the influence of EU integration on policy making and especially those EU policies relevant to cross-border transport will be presented.

#### Processes of European integration and EU policy making

The theory of *neo-functionalism* argues that European integration is a self-reinforcing process driven by **functional spill-over** effects. Thus, agreement on transnational cooperation in one policy field and the adoption of common aims lead to cooperation and **policy making** in further necessary fields. The exploitation of opportunities in new fields of cooperation additionally uncovers insufficient structures and evokes new needs. This provokes the development of more policies. If these policies turn out to be insufficient, this will result in pressure to begin further complementation. New needs arise that lead to the further concretisation of policies. Good experiences are expected to further encourage integration so that the process will be sustained.

This theory can also be used to explain the process and reasons why cross-border transport has become relevant within the EU. As presented in chapters 3 and 4, the EU transport and TEN-T policies came to the fore because they were needed for the fulfilment of other EU aims, such as the completion of the European Single Market. In this context, the EU was forced to develop new policies that support cross-border transport in order to achieve its original aim. The stronger crossing of national borders, for example, evokes the need to improve existing transport infrastructures. The EU policy documents refer to general EU policy objectives such as CO<sub>2</sub> neutrality in order to explain the need for new transport measures. Additionally, strong cross-border flows are adduced as a reason for the promotion of infrastructure and service improvements. The ETC policy was developed to contribute to the implementation of the objectives of sectoral policies, for instance, in the field of transport, in territorially disadvantaged spaces as well as to contribute to European cohesion, since this was challenged.

Marshall argues that domestic systems might be shaped by the growing influence of the EU in sectoral **fields** such as transport. Evoked by sectoral EU interference, states might feel the need to adapt their systems and **shift competences** to different levels that are considered to be more appropriate (Marshall 2014, 18). The EU transport policy and the definition of the TEN-T throughout the EU territory are said to be examples of the **rescaling of government** and the stronger role of the **supranational institutions**. Prior to 2008, large-scale infrastructure planning mainly took place at the national levels of the member states. Since then, the European Union has put significant effort into the renewing of the Trans-European Networks policies (ibid., 1).

The actual effects of the TEN-T policy on the member states' transport development in general and particularly on the promotion of cross-border transport as envisioned in these two EU policies on cross-border transport practice will be analysed in the two case studies presented in **chapter 6**. Further, the policy documents from the two different funding periods will be differentiated.

The TEN-T and ETC policies are managed in the **shared competence** of the EU and its member states. The European Commission proposes the policies, while the European Parliament and the Council have to then agree. The ETC is adopted by qualified majority voting as being part of the Cohesion Policy. The TEN-T policies have to be adopted unanimously because they directly concern the territories of the member states. According to the theory of *neo-functionalism*, the policy fields influence each other significantly. Therefore, EU policies should be **coordinated** and coherent. However, due to the different focuses, the coordination of the two policy fields is difficult. There are no formal procedures for the coordination of EU policies at the EU level.

Both policies promote the enhancement of cross-border transport and they are therefore expected to strongly facilitate it. Still, the two policies have different focuses. These, however, should not be regarded as a problem. Instead, the two policies should complement each other. In the current funding period (2014–2020), the policy documents concerning the two policies have regularly referred to each other, which might be a step in the right direction. Whether or not this has led to coordination in practice will be explored in relation to the policies' practical implementation in sections 6.3.5 and 6.4.5.

The next section summarises the approaches that attempt to evaluate the influence of EU policies and explains which factors are decisive for policy implementation. Based on this, the further steps of this research project are defined.

#### Implementation of EU policies and their influence on cross-border transport

Top-down **Europeanisation** describes the processes that are expected to influence the member states through influences on the supranational level, for example, the adoption of a new EU policy. The outcomes can be more or less visible. The member states might develop a new domestic policy or the domestic distribution of power might be amended (institutional transfer). Less visible influences include changed believes and values that have been developed through learning processes and identity building (ideational transfer). Further, EU policies can also have no impact at the domestic level. According to Europeanisation theories, EU policy transfer and implementation research, the **character of a policy** determines the degree to which as well as the way in which the policy is implemented. The **concreteness** of the policy and the degree of **obligation** are also relevant. Often, EU policies are defined very broadly and not concretely. In this case, it is likely that the implementation through the member states will differ strongly because the EU leaves room for domestic interpretation. A low level of policy pressure is expected to minimise the EU policy influence.

As both analysed policies are within the shared EU competence, the member states are responsible for the policies' implementation. The TEN-T and ETC policies are **non-hierarchical policies** and the implementation of their objectives is not directly binding. The EU cannot dictate the development, but instead relies on indirect pressure to ensure the implementation of policies. Furthermore, the objectives of the ETC in particular are not formulated concretely. The TEN-T policy, however, defined concrete priority projects as well as a core and comprehensive transport infrastructure network to be implemented. The new TEN-T corridor axes that were introduced during the funding period 2014–2020 were developed at the supranational level, thereby involving further subnational actors, for example, experts (organisational spillover). The member states have stayed relevant because they had to adopt the new regulations, although they were not directly involved in the planning stage. Thus, the definition of the core network axes at the supranational level might be one step towards future (transport) planning at the supranational level, a **redistribution of planning competences** and a higher degree of **pressure** of the policies.

In addition to the predefined implementation process of formal policies, policies can be implemented and contribute to Europeanisation without top-down pressure, but rather through **facilitated coordination** processes of voluntary **learning processes**, as argued by the *constructivist* European integration approach. Here, the so-called 'discourse communities' or 'norm entrepreneurs' can develop following the exchange of attitudes and practices that share a common view in certain policy fields and thus implement the policies in their domestic spheres. Through these learning processes, policies can also skip the national level and be directly implemented at the subnational or transnational level (constrained policy transfer). **Financial incentives** further increase the probability of implementation.

The ETC policy in particular facilitates learning and exchange processes, while the TEN-T policy has introduced new transnational bodies for exchange and coordination as well that might have a similar effect and thereby influence both transport development and spatial planning (ibid., 18). Both policies offer financial support to make it more attractive to implement the EU objectives. In relation to the ETC, the member states have to develop multi-annual strategic agreements with the European Commission. Afterwards, sub- and transnational programme authorities are responsible for defining, respectively, the Operational and Cooperation Programmes for the cross-border regions that determine regional objectives. In the case of the TEN-T policy, in contrast, the management of calls for applications and the choice of projects are organised by a supranational agency of the European Commission. The influence of both approaches on cross-border transport will be investigated in chapters 5 and 6.

Although both are non-hierarchical policies, differences exist that might lead to different policy influences on cross-border transport and European integration.

The analysis of the two policies has shown that the **ETC policy** fits very well with the **constructivist** approach because it is primarily designed for the promotion of learning processes. Learning processes might also lead to the convergence of planning cultures and practices. Due to the soft character, there is no guarantee of the implementation of the policy's objectives. The policy's influence is hence difficult to measure. The **TEN-T policy** appears to be an example of the **neo-functionalist** approach because it was developed from earlier transport policies and steered strongly by supranational stakeholders, while the role of the member states seems to have decreased, particularly during the current funding period (2014–2020). Furthermore, fairly concrete objectives were defined. Therefore, the achievement of the objectives might be more tangible than the influence of the ETC. The validity of both hypotheses and both policies' influence will be investigated in the case studies presented in **chapter 6**. Additionally, the soft influences will be explored through interviews.

Although the character of the EU policies already allows the opportunity to roughly estimate the influence of a particular EU policy, the real impact is strongly influenced by **initial domestic conditions**, including the **political, social and economic situation**, the **culture** and the **stakeholders** that are involved in the policy field at a domestic level as well as those responsible for the implementation. Furthermore, the timing of the policy and the domestic policy processes that influence the motivation to adapt as well as the domestic policy belief systems are relevant. Additionally, the 'goodness of fit', that is, the degree of necessary adaptation of the domestic level of the policy, influences the policy pressure on the domestic system. If the policy corresponds to the domestic policy already in place, then no change is expected – a certain mismatch is necessary to evoke domestic change. If the policy strongly contradicts the national policy but is not a hierarchical policy, the probability of implementation is also low. Thus, an EU policy is likely to be implemented in cases with intermediate adoption requirements. Therefore, the existing **domestic institutions** strongly influence the implementation of a policy. Thus, the influence of an EU policy depends on each **individual case**.

In this dissertation, the influence of the two EU policies on cross-border transport is explored, which is not a national but rather a transnational issue, while the initial situations of several member states involved and their domestic differences are also taken into account. This renders the analysis even more **complex**. The 'goodness of fit' approach cannot be applied in this dissertation because it involves an *ex-post analysis of the implementation. Still, the other factors that describe the initial situations are to be taken into account.* 

Due to the above-mentioned variety of the cross-border regions, the following checklist (see **Table 17**) will be used in the forthcoming case study analysis to characterise the initial situation of the cases.

#### Table 17: Checklist: Decisive characteristics of the cross-border regions and their internal cooperation

- Historic roots of cooperation; already in place prior to INTERREG funding?
- Degree of institutionalisation of cross-border cooperation.
- Establishment of the cross-border region: bottom-up or top down and political construction or lived reality?
- Territorial organisation of the involved authorities: federalist/centric state?
- Time since border opening (EU accession) of both countries.
- Size of the cooperation area.
- Structure of the CB region (polycentricity vs. centrality).
- Distance between border villages/cities.
- Population density.
- Demographic situation.
- Economic situation of the border regions.
- Disparities between the border regions and attractiveness of the neighbouring regions.
- Topographical situation at the border (natural borders?).
- Degree of cross-border mobility (commuters).
- Condition of transport infrastructure and services across borders.
- Influence of larger cross-border regions (macro-regional strategies, transnational projects).

Source: Author, Kaiserslautern, 2017.

Top-down impact analyses can be applied to compare the planned influence with the actual influence of an EU policy. Hence, the **formal implementation** in domestic policies and the **practical implementation** of the defined policy objectives are explored. This approach is to be applied in the following analytical part of the dissertation. The analysis will also take into account the transport-related objectives of the residual Transport and Cohesion Policy documents, which potentially influenced the TEN-T and ETC policies, in order to better evaluate the influence of the EU policy transport discourse on member states.

## Interim conclusion

To conclude, European integration has changed the original isolation of European countries as well as created favourable starting conditions in terms of new governance styles, soft spaces and EU policies for the establishment of cross-border transport through complex processes. The two investigated policy fields, namely the TEN-T and ETC, both show high potential to influence cross-border transport.

As the EU policy implementation is strongly dependent on domestic conditions, several case studies will be conducted in **chapters 5** and **6** in order to evaluate the EU policies' influence on cross-border transport.

# Part 2: Implementation & Influence



Chapter 6 Implementation of European policies in European cross-border regions – Contribution to cross-border transport

Interim Conclusion II: Influence of EU policies on cross-border transport

## **5** Implementation of the ETC and TEN-T Policy in Soft Spaces: Influence on Cross-Border Regional and Corridor Policies

The fifth chapter analyses the influence of the TEN-T and ETC policy on EU-made soft spaces and their policies. The EU INTERREG cross-border regions and TEN-T priority projects and corridors are explored in terms of their promotion of transport-related EU objectives and especially the promotion of cross-border transport. Thus, the analysis forms the first part of the implementation analysis – an intermediate level between the EU and the member states.

First, the transport strategies and objectives of the cross-border regions which benefit from ETC are presented and compared to the EU transport policy objectives. This includes the 50 respectively 53 cross-border regional and ten respectively 12 transnational INTERREG programmes that were developed for the funding periods 2007-2013 and 2014-2020.

Second, the objectives of the TEN-T priority projects (2007-2013) and core network corridors (2014-2020) are explored and compared to the EU policy objectives.

The third part of this chapter analyses the influence of European policies on cross-border transport based on nine case studies. Based on the analysis of the TEN-T corridor strategies and ETC-Programmes, which was presented before, nine case studies are chosen for the further analysis: One cross-border region per corridor. The information is based on written surveys conducted with relevant stakeholders of the cross-border region and the TEN-T corridor concerned and further statistical background information on the cross-border regions. Based on the information gained in the first step of the analysis a well-founded decision can be taken for the final choice of in depth case studies analysed in the next chapter.

# 5.1 Transport strategies and objectives of ERDF funded cross-border regions (ETC)

This chapter presents an overview of the transport strategies and aims of all cross-border regions funded in the European Territorial Cooperation, either in the so-called cross-border cooperation (INTERREG A) or in the transnational cooperation (INTERREG B), by analysing their Operational Programmes from the last funding period (2007-2013) and the Cooperation Programmes of the current funding period (2014-2020). Only the sections on mobility and transport development of the Operational/Cooperation Programmes are analysed.

The Operational Programmes respectively Cooperation Programmes of the INTERREG A and B crossborder and transnational cooperation areas choose certain EU policies' aims based on the needs of each respective cross-border region.

According to Nagelkrämer the INTERREG A programmes are strongly shaped by domestic stakeholders as they are developed and implemented in a cooperation of regional and local stakeholders of the involved member states together with partners from local public authorities and public society as well as social and economic partners as it is defined in the respective EU regulation. National stakeholders coordinate the formulation of the programme's aims and priorities. Thereby the integration of the national transport aims is said to be ensured (Interview Nagelkrämer 2016; 2016; 2016; Interview Brol 2016).<sup>i</sup> Like in INTERREG A, the establishment process of the INTERREG B Operational and Cooperation Programmes is said to involve national as well as regional stakeholders which commonly decide about the cooperation area's objectives (Interview Ritt 2016). The different national ministries, including the transport ministries, are involved in the development of the programmes as members of the monitoring committee. The committee also decides about the distribution of funds and has to take an unanimous decision (Interview Ritt 2016; Interview Wierzbicki and V. Griekere 2016). Before

participating in the monitoring committee, the national representatives synchronize themselves with other domestic national and regional stakeholders of their country in national committees. Thereby also regional transport aims were taken into account (Interview Ritt 2016; Interview Nowicki 2016; Interview Diehl 2016; Interview Wierzbicki and V. Grieķere 2016). According to Diehl, INTERREG shall contribute to the implementation of the aims of regional spatial development plans. Therefore it is considered to be very relevant to coordinate the regional aims in the cooperation programme (Interview Diehl 2016).

The final programme is said to be usually based on the highest common denominator of aims because of many different regional aims and focuses. However, in the field of transport the partner countries are said to share common EU objectives like the reduction of  $CO_2$  emissions and sustainable mobility so that the countries' aims would not contradict each other. Still, the allocation of funds to the different aims might differ (Interview Straehli 2016).

The EU influences the transnational INTERREG A and B programmes by defining the basic guidelines for the programmes (Interview Brol 2016; Interview Diehl 2016). In addition, the European Commission is involved in the development of the programmes (Interview Wierzbicki and V. Grieķere 2016). Kurnol thinks that INTERREG in general has been influenced more strongly by the TEN-T policy and the European transport policy aims than by the domestic transport policy aims because of the European perspective of INTERREG (Interview Kurnol 2016).

In the following, first, the INTERREG A programmes are analysed for both funding periods, afterwards the aims and strategies of the INTERREG B programme areas towards transport development are presented.

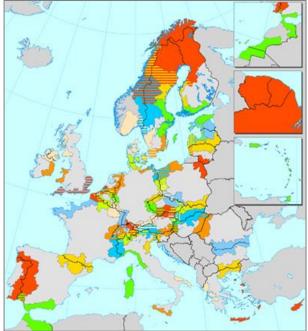
## **5.1.1** Cross-border cooperation (INTERREG A)

The programmes of the two funding periods are presented in the chronological order.

## **INTERREG A Operational Programmes 2007-2013**

Between 2007 and 2013 60 cross-border cooperation programmes were funded by the ERDF (European Commission 2015c)(see **Image 7**).

Image 7: Scope of the INTERREG IV A cross-border regions (2007-2013)



Source: European Commission n.y.g

In the following the 50 Operational Programmes located at the European continent are investigated (see Table 18). The residual programmes are considered to have a limited relevance for cross-border transport and not to be influenced by the TEN-T. Only Operational Programmes of the EU member states are investigated, no IPA programmes.

01Austria-Czech Republic26Greece-Cyprus02Austria-Hungary27Greece-Italy03Austria-Italy28Hungary-Romania04Austria-Germany/Bavaria (Bayern-Österreich)29Hungary-Slovakia05Belgium-France (France-Wallonie-Vlaanderen)30Italy-France (Maritime)06Belgium-Germany-The Netherlands (Euregio Meuse-Rhin)31Italy-Malta07Belgium-The Netherlands (Vlaanderen-Nederland)32Italy-Slovenia08Czech Republic-Poland33Italy-Switzerland09Czech Republic-Slovakia34Latvia-Lithuania10Denmark-Germany (Fehmarnbelt-Region )35Lithuania-Poland11Denmark-Germany36Poland-Denmark-Germany-Lithuania-Swet (South Baltic)12Estonia-Latvia37Poland-Germany/Brandenburg (short: Brandenburg-Lubuskie)13Finland-Estonia-Latvia-Sweden (Central Baltic)38Poland-Slovakia	
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15France-Belgium-The Netherlands-United Kingdom (Two seas)40Slovakia-Austria	
16France-Germany-Switzerland (Oberrhein)41Slovenia-Austria	
17France-Italy (ALCOTRA)42Slovenia-Hungary	
18France-Switzerland43Spain-France-Andorra	
19   France-United Kingdom (Manche/Channel)   44   Spain-Portugal	
20Germany/Bavaria-Czech Republic45Sweden-Denmark-Norway (Öresund-Kattegat-Skagerrak)	
21 Germany/Mecklenburg-Vorpommern- Brandenburg-Poland 46 Sweden-Finland-Norway (Botnia-Atlantica)	
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Source: Author, Kaiserslautern 2017.

The analysis is based on the Operational Programme documents. Because of language constraints four Operational Programmes of the funding period 2007-2013 could not be analysed in depth (Greece-Cyprus, Czech-Republic-Poland, Italy-Switzerland, Italy-Slovenia). Furthermore, not all Operational Programmes defined a description of the transport's status quo of the cross-border region. In these cases the analysis relied on short summaries of the programmes' aims and expected outcomes published by the European Commission or on the respective homepages of the programmes.

In the following, the transport situation of the two programmes *France-Belgium-Germany-Luxembourg* (*Greater Region*) and *Poland-Germany/Brandenburg* (*short: Brandenburg-Lubuskie*) and their relation to transport development is presented. The other programmes' relation to transport can be found in the **appendix**.

## <u>France – Belgium – Germany – Luxembourg (Greater Region)</u>

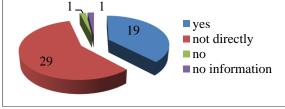
The Greater Region is crossed by two main TEN-T corridors which congests the transport network of the region. The network is not efficient enough. Additionally, the growth of commuters contributes to a stronger congestion. In mid 2007 the TGV network was linked to the region. Inland waterways should be used more often for freight transport. The Greater Region has several international airports. The offer should be better coordinated though to improve the overall offer. The internal rail network is not very efficient. The usage of public transport services is very low. The offer needs to be improved especially across borders. The cooperation and coordination between domestic actors needs to be supported. The timetables and tariffs of the cross-border public transport services need to be adjusted and information about them should be accessible. To contribute to the cross-border economic development of the region also transport improvements can be funded: the new TGV connection should be used to improve the cross-border infrastructure. Furthermore, freight terminals can be supported. To contribute to the spatial development of the Greater Region, the mobility is to be improved. Internal and external (to the European Metropolitan regions) accessibility are to be enhanced. The network should be appropriate for working commuters but also allow cross-border freetime travelling. Especially local cross-border public services are to be improved Environmental friendly modes shall be supported and the network should become more interoperable. Intelligent transport systems are to be applied. Cross-border car-sharing offers and the establishment of bicycle and hiking trails shall be supported (Interreg Großregion 2011, 31f., 51, 55).

## Poland – Germany/Brandenburg (short: Brandenburg-Lubuskie)

The accessibility of the cross-border region between Brandenburg and Województwo Lubuskie (Germany and Poland) is considered to be insufficient although several investments were made earlier. The road network differs between the both domestic parts of the region. Brandenburg has more national roads whereas Lubuskie has more regional roads. The cross-border area is divided by rivers and not enough border crossings exist. Even the larger cities do not show a high level of accessibility from the inside and the outside. The public cross-border transport services are not sufficient. Therefore the cross-border infrastructure needs to be improved and should be planned bilaterally. Therefore one priority is dedicated to the improvement of infrastructure: "*Förderung der Infrastruktur und Verbesserung der Umweltsituation*". The cross-border transport connections are to be expanded on all transport modes except of air transport and made safer. The transport network should be linked to the TEN-T. Instead bicycle transport is to be supported. Public transport services are to be established. They should be multimodal (bus and train), environmental- and user-friendly and should be coordinated bilaterally. Multimodal logistical terminals for cross-border transport are to be established (Land Brandenburg 2008, 13ff., 45ff.).

The analysis of all INTERREG IV A Programmes shows that 50% of all INTERREG IV A Programmes have related to the TEN-T. A higher percentage - 94% - mentioned cross-border transport. 38% of the programmes defined an own transport priority (see **Figure 36**). Only one programme excluded the contribution to the transport development. The residual programmes (58%) promote transport objectives within other priorities.

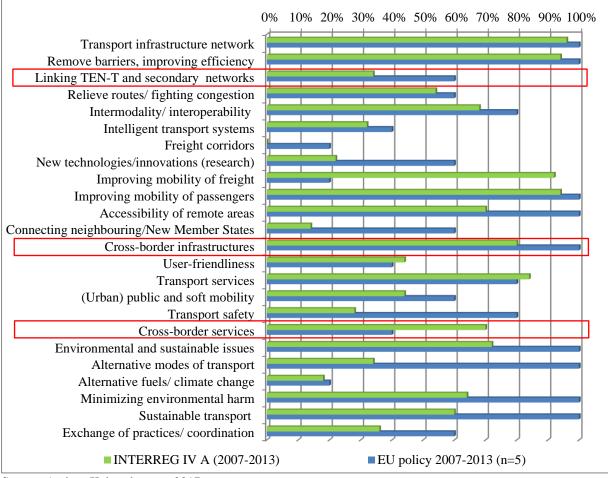
#### Figure 36: Definition of transport priorities in the INTERREG IV A programmes (2007-2013)



Source: Author, Kaiserslautern, 2017.

As can be seen in **Figure 37** the programmes contribute to the high variety of EU transport objectives except of the development of freight corridors. The objective promoted least was mentioned by seven of 50 programmes. 34% of the programmes promote the linkage of TEN-T and secondary networks which is below the promotion in the EU policies. 70% promote the enhancement of cross-border services and 80% of cross-border infrastructures.

Despite the reference to the EU objectives their relevance seems not to be related in every case to the promotion of these objectives in the EU policies.



#### Figure 37: Contribution of the INTERREG IVA programmes to the EU policy objectives

Source: Author, Kaiserslautern, 2017.

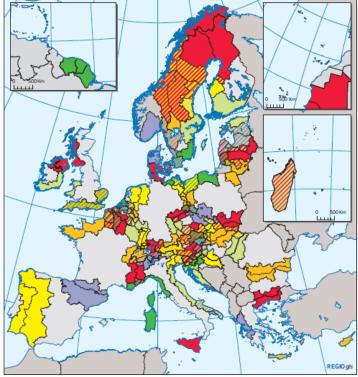
## **INTERREG A Cooperation Programmes (2014-2020)**

Between 2014 and 2020 60 cross-border cooperation programmes are funded by the ERDF (European Commission 2015c) (see **Image 8**). Only the 53 cooperation programmes located at the European continent are investigated (see **Table 19**) because of the other programmes' limited relevance for cross-border transport and TEN-T influence. Only cooperation programmes of the EU member states are investigated, no IPA programmes.

The overview is mainly based on the cooperation programmes. Because of language constraints five Cooperation Programmes could not be analysed in depth (Czech-Republic-Poland<sup>43</sup>; Greece-Cyprus; Italy-Switzerland; Poland-Slovakia and Slovakia-Czech Republic). Furthermore, not all Cooperation Programmes defined a description of the transport's status quo of the cross-border region. In these cases

<sup>&</sup>lt;sup>43</sup> Because of a very low degree of information on the Czech-Polish cross-border region the case was excluded from the further analysis.

the analysis relied on the short summaries of the programmes' aims and expected outcomes published by the European Commission or on the respective homepages of the programmes.





Source: DG Regio 2015.

In the current funding period, the ETC policy allows the cross-border cooperation programmes to support the coordination of transport infrastructure planning across borders and promote the shift to more environmentally friendly and interoperable transport modes. Furthermore, the programmes can support less developed regions in the construction of missing cross-border links if they represent urgent bottlenecks for the cross-border mobility (Interreg Slovakia-Austria 2015b, 25).

In the following, the transport situation and relation to transport development of two programmes France-Belgium-Germany-Luxembourg (Greater Region) and Germany/Brandenburg-Poland (Brandenburg-Lubuskie) is presented. Information on the residual programmes can be found in the **appendix**.

An	Analysed cross-border cooperation regions 2014-2020			
01	Austria-Czech Republic	28	Italy-Austria	
02	Austria-Hungary	29	Italy-Croatia	
03	Austria-Germany/Bavaria (Bayern-Österreich)	30	Italy-France (Maritime)	
04	Belgium-France (France-Wallonie-Vlaanderen)	31	Italy-Malta	
05	Belgium-Germany-The Netherlands (Euregio Meuse-Rhin)	32	Italy-Slovenia	
06	Belgium-The Netherlands (Vlaanderen-Nederland)	33	Italy-Switzerland	
07	Bulgaria-Romania	34	Latvia-Lithuania	
08	Czech Republic-Poland	35	Lithuania-Poland	
09	Estonia-Latvia	36	Poland-Denmark-Germany-Lithuania-Sweden (South Baltic)	
10	Finland-Estonia-Latvia-Sweden (Central Baltic)	37	Poland-Germany/Saxony	
11	France-Belgium-Germany-Luxembourg (Greater Region)	38	Poland-Slovakia	

 Table 19: List of the analysed cross-border region's cooperation programmes

 Analysed cross hander cooperation process 2014 2020

12	France-Belgium-The Netherlands-United Kingdom (Two seas)	39	Romania-Hungary
13	France-Germany-Switzerland (Oberrhein)	40	Slovakia-Austria
14	France-Italy (ALCOTRA)	41	Slovakia-Czech Republic
15	France-Switzerland	42	Slovakia-Hungary
16	France-United Kingdom (Manche/Channel)	43	Slovenia-Austria
17	Germany-Austria-Switzerland-Liechtenstein (Alpenrhein-Bodensee-Hochrhein)	44	Slovenia-Croatia
18	Germany/Bavaria-Czech Republic	45	Slovenia-Hungary
19	Germany/Brandenburg-Poland (short: Brandenburg-Lubuskie)	46	Spain-France-Andorra (POCTEFA)
20	Germany/Mecklenburg-Vorpommern- Brandenburg-Poland	47	Spain-Portugal (POCTEP)
21	Germany/Saxony-Czech Republic	48	Sweden-Denmark-Norway (Öresund-Kattegat-Skagerrak)
22	Germany-Denmark	49	Sweden-Finland-Norway (Nord)
23	Germany-The Netherlands	50	Sweden-Finland-Norway (Botnia-Atlantica)
24	Greece-Bulgaria	51	Sweden-Norway
25	Greece-Cyprus	52	United Kingdom-Ireland (Ireland-Northern Ireland-Scotland)
26	Greece-Italy	53	United Kingdom-Ireland (Ireland-Wales)
27	Hungary-Croatia		

Source: Author, Kaiserslautern 2017.

## France-Belgium-Germany-Luxembourg (Greater Region)

The Greater Region and its transport network are strongly influenced by the largest cross-border flows in the EU because of economic linkages and high job mobility across borders. The environment is burdened (CO2 emissions, noise, air pollution). Several transport infrastructures are congested; many citizens use the private car. Therefore under the first priority axis "Die Entwicklung eines integrierten Arbeitsmarkts durch die Förderung von Bildung, Ausbildung und Mobilität weiter voranbringen" [Foster the development of an integrated job market by supporting education, training and mobility] the job mobility across borders shall be further facilitated and coordinated to ensure a sustainable development. The commuting times between residence and job location are to be minimized and the public transport offer as well alternative transport modes (bicycle, afoot, car-sharing etc.) are to be enlarged. The trip to work shall become more multimodal. The cross-border transport offer should be developed based on the demand and made more visible. Investments in the infrastructure and rolling material can be taken in a limited extent. The high  $CO_2$  emissions in the region are to be minimized. Furthermore, the coordination of synergies and complementarities between the different domestic transport networks shall be fortified and the networks shall become more interoperable in terms of ticketing systems and transport systems. In the second priority axis, the negative environmental effects of transport shall be minimized. Furthermore, sustainable company mobility plans are to be fostered (Interreg Großregion 2015, 9f., 18, 20, 30, 37, 41).

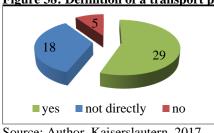
#### 19 Germany/Brandenburg-Poland (short: Brandenburg-Lubuskie)

The cross-border region is crossed from East to West by the North-Sea-Baltic TEN-T corridor. Furthermore, it is connected in the German part by the Scandinavia-Mediterranean and the Orient East Med corridors and in the Polish part by the Baltic Adriatic corridor. The internal road accessibility of the cross-border region has been improved especially in the Polish part through EU investments in the last years. Still, particularly the cross-border sections in the cooperation area are said to be in a poor condition. The cross-border region is separated by the two rivers Oder and Neisse (the so-called Oder-Neisse line). This natural frontier is overcome in the cross-border region by seven road-bridges and four

rail bridges only. Therewith it is feared not to benefit sufficiently by the vicinity of the four TEN-T corridors and instead be only crossed by transit transport. Furthermore, the travel times and comfort are said to need further improvements as well as the rail infrastructure and management. Cross-border transport services are said not to be coordinated and interoperable. Additionally, transport has to become more environmentally friendly. The second priority axis "Anbindung an die Transeuropäischen Netze und nachhaltiger Verkehr" [Connection to the TEN-Ts and sustainable transport] shall focus on the transport development of the region. Through the enhancement of the cross-border road connections, also the connection to the TEN-T shall be improved which is expected to contribute to the region's overall accessibility in the EU and make the region more attractive for people and enterprises. Herewith secondary and tertiary transport nodes shall be linked to the TEN-T by completing missing links. Also cross-border commuters, tourists and commerce shall benefit from the better cross-border infrastructure. Transport planning on the establishment of new bridges shall be coordinated across borders. As second objective, public transport services shall become more popular to reduce congestions and enlarge the accessibility. Services shall especially be improved in twin cities and regional centres. For the maintenance of public transport in rural areas, innovative concepts need to be developed. Cross-border bus connections are especially important to connect train stations on both sides of the border. The information about existing cross-border transport services, common tickets and their marketing is also to be improved. Furthermore, the negative environmental impact of transport (noise, pollution, safety risks) shall be minimized through cooperation and the offer of alternative modes of transport, including electro-mobility and bicycle concepts. This transport focus shall contribute to the sustainable growth objective of the Europe 2020 Strategy and the partnership agreements of the two countries (Interreg Brandenburg-Polen 2014, 9f.,14,16,18,21f.,24,36ff.).

In the current funding period 10%, i.e. five programmes (see Figure 38), strictly exclude transport objectives, which is a higher percentage than in the previous funding period. However, more programmes explicitly promote transport than in the earlier funding period: 56% of the programmes have defined a transport priority. Further 35% of the programmes include transport objectives in other priority areas.

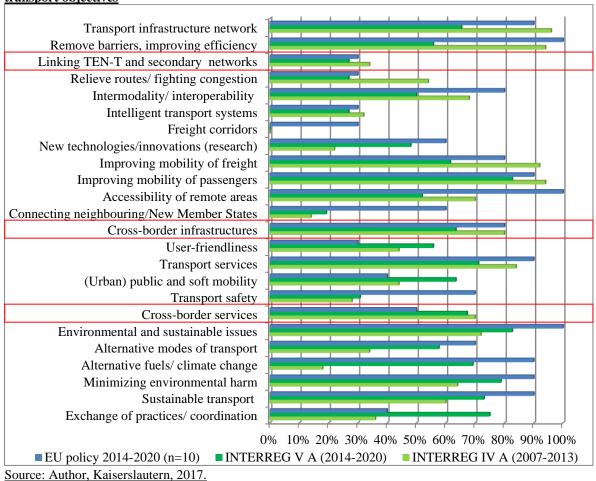
In total 54% of the INTERREG VA programmes have mentioned the TEN-T and sometimes special corridors which is 4% more than in the last funding period. However, only 83% related to cross-border transport which is a lower percentage than before.



#### Figure 38: Definition of a transport priority in the INTERREG IV A programmes (2014-2020)

Source: Author, Kaiserslautern, 2017.

As can be seen in Figure 39 the programmes of the second funding period promote a high variety of transport-related EU objectives like in the previous funding period. Besides freight corridors which are not promoted like in the last funding period the objective which was promoted least was mentioned by 10 programmes. The linkage of TEN-T and secondary networks as well as the other two cross-border transport-related objectives was promoted to a little lower degree than in the last funding period. Also other objectives were promoted less. However, the environmental related objectives were mentioned more frequently in the second funding period 2014-2020. As in the last funding period despite the reference to the EU objectives their relevance seems not to be related in every case to the promotion of these objectives in the EU policies.



## Figure 39: Contribution of the INTERREG A programmes of 2007-2013 and 2014-2020 to the EU transport objectives

## 5.1.2 Transnational cooperation (INTERREG B)

The programmes of the two funding periods are presented in the chronological order.

## **INTERREG B Operational Programmes (2007-2013)**

Between 2007 and 2013 thirteen transnational cooperation programmes were funded by the ERDF (see **Image 9**). In this study only the Operational Programmes of the areas connected to the European main territory are analysed (see **Table 20**). The programmes of the Caribbean Area, Azores-Madeira-Canarias and the Indian Ocean Area are not investigated as they do not represent cross-border transport within the EU.

INTERREG B	Countries involved 2007-2013
Alpine Space	AT, CH, DE, FR, IT, LI, SI
Atlantic Area	ES, F, IR, PT, UK
Baltic Sea	DE, DK, EE, FIN, LV, LIT, PL, SE (+ BY, NOR, RU)
(East) Central Europe	AT, CZ, DE, HR, HU, IT, PL, SI, SK
Mediterranean Area	HR, CYP, FR, GR, IT, MT, PT, SI, ES, UK (+ AL, BA, ME)
North Sea Region	UK, NE, BE, DK, DE, SE (+ NOR)
North West Europe	IR, UK, BE, LUX, CH, FR, DE, NE
Northern Periphery (and Arctic)	FIN, IRE, UK, SE (+ FO, GL, IS, NOR)
South East Europe	IT, AT, SI, HR, HU, SK, RO, BG, GR (+RS, ME, UA, MD, MK, BA, AL)
South West Europe	PT, ES, FR, UK (Gibraltar) (+AD)

Table 20: List of the INTERREG B th	ransnational cooperation	programmes 2007-2013
Table 20: List of the http://www.	anshauonai cooperation	programmes 2007-2015

Source: Author, Kaiserslautern 2017.

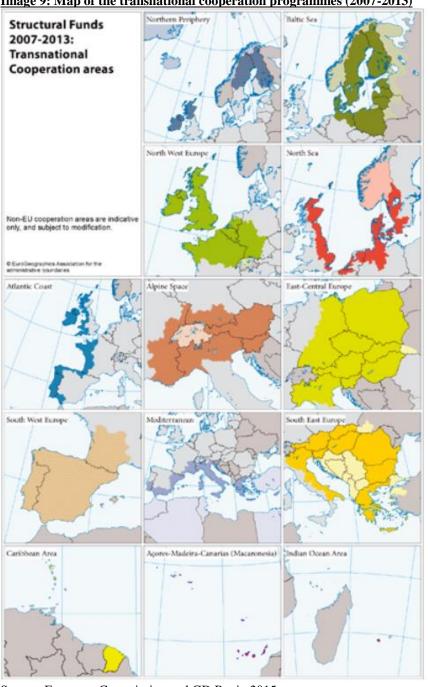


Image 9: Map of the transnational cooperation programmes (2007-2013)

Source: European Commission and GD Regio 2015

The aims of the three programmes Baltic Sea, (East) Central Europe and North West Europe in the field of transport and the cooperation areas' status quo in the field of transport are presented in the following, based on the information given in the respective Operational Programmes. The residual programmes' aims can be found in the appendix.

## Baltic Sea

The Baltic Sea Region entitled its priority connected with transport "External and internal accessibility of the BSR". Because of the Baltic Sea, not solely land transport is relevant but also waterways are very important. The Baltic Sea separates the Baltic Sea Region and can be seen as a barrier but also as a transport mode. The transport system looses in density to the north in the sparsely populated areas of the Baltic Sea Region. In the north and the east the accessibility needs to be improved especially within

the region. Long distances between north and south lead to long travel times also internationally. A comprehensive multi-modal transport system shall be developed that links the different national systems and implement innovative solutions. Besides the TEN-T projects in the area, the Baltic Sea Region shall improve the accessibility between its countries also on secondary networks, linked to TEN-Ts, to the EU and to the neighbouring countries of the BSR. Inland waterways are not connected effectively. Transport shall be transferred from congested roads to sea based transport that can easily access remote areas as well. The interregional air transport is not satisfactory and shall be enhanced. The programme proposes to establish 'transnational development zones' that shall develop areas close to transport corridors to make use of this potential. Transport between urban and rural areas shall be improved. The implementation of motorways of the sea can be supported. The usage of alternative fuels and transport modes as well as sustainable urban public transport systems is to be tested. Missing links on transnational corridors across borders shall be established (Baltic Sea Region Programme 2007-2013 2012, 16, 28ff., 35 and 59ff.).

#### Central Europe

Central Europe addresses transport issues with its priority "Improving Accessibility of and within Central Europe". The quality of the transport system varies strongly between each member state and region involved in the Central Europe Programme. The newer Eastern European member states are less developed than the older member states. The transport systems still focus very much on the traditional domestic systems and the networks are not connected very well across the borders and have very different priorities. There are several regions in the periphery and at national borders that are not connected well with the European transport system. The environment is to be relieved. The internal accessibility within the whole programme area and to the outside is strongly supported by the TEN-T priority projects and motorways of the sea. Additionally, Central Europe has borders to non-European countries. Here also transport axes to the neighbouring countries influence the area. Still the TEN-T network within Eastern Europe is lagging behind and needs further support. Especially the rail network needs to be enhanced to relieve the roads especially for freight transport. Further potential is seen in the usage of inland waterways for trade and transit transport. As Central Europe is also connected to the Adriatic and Baltic Sea, sea ports are a relevant factor of accessibility. Regional ports are to be supported by coordinating their development and avoiding competition between them. Public transport is not very effective in all parts of Central Europe. Especially border areas lack good cross-border infrastructure and services. In extreme cases there is even no connection to the neighbouring country. The number of road accidents is very high in Central Europe and should be minimized. The TEN-T corridors shall be interlinked and integrated into the existing system. Furthermore, they should be amended. Existing bottlenecks shall be vanished and sea ports connected. The transport system shall become more sustainable and efficient in connecting remote areas with central areas and managing congestions in urban areas. The transport modes should be interconnected. It is seen as a prerequisite that different administrative levels are coordinated in their transport policies. Innovative transport management systems shall be used to develop multi-modal logistical chains. The transport system should be environmental friendly. The use of public transport in cities should be enlarged and alternative modes of transport improved. Additionally, the transport projects should be energy-efficient (Central Europe Programme 2012a, 22ff. 64ff.).

#### North West Europe

"Improving connectivity in NWE by promoting intelligent and sustainable transport and ICT solutions" is the title of the transport priority of North West Europe. In North West Europe the accessibility level varies strongly b (INTERREG IVB NWE n.y.v, 74ff.)etween the core and the periphery. The core is congested. The periphery needs innovative ideas to provide a higher accessibility and public services.

Cross-border transport connections and services need to be improved as well as transnational transport corridors. The region is also characterized by transit transport flows. Additionally, the sea that divides the cooperation area in two parts is still seen as a barrier. Sea transport and inland waterways needs to be improved. The negative environmental influence of growing transport is to be minimized and transport made more sustainable. Intelligent transport systems shall contribute to this aim by making the existing transport infrastructure more effective and safer. The different domestic systems shall become more compatible. Alternative transport modes to the road shall be supported and bottlenecks relieved. Furthermore, logistical processes need to be optimized and the interoperability between different transport modes improved. Passenger as well as freight transport is to be improved. The economic potential from transport corridors shall be used by the regions crossed by connecting the transmational network to secondary network. The national and regional systems should be coordinated. Regional ports and airports are to be supported and made more accessible with other transport modes (ibid., 73ff.).

As the ERDF regulation for 2007-2013 laid down that the European Territorial Cooperation should contribute to a higher accessibility within the EU, in all cases analysed except one, the Operational Programmes defined the priority to contribute to the EU's transport development in the form of 'accessibility' in their main priorities. Solely the Northern Periphery Programme mentioned 'accessibility' as a sub-field.

Partially the documents directly refer to other transport or environmental related policy documents and take up their aims such as the White Paper on European Transport and the TEN-T priority networks. 50% of the documents refer to the TEN-T whereas 80% relate to cross-border transport. Thus they react on further policies besides the EU cohesion policy.

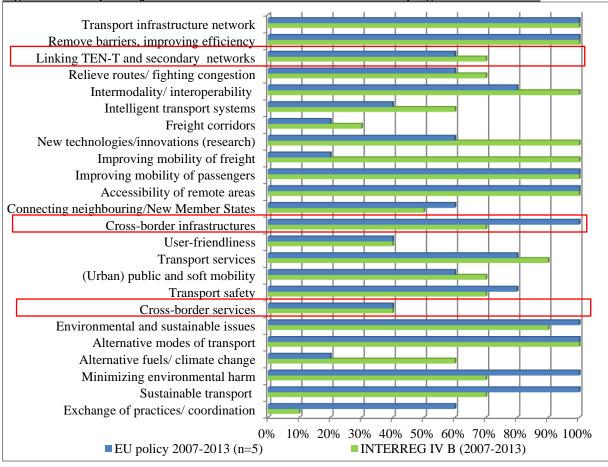
**Cross-border infrastructures** and the linkage of TEN-T and secondary networks are promoted to a relatively high degree. Cross-border services are less relevant.

The transnational programmes do not fund the establishment of large infrastructures but coordination, planning and preparation studies and action plans for such investments. Additionally, they can be a platform for negotiations to apply for other funds and to meet potential partners.

**Figure 40** shows the potential fields of cooperation in the respective transnational cooperation areas, as they have been named in the Operational Programmes. All aims of the EU policies have been mentioned in the programme documents. All promote a better passenger and freight transport. Rarely named in the transnational cooperation programmes was the support of freight corridors, the improvement of user-friendliness, cross-border transport services, a better connection between the neighbouring member states and a higher cooperation and exchange of best practices. The last two points, however, are probably not named explicitly in the field of transport because being the basic aims of European Territorial Cooperation anyway. The promotion is in several objectives similar to the relevance in the EU policies, but not always.

Cross-border infrastructures and the linkage of TEN-T and secondary networks are promoted to a relatively high degree. Cross-border services are less relevant.

The transnational programmes do not fund the establishment of large infrastructures but coordination, planning and preparation studies and action plans for such investments. Additionally, they can be a platform for negotiations to apply for other funds and to meet potential partners.



#### Figure 40: Transport objectives of the transnational INTERREG IV B programmes 2007-2013

Source: Author, Kaiserslautern, 2017.

## **INTERREG B** cooperation programmes (2014-2020)

In the current funding period, one completely new transnational cooperation area was added: the Danube Area, whereas the former South-East Europe programme was split into two separate programmes: the Adriatic-Ionian and the Balkan-Mediterranean programme (see **Image 10** and Table 21).

INTERREG B	Countries involved 2014-2020
Adriatic-Ionian (ADRION)	IT, SI, GR, HR (+ AL, BA, ME, RS)
Alpine Space	AT, CH, DE, FR, IT, LI, SI
Atlantic Area	ES, F, IR, PT, UK
Balkan-Mediterranean	BG, CY, GR (+ AL, MK)
Baltic Sea	DE, DK, EE, FIN, LV, LIT, PL, SE (+ BY, NOR, RU)
(East) Central Europe	AT, CZ, DE, HR, HU, IT, PL, SI, SK
Danube	DE, CZ, AT, SI, HR, SK, HU, RO, BG (+ AL, MD, BA, ME, RS, UA)
Mediterranean Area (MED)	HR, CYP, FR, GR, IT, MT, PT, SI, ES, UK (+ AL, BA, ME)
North Sea Region	UK, NE, BE, DK, DE, SE (+ NOR)
North West Europe	IR, UK, BE, LUX, CH, FR, DE, NE
Northern Periphery (and Arctic)	FIN, IRE, UK, SE (+ FO, GL, IS, NOR)
South West Europe	PT, ES, FR, UK (Gibraltar) (+AD)

Source: Author, Kaiserslautern, 2017.

The three areas, not connected to the European continent are not considered in the analysis like in the presentation of the earlier funding period. The aims of three programmes of the Baltic Sea, (East) Central Europe and North West Europe are presented in the following. The residual ones can be found in the **appendix.** 



Image 10: Map of the transnational cooperation programmes (2014-2020)

Source: European Commission and GD Regio 2015.

#### **Baltic Sea**

The Baltic Sea sees the region's accessibility as a key challenge of its cooperation area because of long distances between the subregions, peripheral, little populated regions with low transport infrastructure quality and difficult geographic conditions. Especially the northern and eastern parts of the region have a low accessibility. Furthermore, the national transport systems are not fully interoperable because of different domestic regulations and standards. Also, the TEN-T networks are said neither to be sufficiently interconnected nor connected with secondary or tertiary networks of the regions. Transport shall become more sustainable and adapt to the needs of an ageing population. On the Baltic Sea maritime transport is very important and growing. In this respect, the natural resources of the Baltic Sea are to be saved by cooperating even stronger in common safety standards. The sea transport should be linked to the inland waterways to increase the accessibility of the hinterland. Furthermore, the transport within cities is to be enhanced and the  $CO_2$  emissions are to be minimized. Because of the transport's high relevance for Baltic Sea, the cooperation programme defined an own priority 'sustainable transport' in this field which supports both passenger and freight transport. The aims are to better integrate the TEN-T corridors into the region and connect them with the secondary and tertiary networks. The transport shall become more interoperable, intermodal and therewith more efficient and environmental friendly. Intelligent and innovative transport information and support systems shall be applied. Remote areas shall be made more accessible and linked to urban centres. Furthermore, maritime services and safety are to be improved and the nature preserved. In urban centres environmental friendly mobility shall be enlarged (Interreg Baltic Sea Region 2015, 7f., 12ff.).

## (East) Central Europe

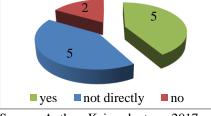
The cooperation area of the Central Europe programme shows a bifid picture of the transport conditions: the western part has high potentials for multimodality whereas the eastern and peripheral regions are

less efficient. Therefore, secondary networks are to be supported to connect the main transport routes and urban concentrations with the regional and local networks. Sustainable freight and passenger transport needs to be enlarged, especially in cities to reduce  $CO_2$  emissions and to be more environmentally friendly. Especially the new member states need to improve the interoperability and multimodality of their transport systems. Public transport services shall be upgraded and promoted. Cross-border sections are in poor conditions in peripheral regions. To improve the transport situation the cooperation programmes focuses in its fourth priority axis on 'Cooperating on transport to better connect CENTRAL EUROPE'. Thereby especially remote areas shall be supported to improve their accessibility. The existence of the European transport networks in the region shall be made use of and connected to subnational infrastructures. Freight and passenger transport shall become smart, multimodal and environmentally friendly. Bottlenecks shall be removed. Transport development is to be coordinated across borders with the different relevant actors to make the transport more effective (Interreg Central Baltic 2014, 10f.,17f.,24).

#### North-West Europe

The region contains several large agglomerations but also rural, less accessible regions. In North West Europe freight transport is mainly concentrated on the roads and contributes strongly to the high  $CO_2$  emissions of the region. North West Europe aims at reducing the energy consumption in the region, especially in the field of transport which is one of the main producers of greenhouse gases. Alternative modes of transport shall be fostered to contribute to a multimodal transport system. Furthermore, passenger and freight transport shall be reduced by developing more sustainable mobility. The environmental harm and emissions shall e reduced. Therefore, transport investments can be taken under the second priority axis "Low carbon" if they contribute to the reduction of  $CO_2$  emissions. More concrete, transnational innovative and intelligent traffic management systems for multimodal logistical chains or passenger flows shall be developed rather than establishing infrastructure. Large infrastructure investments will be ensured by the Connecting Europe Facility. Additionally, e-mobility and other alternative transport systems as well as last-mile services shall be tested (Interreg North-West Europe 2015, 3,8,10f.,14,30,41ff.,88.).

#### Figure 41: Transport priority in the transnational INTERREG V B programmes (2014-2020)

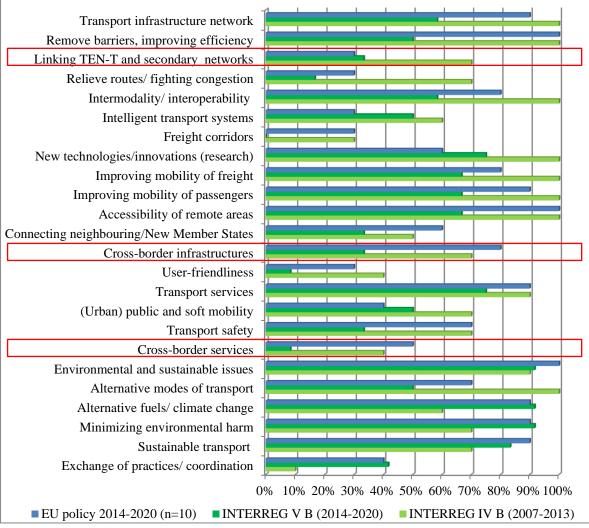


Source: Author, Kaiserslautern, 2017.

Compared to the last funding period (see **Figure 41** and **Figure 42**) several programme areas changed their priorities and objectives. Some mentioned in the cooperation programmes that they reduced the funding range in the field of transport because of missing usage of the funds in the last funding period and in order to avoid doublings with the EU transport policy. As can be seen in **Figure 41** 42% of the programmes defined an own transport priority, 42% support it indirectly and two programmes to support no transport objectives at all. Thereby more programmes defined an own priority compared to the last funding period. In the second funding period the reference to the TEN-T and the relation to cross-border transport (50%) was strongly reduced. Still some corridors were explicitly mentioned.

When looking at the overall distribution of transport objectives in the transnational cooperation programmes in the current funding period (see **Figure 42**), the focus is laid most frequently on the environmental and sustainable dimension of transport. Except of South West Europe, which does not

contain any transport aims in its cooperation programme at all, all other transport programmes support actions to contribute to the provision of alternative fuels or lower  $CO_2$  emissions and to minimize the transport's effects on the environment. Innovative ideas as well as transport services are very often prioritized. Also, the better transport connection between the involved countries and remote areas to the centres are targeted frequently. Very rare or never named issues are freight corridors, user-friendliness of passenger transport and cross-border transport services.



### Figure 42: Contribution of the transnational INTERREG V B programmes to the EU policy objectives

Source: Author, Kaiserslautern, 2017.

Although all objectives except of freight corridors are mentioned, the majority of the programmes focuses on transnational, broader topics instead of local cross-border connections. They often exclude real infrastructure investments. Instead innovative ideas are to be tested for different needs. Capacity, efficiency, intermodality are often named as aspired characteristics of the transport system.

Compared to the last funding period the proportion in the field of transport infrastructure was reduced whereas the environmental and sustainability focus was enlarged. Investments in transport safety have lost in importance. Transport services in general have stayed relevant, however, the linkage of TEN-T and secondary networks as well as cross-border infrastructures and services are mentioned less frequently.

The next section presents the strategies and objectives of the TEN-T policies' soft space policy documents.

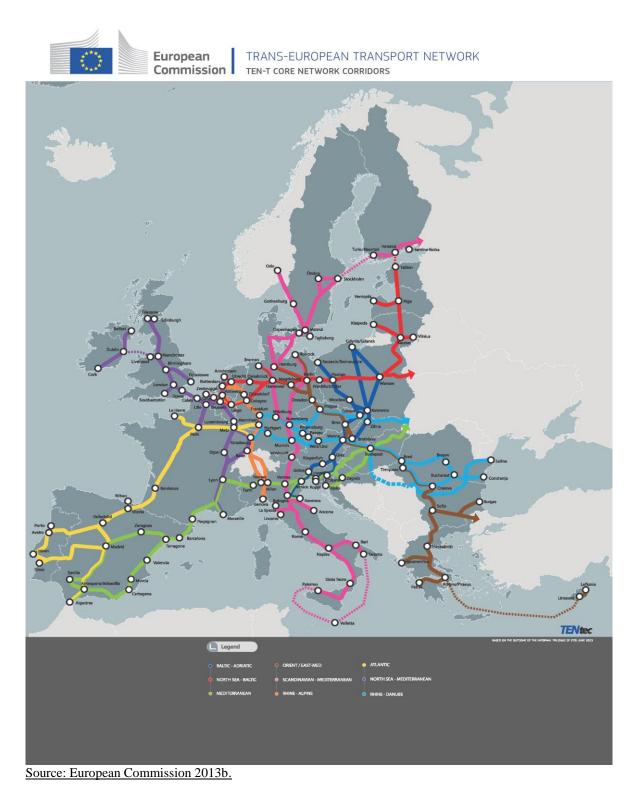
# **5.2 Strategies and objectives of the TEN-T priority projects and core network** corridors (EU Transport Policy)

As already mentioned in **chapter 4**, the TEN-T policy defined 30 concrete EU transport **priority projects** in 1994 and 2004 which were to be supported by EU funds to ensure their soon implementation by the member states. They were mostly not interrelated and focused on single transport modes (see **chapter 4.1**). The TEN-T concept was revised in the funding period 2014-2020 and transformed in a dual layer structure consisting of a core network and a comprehensive network with different time horizons. The core network shall be implemented by 2030, the broader comprehensive network until 2050 (European Commission, DG Move, and INEA 2012, 20). The core network shall be implemented through investments in defined **core network corridors** (see **Image 11**) which cover all member states. The corridors cover at least three transport modes , contain two cross-border sections and connect at least three member states (ibid., 20). Because of these requirements the corridors cover a large territory and cross more than one cross-border region. The corridors integrate and mutually link the former TEN-T priority projects and develop them further to a coordinated network (European Commission and DG Move 2014).

According to Kissler and Kurnol, the member states have been strongly involved in the decision about the routing of the comprehensive TEN-T network (Interview Kissler 2016; Interview Kurnol 2016). The routing of the core network, however, was influenced less by the member states but developed by the European Commission based on a scientific method and certain indicators. Still the member states influenced the final definition of the core network corridors which were to be chosen from the predefined core network tracks (Interview Kissler 2016). The influence of the national level on the TEN-T network is acknowledged by Neumann, Ritt, Wierzbicki and Griekere (Interview Ritt 2016; Interview Neumann 2016; Interview Wierzbicki and V. Griekere 2016). According to Neumann, the transport interests of the regional levels are said to have been only forwarded by the national level to the European Commission when the national level was also in favour of the regional proposals (Interview Neumann 2016). After negotiating the aims with the national representatives, the European Commission, however, is said to have decided about the TEN-T network regulations (Interview Wierzbicki and V. Griekere 2016).

In the following sections it will be focused on the priority projects and the core network, i.e. the TEN-T corridors, and not the comprehensive network because the influence of the more targeted investments in corridors and an earlier implementation deadline are expected to facilitate the evaluation of their influence on cross-border transport.

Image 11: Map of the TEN-T core network corridors



## 5.2.1 TEN-T priority projects (2007-2013)

The priority projects are said to be the "essential elements to strengthen the cohesion of the internal market" (European Parliament and Council of the European Union 2007, preamble) and were thus defined as projects of **European interest** (European Parliament and Council of the European Union 2004, 24). The definition of priority projects was amended in 2004 and was valid for the 2007-2013

funding period. Among others, the priority projects should contribute to the improvement of **cross-border sections**, i.e. bottlenecks, missing TEN-T links, natural barriers etc. (ibid., 20).

Further criteria were (ibid., 21):

- the requirement of and benefit from a long-term planning perspective
- unfolding socio-economic value
- improvement of the interoperability between the member states' transport networks for freight and passenger transport
- contribution to European territorial cohesion by interconnecting also peripheral regions
- sustainable transport development (contribution to environmental friendliness, modal shift, safety) and
- to ensure the involved member states' commitment and implementation in time.

**Table 22** presents the 30 priority projects defined in 2004 whereas some of them have already been completed today (marked in green).

## Table 22: List of the 30 priority projects (2004)

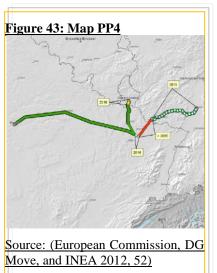
Table 22: List of the 30 priority projects (2004)
PP1: Railway axis Berlin-Verona/Milano-Bologna-Napoli-Messina-Palermo
PP2: High-speed railway axis Paris-Bruxelles/Brussel-Köln-Amsterdam-London
PP3: High-speed railway axis of south-west Europe
PP4: High-speed railway axis east
PP5: Betuwe line (2007)
PP6: Railway axis Lyon-Trieste-Divača/Koper-Divača-Ljubljana-Budapest-Ukrainian border
PP7: Motorway axis Igoumenitsa/Patra-Athina-Sofia-Budapest
PP8: Multimodal axis Portugal/Spain-rest of Europe
PP9: Railway axis Cork-Dublin-Belfast-Stranraer (2001)
PP10: Malpensa airport (2001)
PP11: Öresund fixed link (2000)
PP12: Nordic triangle railway/road axis
PP13: UK/Ireland/Benelux road axis
PP14: West coast main line (2009)
PP15: Galileo
PP16: Freight railway axis Sines-Madrid-Paris
PP17: Railway axis Paris-Strasbourg-Stuttgart-Wien-Bratislava
PP18: Rhine/Meuse-Main-Danube inland waterway axis
PP19: High-speed rail interoperability on the Iberian peninsula
PP20: Fehmarn Belt railway axis
PP21: Motorways of the sea
PP22: Railway axis Athina-Sofia-Budapest-Wien-Praha-Nürnberg/Dresden
PP23: Railway axis Gdansk-Warszawa-Brno/Bratislava-Wien
PP24: Railway axis Lyon/Genova-Basel-Duisburg-Rotterdam/Antwerpen
PP25: Motorway axis Gdansk-Brno/Bratislava-Wien
PP26: Railway/road axis Ireland/United Kingdom/continental Europe
PP27: "Rail Baltica" axis Warsaw-Kaunas-Riga-Tallinn-Helsinki
PP28: "Eurocaprail" on the Brussels-Luxembourg-Strasbourg railway axis
PP29: Railway axis of the Ionian/Adriatic intermodal corridor
PP30: Inland waterway Seine-Scheldt
Source: Author based on ibid 30

Source: Author based on ibid., 30

18 projects have focused on interoperable rail and road, two on inland waterways. One priority project focuses on sea transport. The projects are divided in several sections and subprojects with different time horizons. These priority projects can be considered as pre-runners of the TEN-T corridors and the EU Transport Policy highly prioritized their implementation in the funding period 2007-2013 (European Commission and DG Move 2014).

The strategies and aims of the three priority projects PP4, PP27 and PP28 are presented in the following shortly. The description will mainly focus on the information on the cross-border sections. The residual

descriptions of the priority projects, except of PP10, PP15 and PP21 can be found in the **appendix**. The latter are not considered to be very relevant for this dissertation because they do not directly concern cross-border transport.



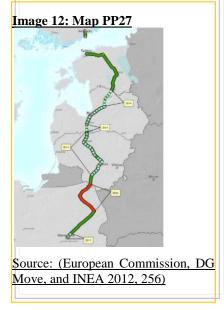
## PP4: High speed railway axis east

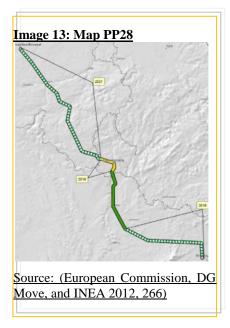
PP4 involves France, Luxembourg and Germany and shall upgrade the passenger railway tracks between Paris, Nancy, Luxembourg, Saarbrücken and Mannheim. Herewith it shall be an attractive alternative for road and air transport and better connect the airports of that region (intermodal air and rail transport). It contributes to PP17 which shall better link Paris with Bratislava. Eastern France shall become more accessible and thus more economically viable. New rail tracks are to be established or upgraded. Additionally, four international rail service connections have been established (Paris-Forbach-Saarbrücken-Mannheim-Frankfurt; Paris–Strasbourg-Karlsruhe-Stuttgart-Munich; Paris-Luxembourg and Paris-Basel-Zurich). The project has almost fully been implemented. The Baudrecourt (FR)-Luxembourg (LU) cross-border section has been

completed. Still, the travel time of the trains between the two countries is to be improved until 2018. Solely the section between Baudrecourt (FR) and Saarbrücken (DE) is missing because of very costly measures which have been considered not to be cost efficient (European Commission, DG Move, and INEA 2012, 54).

## PP27: "Rail Baltica" axis Warszawa-Kaunas-Riga-Tallinn-Helsinki

This priority project supports the construction of a railway axis between Helsinki, Talinn and Warsaw and the sole that exists between the countries. Helsinki is connected via ferries. The route also accesses three ports. The aim is to increase the speed of operation. Therefore a joint declaration of intent was signed by the member states involved and two studies were started. The environmental conditions are to be improved by the project by leading to a modal shift. A cooperation platform was established for the Rail Baltica Transport Forum for a better and regular communication between important actors. A growth strategy for this region was commonly to be established. Also the Baltic Region Intergroup of the European Parliament has discussed the development of this transport axis. This corridor was included in the Baltic Adriatic Corridor in the following funding period and Italy was included in the so-called Baltic Adriatic Axis. The project is managed by a European Coordinator (ibid., 258).





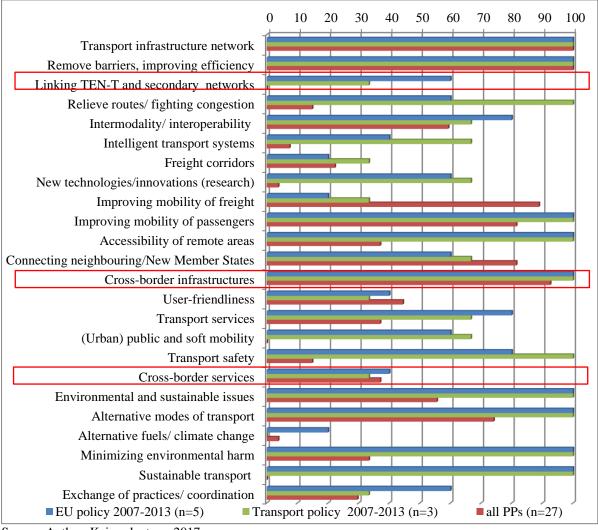
# **PP28:** "EuroCaPrail" on the Brussels-Luxembourg-Strasbourg railway axis

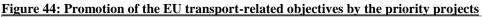
This priority project shall connect the three EU capitals Brussels (BE), Strasbourg (FR) and Luxembourg (LUX) with a fast passenger and freight rail link. Additionally, it shall also contribute to a better connection between the North Sea and Southern Europe. Existing routes were to be upgraded and modernized. The aim is to enlarge the accessibility of the regions and contribute to their economic development. Furthermore, a modal shift from road to rail is to be reached. The project complements PP4, PP17, and PP24 (ibid., 268).

Some priority projects are mutually interrelated because they often overlap or 'border' each other. In **Figure 44** it can be seen that some EU policy objectives have been adopted very frequently as priority project objectives whereas others were never or rarely dealt with. All priority projects focused on the development of the transport infrastructure network with the aim to remove bottlenecks or increase the efficiency or capacity of existing infrastructures. Most projects aimed at improving both, freight and passenger transport, only few focused on one of them. 93% of the priority projects contained cross-border infrastructures that were to be improved to enhance the linkage with other member states. Furthermore, the promotion of alternative modes of transport was often an integral part of the priority projects. Cross-border services were promoted only by 37% of the projects. None of the projects explicitly aimed at linking the TEN-T to secondary networks and contributing to a more sustainable transport. Additionally, no project supported soft mobility.

When comparing the relevance of the objectives in the EU policies from the first funding period (2007-2013), and particularly the EU transport policy (see **Figure 44**), it seems that there is no correlation between the promotion of the objectives in the EU policies and the priority projects. In some objectives there is a very large difference. Besides that, the priority projects do not refer to cross-border regions which they cross but are focused on their demarcated cross-border sections.

Not all priority projects have been completed by now but they have been adopted by the TEN-T core network corridors in the following funding period 2014-2020 (European Commission and DG Move 2014). Thereby the projects have been even stronger been interrelated.





The next section presents these core network corridors and their contribution to the EU policy objectives.

# 5.2.2 TEN-T core network corridors (2014-2020)

11 core network corridors were defined in the new TEN-T guidelines for the current funding period (2014-2020). Besides the nine core network corridors that are shown in **Image 11** and **Table 23** there are two further projects which cope with sea transport (motorways of the sea) and rail transport (ERTMS) which are not located in certain parts of the EU but focus on one transport mode each. Because they do not especially focus on cross-border transport and are not territorially located they are not investigated further in this dissertation.

In the following the scope, status quo, strategies and objectives of the three corridors Atlantic, North Sea Baltic and North Sea Mediterranean are presented. The description of the residual corridors can be found in the appendix.

Source: Author, Kaiserslautern, 2017.

Name of the corridor	Countries involved	Transport modes
Atlantic	PT, ES, FR, DE	Sea, IWW*, Rail, Road, Air
Baltic Adriatic	PL, CZ, SK, AT, SI, IT	Sea, Road, Rail, Air
Mediterranean	ES, FR, IT, SI, HR, HU	Rail, Road, Sea, Air, IWW*
North Sea Baltic	FI, EE, LV, LT, PL, DE, NL, BE	All modes
North Sea Mediterranean	IR, UK, FR, LUX, NE, (DE, CH)	All modes
Orient East Med	DE, CZ, SK, AT, HU, RO, BG, GR, (TIR,	Rail, Road, Air, IWW*
Onent East Meu	CY)	
Rhine Alpine	BE, NL, DE, CH, IT	All modes
Rhine Danube	BG, RO, SK, HR, AT, HU, CZ, DE, FR,	All modes
	(RS, BA, MD, UA)	
Scandinavian	FI, SE, NO, DK, DE, AT, IT, MT	Rail, Road, Air, Sea
* IWW = inland waterway	3	•

 Table 23: List of the core network corridors

Source: Author based on Corridor Work Plans of the Core Network Corridors from 2015.

#### Atlantic Corridor

The Atlantic Corridor links Portugal and Spain with France and Germany and involves the large cities Paris and Madrid (see **Image 14**).

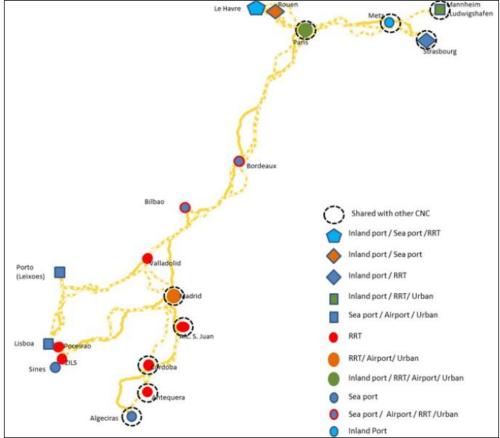


Image 14: Territorial scope of the Atlantic corridor

Source: Secchi 2015, 5.

It shall improve the accessibility and connection between important sea and inland waterway ports and shall as well contribute to a better linkage to the more central parts of the EU. The ports are either linked by waterways or railways. These two modes are to be linked more efficiently; the transport connections shall improve their interoperability - by harmonizing the infrastructure and tolls as well as building missing links across borders - and multimodality. The large nodes Paris and Madrid are prioritized to

improve their interoperability because of their link to other transport networks. So far, a large part of passenger transport between Lisbon and Madrid is based on road transport. Between the other countries flight connections dominate. The transport share on these two modes shall be reduced. The corridor is said to have a high relevance for international trade with Africa, America and the Far East. Therefore, the external connections by maritime transport are to be expanded further (e.g. motorways of the sea) and made more efficient. Here, also the environmental pollution of the sea by shipping fuels shall be minimized (ibid., 1).

The corridor contains the modes rail, inland waterways, sea, air and road transport. In Germany, however, the corridor does not include road tracks. The section linking Paris, Rouen and Le Havre contains the three transport modes rail, road and inland waterways and ensures the connection of the corridor to the North Sea. The sea, inland and airports are to be linked better with the other modes of passenger transport and high-speed connections. It is expected that especially better airport connections will be of economic value for the regions. Almost all roads included in the corridor are motorways. Basically, only one cross-border section between Spain and Portugal (Vilar Formoso) shall be upgraded to a faster connection. Besides that, and the above already mentioned harmonization of tolling systems, clean fuels shall be made more available along the corridor. The rail network shall improve its capacity by expanding the number of tracks, enlarging the speed in bottlenecks, electrifying non-electrified sections and upgrading the rolling stock that currently relies on different types of voltage. Challenges are different gauge systems (including load), limited lengths of freight trains in some sections, low ERTMS implementation and sometimes low number of operations across borders. Therefore, the ERTMS provision shall be promoted especially in cross-border sections. Besides the connecting infrastructure also terminals and logistical platforms need to established or upgraded and interconnected (ibid., 6).

The Atlantic Corridor is linked to the North-Sea Mediterranean Corridor through the Seine river and its integration in the Seine-Scheldt canal. Even a short section of the Seine river belongs to both corridors. It shall also be linked to the logistic hub of Luxembourg. Furthermore, is intersects with the Mediterranean Corridor between Madrid (ES) and Ageciras (PT) as well as with the Rhine-Danube and Rhine-Alpine Corridors in Mannheim (ibid., 6).

The corridor treats four cross-border sections (ibid., 6):

- Metz (FR) and Mannheim (DE)
- Vitoria (ES) and Dax (FR)
- Évora (PT) and Mérida (ES)
- Aveiro (PT) and Salamanca (ES)

#### North Sea Baltic Corridor

The North Sea Baltic Corridor connects the South of Finland (Helsinki) with the Baltic States, Poland, Germany, the Netherlands and Belgium and therewith countries with diverging modal transport intensities and diverging economic and social standards (Trautmann 2015, 2).

It aims at improving the transport connections of the Baltic States, whose network, especially in the rail mode, to Poland and the rest of the EU is not in a good condition. Therewith the different ports from the North Sea and Baltic Sea are to be connected over land. New transport flows from the North-South axis are to be linked to the West-East flows between the North Sea and Poland. The newer member states are to be connected to the old member states. Besides that the Baltic States and Finland are important hubs for traffic flows to worldwide markets in China, Russia, and Asia whereas the involved North Sea ports are hubs to America. To improve the connection between the ports all transport modes (sea, rail, road, inland waterways and air) are to be used, improved and interconnected. Thus, multimodality is to be enlarged and transport management systems to be applied. Additionally, new technologies are to be

applied in the ports, sea transport and logistical infrastructure to make the corridor more efficient and environmentally friendly. In this respect also the provision of alternative fuels is to be enlarged (ibid., 2).

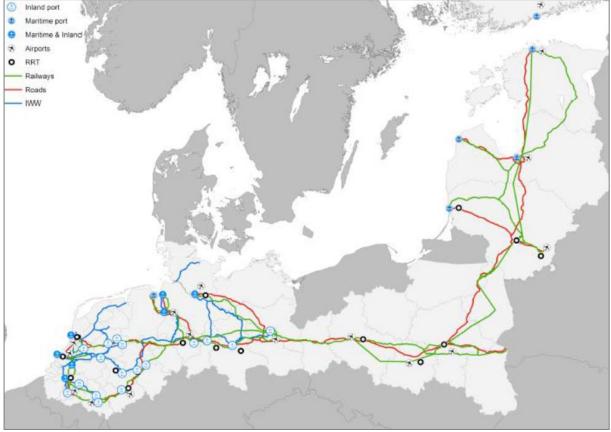


Image 15: Map of the North Sea Baltic corridor

A challenge in rail transport is the different rail gauges between the Baltic State system, the Finish system and the other countries' standard systems which require the change of trains at the border. Furthermore, large parts miss the ERTMS system which should be in place to ensure the interoperability across borders. Only three cross-border sections between German, Belgian and Dutch tracks are equipped with ERTMS so far. Additionally, not all tracks have been electrified or have used different voltage systems so far. Therefore, locomotives that cross-national borders have to be equipped with converters. Most parts of the corridor fulfil the maximum axle load, except of tracks in Eastern Poland, and the minimum train length requirements. The line speed requirements of large parts of the corridor need to be improved to meet the EU requirements. To make rail transport more attractive also transport services are to be improved and fastened especially in the international long-distance passenger services in the new member states. The national rules for rail transport shall be harmonized. In the inland water ways infrastructure, which exists between the North Sea ports and Berlin several German waterways shall be upgraded, however, the minimum requirements are met and most waterways are also connected to rail. The river information services are to be enlarged and alternative fuels are to be provided for the ships which themselves need to be converted to alternative fuels. The ports shall further improve their hinterland connections, also for passenger transport, and therewith transport shall be shifted from road to rail, sea and inland waterways. The provision of alternative fuels shall be expanded in the ports and some of them need to increase their capacities. The motorways of the sea link between Tallinn and Helsinki is to be maintained and other sea connections between the ports encouraged. The airports of Warsaw and Hamburg have to develop a connection to the high-speed rail network, others have to

Source: ibid., 5.

improve their infrastructure. The motorways have to be expanded and intelligent transport systems to be applied to avoid congestions, especially around urban nodes. Missing road links are to be constructed and safety is to be improved. Also for road transport alternative fuel stations are to be expanded. Besides that the parking areas are to be enlarged (ibid., 2).

In the planning process, the interests of the 40 regions crossed and the civil society are to be taken into account. The communication between all actors needs to be improved. Additionally, the transport development of the involved member states is to be coordinated and cooperation should be motivated. Also existing macro-regional (Baltic Sea Region) and cross-border regional strategies (EUREGIO), as bottom-up initiatives, are to be coordinated with the corridor development through the corridor fora (ibid., 4).

The corridor contains eight cross-border sections whose expansion shall be prioritized (ibid., 4). It is very difficult to cross the border from Poland to pass through the Baltic States to Helsinki by rail because of the before mentioned different gauge system in the Baltic States. This is considered to be the most critical challenge in cross-border transport. The rail section between Białystok (PL) and the Lithuanian border need to be upgraded with ERTMS, electricity and speed. Also, other cross-border sections should be equipped with ERTMS. The cross-border transport infrastructure is said to be very important to enlarge cross-border working opportunities across borders and economic growth (ibid., 15).

The corridor is interlinked with the Scandinavian-Mediterranean, Baltic-Adriatic, Orient-East Mediterranean, Rhine-Alpine and the North Sea-Mediterranean corridors. The interconnection points are to be strengthened and their interoperability enlarged (ibid., 3).

#### North Sea Mediterranean Corridor (former PP9, 13, 14, 24, 26, 28, 39)

The North Sea Mediterranean Corridor crosses six member states: Ireland, the UK, the Netherlands, Belgium, Luxembourg and France and leads to the borders of Germany and France. The corridor which leads through densely populated areas with intensive economic interlinkages as well as sparsely populated areas, shall improve its interoperability and multimodality and therewith increase its competitiveness internationally (Balázs 2015, 2).

The corridor investments shall improve inland waterways and inland ports, maritime transport and the hinterland of ports, the rail infrastructure across borders and contribute to modal shift. It includes all transport modes. Furthermore, transport in urban hubs is to be supported by minimizing congestions and improve logistics. The corridor shall motivate cross-border cooperation and a coordinated implementation of common infrastructures. The transport shall become more environmentally friendly by introducing alternative fuels and innovative transport systems (ibid., 3).

In the rail infrastructure the EU standards (train length, electrification voltages, speed, axle load and ERTMS) shall be applied to ensure a smooth and fast transportation of freight and passengers through the EU. Long distance rail freight transport and services shall be increased across European inner borders. Road transport shall become safer and more sustainable. The road infrastructure of the corridor consists mainly of fast highways or expressways; some last mile sections to connect ports need to be upgraded. Safer and larger parking areas need to be erected to combat the congestions. The national regulations need to be harmonized and intelligent transport services applied. The provision of clean fuels is to be improved along the roads. Existing tolling systems which influence parts of the corridor should be harmonized and interoperable. In the UK, ports have to be connected with rail infrastructure. All ports should offer alternative fuels and improve their hinterland connections. Short sea shipping should be integrated into logistical chains. The waterways especially between France and the good Dutch and Belgian systems shall be upgraded to make the waterways combined with rail transport.

Additionally, the locks and multi-modal container terminals at transport nodes need to be upgraded and better interconnected. Four airports still need to be connected to a fast rail connection (ibid., 7)



Image 16: Map of the North Sea Mediterranean corridor

Source: ibid., 5

In the corridor there are three important cross-border projects. Cross-border projects are especially to be implemented in the inland waterways system: intermodality and interoperability are to be improved by better linking the river basins of the Seine (FR), Scheldt (FR, BE, NE) and the Rhône (FR, CH). Also a lock between Belgium and the Netherlands (Ghent-Terneuzen-Canal) shall be upgraded because being a major bottleneck for the corridor. The third cross-border project concerns the railway axis between the Randstad region (NL) and Basel. Especially the connection between Brussels and Luxembourg needs to increase the speed of passenger trains and renew the electrification. In general the application of ERTMS should be prioritized in cross-border sections (ibid., 15).

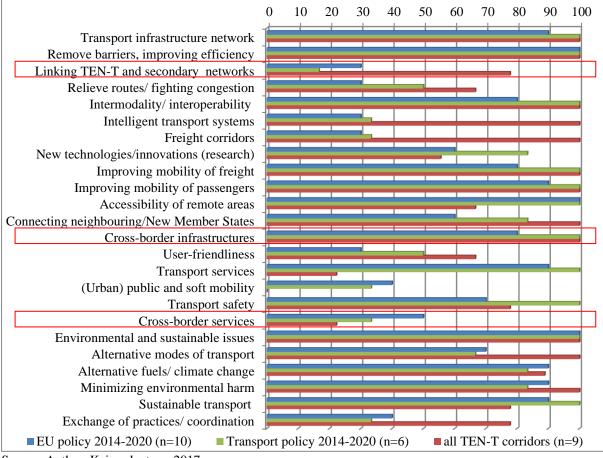
The corridor crosses the North Sea Baltic, Rhine-Alpine, Atlantic Corridor and the Mediterranean Corridors and connects as sole corridor the UK and Ireland (ibid., 5).

**Figure 45** provides an overview of the promotion of transport objectives in the corridor work plans compared to the latters' promotion in the EU policy and transport policy of the current funding period (2014-2020). The corridor work plans refer to almost all EU objectives. Solely, soft mobility is never mentioned. (Cross-border) transport services are rarely dealt with. This is probably due to the transnational scale of view: the interoperability in urban nodes is to be improved, therefore cities are important places. Transport services within cities, however, are not considered.

In the work plans of the corridors, several keywords from EU policies were always addressed such as intermodality and interoperability, intelligent transport systems, cross-border sections and environment. Compared to the earlier priority projects of the last funding period, all corridors support both passenger and freight transport and include several transport modes which shall be interconnected. Furthermore,

the corridors have strict guidelines with several indicators from the EU which have to be completed in the coming years to ensure the harmonization of the national transport systems of the member states.

There is no direct relation between the popularity of objectives in the EU policies or the EU transport policies and the choice of the corridor work plans of these objectives. However, a high number of the EU objectives is promoted.



#### Figure 45: Promotion of the EU transport-related objectives by the core network corridors' work plans

Source: Author, Kaiserslautern, 2017.

Among these EU requirements is also the request to concentrate the investments on cross-border sections. Therefore, all corridors define key cross-border sections which urgently need to upgrade the infrastructure. Besides that, compared to the last funding period, some corridor work plans have directly referred to cross-border regions and macro-regions which are concerned by the corridor. This shows that some attempts to coordinate the TEN-T objectives with other forms of cross-border cooperation exist from the TEN-T corridor side.

The next chapter provides an overview of the situations of nine INTERREG funded cross-border regions which are crossed by a TEN-T corridor. Thus, the overlapping of two sorts of soft spaces and their influence and potential coordination is explored in terms of cross-border transport.

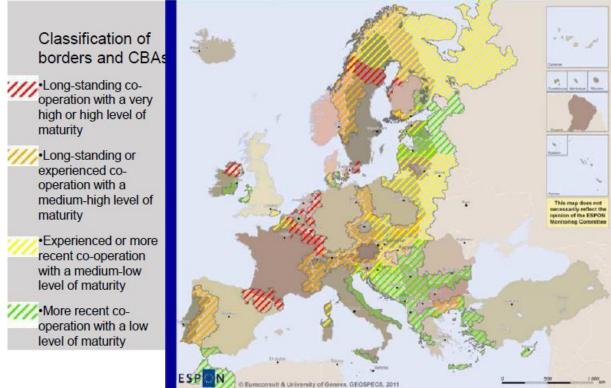
# 5.3 Overlapping cross-border regional and TEN-T corridor policies

The first step of the case study analysis explores nine cross-border region (CBR) case studies. These cases were selected from the existing INTERREG A cross-border regions in the method of elimination in the order of the following criteria catalogue:

- $\rightarrow$  One cross-border region for <u>each corridor</u> was to be chosen
- → The cross-border regions were to be crossed by the corridor in a way that the different <u>domestic parts (border regions) are connected</u> by the corridor. Cases were excluded in which the corridor crossed the CBR but only one domestic part.
- ➔ Only cross-border regions containing <u>solely EU member states</u> were taken into account. Therewith crossborder regions with Swiss and Norwegian participation were excluded. This was done to ensure the comparability of the case.
- → Only cross-border regions were to be chosen which existed for <u>both</u> investigated <u>funding periods</u> (2007-2013 and 2014-2020) to be able to analyse the development of the policies' implementation. Therewith CBR with Croatian participation were excluded. Despite Romania and Bulgaria accessed the EU not before 2007, INTERREG programmes had existed already in the last funding period and therefore could be taken into account.
- → The <u>focus of the TEN-T corridor work plans</u> on certain cross-border sections were taken into account in the case of several possibilities. If they focused on one of the cross-border sections and not on the other the first cross-border region was chosen.
- → <u>Interesting aspects of the cooperation programmes</u> were taken into account and prioritized if applicable (e.g. TEN-T criticism, strong changes of relation to transport between the two funding periods, etc.)
- → The cross-border regions were to be <u>crossed by the corridor preferentially centrally</u> and not only marginally on one side of the border
- → Cross-border regions with different characteristics were to be chosen:
  - composition of member states (old/new/mixture)
  - population density (urban/rural/mixture)
  - existence of macro-regional strategies in the cooperation area (yes/no)
  - existence of natural transport barriers (e.g. mountains/rivers/sea) at the border (yes/no)
  - economic situation (good/bad/intermediate)
  - interregional disparities within the CBR (yes/no)

Based on this criteria list, the case studies could easily be chosen. It was placed importance on the fact that not solely cases whose Operational and Cooperation Programmes highly related to the TEN-T and transport development in general were chosen but a mixture of both cases to avoid manipulating the results on the EU policies' impact on cross-border transport. Besides that, due to language reasons documents produced solely in Italian, Greek or Slavic languages very excluded. However, the countries with these working languages were included in the analysis when cooperating in other language combinations.

The **population density** is evaluated based on data from the ESPON Atlas from 2014. When analysing the cross-border regions it is also relevant to take into account the **cooperation tradition** of the cross-border region. This might have an impact on the efficiency and output of the cooperation programme (see also **Interim Conclusion I**). An ESPON study characterized several cross-border regions in four different categories of maturity (see **Image 17**). This categorization will be used in the following analysis of the nine case studies.



## Image 17: Classification of cooperation maturity of cross-border regions

Source: Herwijnen 2015, 15.

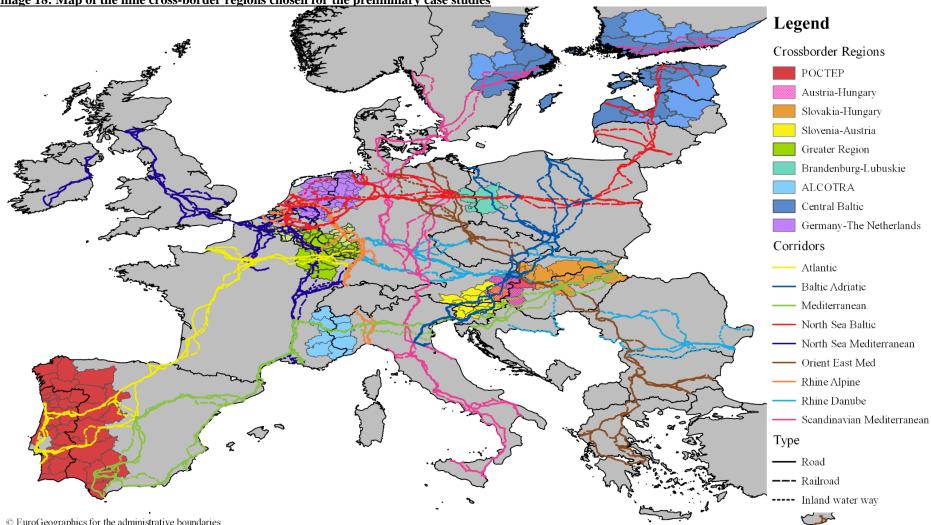
The following nine cross-border region (CBR) case studies were chosen:

#### Table 24: List of the initial nine case studies

	CBR	Corridor
01	Spain-Portugal (POCTEP)	Atlantic Corridor
02	Slovenia – Austria	Baltic Adriatic Corridor
03	France – Italy (ALCOTRA)	Mediterranean Corridor
04	Brandenburg – Lubuskie	North Sea Baltic Corridor
05	France – Belgium – Germany – Luxembourg (Greater	North Sea Mediterranean Corridor
	Region)	
06	Austria – Hungary	Orient East Med Corridor
07	Germany – The Netherlands	Rhine Alpine Corridor
08	Slovakia – Hungary	Rhine Danube Corridor
09	Finland – Estonia – Latvia – Sweden (Central Baltic)	Scandinavian Mediterranean Corridor
Source	: Author, Kaiserslautern, 2017.	

The profiles of these nine preliminary case studies will be presented in the coming chapters. Afterwards

they are compared, among others, by analysing the results of a survey which was conducted with the INTERREG Secretariats of the nine regions and the core network corridors.





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Source: Author, Kaiserslautern, 2017, based on Interreg España - Portugal 2016; Interreg Central Baltic 2014; Interreg ALCOTRA 2015; Interreg Deutschland Nederland 2015; Interreg Großregion 2015; Interreg Slovakia-Hungary 2016; Interreg Slowenien - Österreich 2015; Interreg Austria-Hungary 2016; Interreg Slowenien - Österreich 2015; GISCO - EUROSTAT 2015.

# 5.3.1 Nine preliminary case studies

# CBR Spain-Portugal (POCTEP) & Atlantic corridor

The cross-border region consists of 37 NUTS III regions from Spain and Portugal and spans over the whole border line between Spain and Portugal. The territory of the current funding period (2014-2020) has been slightly increased compared to the earlier funding period. It therewith combines the following six cross-border regions under one roof: Galicia – Norte Portugal, Norte Portugal – Castilla y León, Castilla y León – Centro de Portugal, Centro – Extremadura – Alentejo, Alentejo – Algarve – Andalucía and Pluri-regional (Interreg España - Portugal n.y.b).

	rugar & manne cornuor					
Territorial size	137,013.9km <sup>2</sup>					
Territorial structure	rather polycentric					
Population density,	predominantly rural and remote (609			Stand of		
demographic situation	and Southern coast intermediate area	as and on	e urban	Comments of the		
	area; (40 inhabitants/km <sup>2</sup> ), shrinking	g and agei	ing			
Economic situation	after economic crisis, low attractive	ness in m	ost parts	and the second		
Cross-border mobility	shrinking, depends on the area					
Cooperation tradition	experienced					
Composition of members	old member states (1986)			The second of th		
(EU accession)						
Interregional disparities	low, but coastal areas are more attra-	ctive in b	oth parts	Sec.		
Macro regional impact	no			© EuroGeographics for the administrative boundaries Copyright (2017) DG MOVE for the corridor shapes		
Status quo CB transport	the programme does not relate to CH					
(Infrastructure +	transport situation: low transport acc					
services)	has been improved in the last fundin	g period;	Coastal area	as with higher		
	accessibility					
Natural transport barriers	partially mountains and rivers					
INTERREG B*		TEN-T	relation	CB transport relation		
	Atlantic Area/	-		2007-2013		
	South West Europe	-		2007-2013; 2014-2020		
	Mediterranean Area	-		2007-2013		
INTERREG A	TEN-T relation		Transport	oort as priority		
2007-2013	corridor is said to be important for		Ordenacio	rdenacion del Territorio y		
	economic growth of the region		accesibilid	ibilidades		
INTERREG A	TEN-T relation		Transport	port as priority		
2014-2020	corridor is NOT mentioned anymore	e	no, but ind	ut indirectly		
TEN-T cross-border	2007-2013		2014-2020	(Atlantic Corridor)		
sections	PP3: Caia (PT) – Badajoz (ES)		Rail Aveir	o (PT)–Salamanca (ES)		
	PP8: Norte (PT) – Castilla y Leon (ES);					
				la (DT) Essentes de		
	Andalucía (ES); Faro (PT) – Huelva (ES); Oñoro (			la (PT)–Fuentes de		
	Lishon (DT) Valladolid (ES) Lishon (DT)			,		
	La Coruna (FS): Lisbon (PT) Savilla Koad			rda (PT)-Ciudad Rodrigo		
	$\begin{array}{c} - \text{Ea Columa (ES), Elsoon (F1) - Sevina} \\ (\text{ES}) \end{array} $ (ES)					
	PP16: Sines-Elvas (PT) – Badajoz (ES);					
				(PT)–Mérida (ES)		
				Road Elvas (PT)-Badajoz (ES)		
Source: Author Voicertant				• • •		
	ern, 2017, based on Interreg España -					

and DG Move 2015b; Interreg España - Portugal 2011, 2016, 3,10f.19,56; European Commission, DG Move, and INEA 2012; Secchi 2015 Some of the TEN-T priority projects (2007-2013) were also included in the Mediterranean Core

Some of the TEN-T priority projects (2007-2013) were also included in the Mediterranean Core Network Corridor from 2014 on, which influences the Spanish part of the cross-border region.

# CBR Slovenia – Austria & Baltic Adriatic corridor

The cross-border region consists of 17 NUTS III regions from Slovenia and Austria and spans over the whole border line between Austria and Slovakia.

1 able 20. 1 101110	biovenia	- Austria & Danie Aur	ianc c	UTTUUT		
Territorial size		38,353 km <sup>2</sup>				
Territorial structu	ire	polycentric		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
Population densit	y,	predominantly rural and		~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
demographic situ	ation	intermediate areas; rur	al	s >	- England	
		regions are shrinking i	n			
		population			- Alexandre -	
Economic Situati	on	very successful in Aus		<b>S</b>	And S -	
		economic crisis in Slov			State of the second sec	
		(below 65% of EU ave	rage)			
Cross-border mol	oility	shall be increased		© EuroGeographies for the administ	rative boundaries	
Cooperation tradi		more recent cooperation	n	Copyright (2017) DG MOVE for th	e corridor shapes	
Composition of n	nembers	old (1995)				
(EU accession)		+ new member state (2				
Interregional disp		high, strong difference			nployment rates	
Macro regional in		Danube, Alpine, Adria				
Status quo CB tra	nsport	2007: generally good transport i				
(Infrastructure +		areas, Slovenian road a				
services)		2014: CB-transport ha	mpere	d by bottlenecks and m	issing multimodal	
		connections.				
Natural transport	barriers	partially mountains and				
INTERREG B*				-T relation	CB transport relation	
		Danube Area	2014	-2012	2014-2020	
		Adriatic Ionian	-		2014-2020	
		Central Europe	2007	7-2013	2007-2013, 2014-2020	
	1	Mediterranean Area -			2007-2013	
INTERREG A		relation			Fransport as priority	
2007-2013		tion to TEN-T			no, but indirectly and as horizontal theme	
INTERREG A		relation		Transport as priority		
2014-2020		tion to TEN-T at all		no		
TEN-T cross-	2007-20				driatic Corridor (blue)	
border sections	-			Road Sentilj (SI)-Spi		
				Rail Sentilj (SI)-Spie	Rail Sentilj (SI)-Spielfeld-Straß(AT)	
	7 • 1			<u> </u>	1 2015 56 21 26 2005	

Table 26: Profile Slovenia – Austria & Baltic Adriatic corridor

Source: Author, Kaiserslautern, 2017 based on Interreg Slowenien - Österreich 2015, 7ff. 21, 26, 2007, 29f.,45,53ff.; European Commission, DG Move, and INEA 2012; Bodewig 2015; European Commission and DG Move 2015b

# CBR France – Italy (ALOCTRA) & Mediterranean corridor

The cross-border region consists of 9 NUTS III regions from France and Italy and spans over the whole border line between Italy and France. Several cross-border cooperation organisations and committees exist on the territory.

Table 27. Troine France –	italy (ALCOTKA) & M	euner ranean co	Tiuor	
Territorial size	53,334km²			5
Territorial structure	centralistic (Turin and N	lice)	1 5	
Population density,	predominantly rural and	some urban	1 29	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
demographic situation	areas; growing but agein	g population,	1 cm	the second second
	big differences on the ter		America	Actual 2
Economic Situation	high innovation capacity	in cities, low		x interest
	in rural, peripheral areas			
Cross-border mobility	growing		4	
Cooperation tradition	long tradition		Sund and	
Composition of members	old founding member sta	ates (1957)	E ~ ~ 3	~~~ }
(EU accession)			2-S	- Charles -
Interregional disparities	low, but rural areas are e		2	
	weaker than urban areas	in both parts		The second
Macro regional impact	Alpine Space		X	and the second sec
	© EuroGeographics for the administrative boundaries Copyright (2017) DG MOVE for the corridor shapes			roGeographics for the administrative boundaries
Status quo CB transport	overall good accessibility, but not balanced, low accessibility in peripheral areas;			
(Infrastructure + services)	some rail routes need an upgrade; good airport infrastructure; transport services			
(	need to be improved; CB-transport services need to be made more efficient and			
	increase the offer			
Natural transport barriers	mountains (Alps)			
INTERREG B*	· · ·	TEN-T relation		CB transport relation
	Alpine Space	-		2007-2013
	Central Europe	2007-2013		2007-2013, 2014-2020
	Mediterranean Area	-		2007-2013
INTERREG A	TEN-T relation		Transport as priority	
2007-2013	international rail transit	route is	not directly	
	mentioned			
INTERREG A	TEN-T relation		Transport as	priority
2014-2020	no TEN-T relation		Attractivité d	lu territoire
TEN-T cross-border	2007-2013		2014-2020 (Mediterranean Corridor)	
sections	PP6: Rail Lyon (FR) – 7	Turin (IT)		na (IT) – Saint Laurent de
			Mure (FR)	
				ecchia (IT)-S.J.Maurienne
	Road			necchia (IT)-Modane (FR)
Source: Author, Kaiserslau				
	DIE + 0040 D + 11	04 F T	COTT 1 2015	5, 4f.,9, 2007, 9,14f.,20.

#### Table 27: Profile France – Italy (ALCOTRA) & Mediterranean corridor

# CBR Brandenburg – Lubuskie & North Sea Baltic corridor

The cross-border region consists of 7 NUTS III regions from Germany (Brandenburg) and Poland and spans over a partial border line between Germany and Poland. It contains two Euroregions (Pro Europa Viadrina and Spree-Neisse-Bober).

Table 28: Profile Brander		x North Sea r	Salue corrige		
Territorial size	20,272.83km <sup>2</sup>			25	
Territorial structure	polycentric			$\sim$ $\sim$ $\sim$ $\sim$ $\sim$	
Population density,	intermediate regio		•	A A A	
demographic situation	cities; strongly shr	inking and age	eing 🛛 🦳		
	population		23	States and States	
Economic Situation	low GDP		\	and the second s	
Cross-border mobility	shall be increased		11	Change S and	
Cooperation tradition	experienced		?	1505 L-0	
Composition of	old (1957) + new 1	member state (	2004) 🔰	12 cm	
members (EU			1 1	5	
accession)			$\overline{\mathcal{N}}$	© EuroGeographics for the/administrative boundaries Copyright (2017) DG MOVE for the corridor shapes	
Interregional disparities			higher living o	costs in Brandenburg, higher	
	unemployment rat	e in Lubuskie			
Macro regional impact	Baltic Sea Region				
Status quo CB transport				he last years; still low quality (speed	
(Infrastructure +				ad and rail infrastructures (only 11	
services)	crossings), missing	g or poorly coo	ordinated pub	lic transport connections across	
	borders				
Natural transport	2 rivers (Oder, Neisse)				
barriers					
INTERREG B*		TEN-T relati		CB transport relation	
	Baltic Sea/	2007-2013; 2	2014-2020	2007-2013; 2014-2020	
	Central Europe	2007-2013		2007-2013; 2014-2020	
INTERREG A	TEN-T relation		Transport a		
2007-2013	TEN-T corridors a			ler Infrastruktur und Verbesserung	
	mentioned and the		der Umweltsituation		
	is evaluated to be				
	value for the regio	n			
INTERREG A	TEN-T relation		Transport a		
2014-2020	crossings of TEN-T Corridors		Anbindung an die transeuropäischen Netze und		
	North Sea Baltic, Scandinavian Mediterranean, Baltic Adriatic and Orient East Med are mentioned, it shall be benefited		nachhaltiger Verkehr		
	from them		2011.2022		
TEN-T cross-border	2007-2013			(North Sea Baltic Corridor)	
sections	-		Rail: Kunovice (PL)-Frankfurt/Oder (DE)		
			Road Rzen	in(PL)-Dreieck Spreeau (DE)	

Table 28: Profile	Brandenhurg -	– Lubuskie	& North	Sea I	Raltic (	corridor
Table 20. 110Inc	Dranuchburg	Lubuskie	a rorun	Dua 1	Janue	corrigor

Source: Author, Kaiserslautern, 2017 based on Land Brandenburg 2008, 2,10f.; Interreg Brandenburg-Polen 2014, 5ff.,9,14,65,84f.; European Commission, DG Move, and INEA 2012; Trautmann 2015; European Commission and DG Move 2015b.

*CBR France – Belgium – Germany – Luxembourg & North Sea Mediterranean corridor* The cross-border region consists of 47 NUTS III regions from France, Belgium, Germany and Luxembourg and contains several parts of all countries. Luxembourg takes part with its whole territory.

Territorial size	65,401km <sup>2</sup>					
Territorial structure	polycentric					
Population density,	mixture between predominantly rural and intermediate areas, one predominantly					
demographic situation	urban area; high popu	lation de	nsity, gro	owing Luxembourgish and Belgian,	·	
	decreasing and ageing	German	population	on		
Economic Situation	positive but heterogen	leous				
Cross-border mobility	highest commuter rate	e in the E	U		n and a second s	
Cooperation tradition	long tradition			A CARLER AND A CARLER	and the second	
Composition of	old founding member	states (1	957)	KS - Contraction	2001	
members (EU						
accession)					1	
Interregional disparities	intermediate, especial		ls		Y	
	Luxembourg, differen					
	demography and empl	loyment	rates as	© EuroGeographics for the administrative boundaries Copyright (2017) DG MOVE for the corridor shapes	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
	well as GDP			Copyright (2017) DG MOVE for the corridor shapes		
Macro regional impact	no		<u> </u>			
Status quo CB transport				ns; non-efficient internal rail network		
(Infrastructure +				d coordinated offer of public transpo		
services)	environment.	al access	ibility nee	eds to be improved. High pollution of	of the	
Noturel transport						
Natural transport barriers	no					
INTERREG B*		TEN T	relation	CB transport relation		
INTERALO D	North West Europe	2007-2		2007-2013		
INTERREG A	TEN-T relation	2007 2		ort as priority		
2007-2013	two TEN-T corridors	are		tly (Raum – Verbesserung der Mobil	lität in	
	mentioned which cros	s and		der Großregion)		
	pollute the region					
INTERREG A	TEN-T relation		ransport	ransport as priority		
2014-2020	mentions the region as	s a	indirectly (Die Entwicklung eines integrierten			
	transport corridor for		Arbeitsmarkts durch die Förderung von Bildung,			
	European freight trans	sport	Ausbild	lung und Mobilität weiter voranbring	gen)	
	and its environmental					
	burden, but no "TEN-	Τ"	2014.20			
TEN-T cross-border	2007-2013		2014-2020 (North Sea Med. Corridor)			
sections	PP4: Rail			ail: Autelbas (BE)-Luxembourg II(LUX)		
	- Beaudrecourt (FR)-			Road: Sterpenich(BE)-Croix gasperich(LUX)		
	Luxembourg (LUX) Beaudrecourt (FR)			ubange(BE)-Petange JCT(LUX)		
	- Beaudrecourt (FR)- Saarbrücken (DE)			ettembourg (LUX)-Zoufftgen (FR)		
	Suurbrucken (DL)		Road:C	roix Bettembourg (LUX)-Thionville	e (FR)	
			IWW M	Aoselle: Schengen (LUX)-Koenigsm	aker	
			(FR)	Lessener Senengen (Berr) Roemgsm		
			(Atlantic Corridor:			
			(Atlanti	ic Corridor:		
				ic Corridor: orbach (FR)-Saarbrücken (DE))		

#### Table 29: Profile France – Belgium – Germany - Luxembourg & North Sea Mediterranean corridor

Source: Author, Kaiserslautern, 2017 based on Interreg Großregion 2011, 31f.,51; INTERREG IVA Großregion 2016, 6ff.,20; European Commission, DG Move, and INEA 2012; Balázs 2015; European Commission and DG Move 2015b; Secchi 2015.

# CBR Austria – Hungary & Orient East Med corridor

The cross-border region consists of 11 NUTS III regions from Austria and Hungary and spans over the whole border line between Austria and Hungary. The territory of the current funding period has been slightly increased compared to the earlier funding period: The NUTS 3 region Graz was added.

Table 30: Profile Austria Territorial size	23,921km <sup>2</sup>	It East Med Corridor		
Territorial structure	polycentric			
Population density,				
demographic situation	predominantly rural, close to cities, some intermediate regions, one predominantly			
demographic situation	urban region; Growing North, stagnating and decreasing and ageing Sout			
E a construction of the second	(exception: Graz)	<b>C</b> = (1 = 1 = = (1 = = 0.00) = C <b>T</b> II		
Economic situation		, South: less than 80% of EU a	average, economic crisis effects in	
	Southern Hungary	·	.1	
Cross-border mobility		ing traffic, especially in the No	orth	
Cooperation tradition	experienced or mor			
Composition of	old (1995) + New r	nember		
members (EU	state (2004)		8 The	
accession)			15	
Interregional	low, from North to		15 500	
disparities	decreasing populati			
	economic success i		Gen I	
	countries (except of	f Graz)		
Macro regional impact	Alpine/ Danube	© EuroGeographics for the adi Copyright (2017) DG MOVE	for the corridor shapes	
Status quo CB transport	- North: high transport congestions in agglomerations, lack of cross-border public			
(Infrastructure +	transport, good road network			
services)			ail accessibility better in southern	
services)				
	Hungarian than in Austrian part, weak tertiary connections across border, lack of public transport			
	- existing cross-bor	der logistics		
	- bottlenecks in cross-border cycling network			
Natural transport	no			
barriers				
INTERREG B*		TEN-T relation	CB transport relation	
	Central Europe	2007-2013	2007-2013; 2014-2020	
	Alpine Space	-	2007-2013	
	Danube Area	2014-2020	2014-2020	
INTERREG A	TEN-T relation	2011 2020	Transport as priority	
2007-2013		iod is said to have helped to	sustainable development and	
2007 2010		nd road infrastructure become	accessibility	
	part of the compreh			
INTERREG A	TEN-T relation		Transport as priority	
2014-2020		tioned (Baltic Adriatic/	promoting sustainable transport	
2011 2020		diterranean) but not Orient	and removing bottlenecks in	
	East Med!	anorranoun) out not orient	key network infrastructures	
	Strong relations to	TEN-T hierarchies		
		dary nodes), Tertiary nodes		
	shall be better conn	•		
TEN-T cross-border	2007-2013		2014-2020 (Orient East Med)	
sections	PP18: Waterways a	axis Danube	Road + Rail Nickelsdorf (AT) –	
	PP22: Railway Buc		Hegyeshalom (HU)	
	-	*		
			2016, 5ff., 16ff. 23, 26, 63, 2007;	
		010 C 1 0015 E	Commission and DG Move 2015h	

Table 30: Profile Austria – Hungary & Orient East Med corridor

Source: Author, Kaiserslautern, 2017 based on Interreg Austria-Hungary 2016, 5ff., 16ff. 23, 26, 63, 2007; European Commission, DG Move, and INEA 2012; Grosch 2015; European Commission and DG Move 2015b

# CBR Germany – The Netherlands & Rhine Alpine corridor

The cross-border region consists of 51 NUTS III regions from Germany and the Netherlands and spans over large parts of border line between Germany and the Netherlands. The territory of the current funding period has been slightly increased compared to the earlier funding period. Also, three other cross-border regions are comprised in the programme area: The EUREGIO, the euregio rhein-maas-nord and the Euregio Rhein-Waal.

Table 51. I Tollie German						
Territorial size	46,737 km <sup>2</sup> (first funding period 2007-2013)					
Territorial structure	polycentric					
Population density,	mainly intermediate areas close to cities, in the South predominantly urban, ageing					
demographic situat.	and stable development	and stable development with territorial differences				
Economic Situation	GDP/capita higher that					
Cross-border mobility	yes, congested roads		_	A CONTRACTOR OF THE OWNER OWNER OF THE OWNER OWNER OWNER OWNER OF THE OWNER OWNE OWNER OWNE		
Cooperation tradition	long tradition		R			
Composition of	old founding member	states (1957)		A SHALL HAR A		
members (EU	old founding member	states (1997)	124			
accession)			2-2-			
Interregional disparities	low, the North is more	peripheral and				
interregional disparties	less accessible than the					
	applies to the Dutch a					
	applies to the Duten a	ia German part.	D-	© EuroGeographics for the administrative boundaries Copyright (2017) DG MOVE for the corridor shapes		
Macro regional impact	no					
Status quo CB transport	good transport accessi	bility by all modes;	rail ar	nd public transport across borders		
(Infrastructure +				arts; roads are often congested		
services)	across borders		1	, 6		
Natural transport	no					
barriers						
INTERREG B*		TEN-T relation		CB transport relation		
	North West Europe	2007-2013		2007-2013		
	North Sea	2007-2013; 2014-	2020	-		
INTERREG A	TEN-T relation	, ,		Transport as priority		
2007-2013	the region is said to be	crossed by		no but indirectly (Nachhaltige		
	important road corrido			regionale Entwicklung)		
	is said to be important					
	growth of the region					
INTERREG A	TEN-T relation		Tı	ansport as priority		
2014-2020	the region shall impro-	ve its logistical		no, but indirectly		
	position on the Europe			, <b>,</b>		
	corridors; Transport co					
	developed and implem					
TEN-T cross-border	2007-2013			14-2020 (Rhine-Alpine)		
sections	PP5: Rail freight corri	dor: Zevenaar (NL)				
	Emmerich (DE)			berhausen(DE)		
				ail:Zevenaar(NL)-Elten(DE)		
	PP18: IWW: Rhine: A	rnhem (NL)-	(N	North Sea Baltic:		
	Duisburg (DE)			ail: Hengelo (NL)-Salzbergen (DE)		
	<b>-</b>	(NII.) Emmoriah		<b>0</b>		
	PP24: Rail: Zevenaar	(INL)-EIIIIIIerich		bad: Hengelo (NL)-Bad Bentheim		
	(DE)			(DE)		
				WW: Millingen(NL)-Wesel(DE))		
				Deutschland - Niederlande 2011, 13,		
/YTT ' Interreg Deutschland	Nederland 2015 /ltt 1/	TT INT SI S/LSX H	uroneg	n Lommission Lit Move and INHA		

Table 31: Profile German	y– The Netherlands & Rhine Alpine corridor
Table 51, 1101ne Oerman	y The rection and & Runne ruphic corrigon

29ff.; Interreg Deutschland Nederland 2015, 4ff., 14ff., 19f., 31, 34, 38; European Commission, DG Move, and INEA 2012; European Commission and DG Move 2015b; Palacio and Wojciechowsky 2015; Trautmann 2015.

# CBR Slovakia – Hungary & Rhine Danube corridor

The cross-border region consists of 13 NUTS III regions from Slovakia and Hungary and spans over the whole border line between Slovakia and Hungary. On the border several EGTCs (Arrabona, Rába-Duna-Vág, Pons Danubii, Via Carpatia, Ister-Granum, Abaúj-Abaújban, Bodrogközi, Sajó-Rima, Novohrad-Nógrád, Kras-Bodva, Torysa and Svinka) have been established to support cross-border cooperation between the two countries.

Table 52: FToffie Slovakia -		<i>Dunube</i> corr	1401							
Territorial size	61,496km²									
Territorial structure	hubs									
Population density,	mixture between predominantly urban and intermediate areas close to cities; areas									
demographic situation	close to the Easter	close to the Eastern national border suffer shrinkage and ageing								
Economic Situation	diverging, Eastern	n part less deve	loped							
Cross-border mobility	high mobility in th	he West, low i	n 🔽							
	the East, shall be	increased		73	the	way and				
Cooperation tradition	more recent			R.F.		Some Same				
Composition of members	new member state	· · · · ·			- Series	mon and the				
Interregional disparities	low, different eco		ial 🏼 🎢 🛫	and the		and the second				
	conditions in urba		and the second se	وسترجه						
	residual parts, hig	h internal	5		1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	Jon <sup>2</sup>				
	disparities		© EuroGeo	graphies for the ac 2017) DG MOVE	iministrative b	oundaries				
Macro regional impact	Danube		Copyright (	2017) DG MOVE	tor the corrid	or shapes				
Status quo CB transport		onnections are	not good an	d need to	be au	mented: cross-border				
(Infrastructure + services)	the cross-border connections are not good and need to be augmented; cross-border public services need to be made more attractive; the accessibility in the domestic									
<b>, , , , , , , , , ,</b>	parts is ok; potential of IWW Danube is not exploited because it does not fulfil									
	requirements			1						
Natural transport barriers	large parts of the	border are sepa	arated by rive	ers and d	ifficult	topography				
INTERREG B*		TEN-T relati	ion		CB tr	ansport relation				
	Central Europe	2007-2013				-2013; 2014-2020				
	Danube Area	2014-2020			1	-2020				
INTERREG A	TEN-T relation			Transp						
2007-2013	two TEN-T corrid	lors are said to	cross the			nature protection and				
	region			accessi	bility					
INTERREG A	TEN-T relation					Transport as priority				
2014-2020	three TEN-T Corr					enhancing cross-				
	Rhine Danube) ar					border mobility				
	are said not to improve the cross-border transport of the region. Lack of a North-South branch of the corridor. The									
					Ine					
TEN-T cross-border	accessibility to the TEN-T shall be improved.									
sections	2007-2013 (PP18: IWW Dan	ube but no	2014-2020 (Rhine Danube Corridor) IWW Danube: Bratislava (SK) - Budapest (HU)							
50010115	cross-border inves			ive. Didl	151ava (	$SK_{j}$ - Dudapest ( $\Pi U$ )				
	several PP in this		Pail: Darzalka (SK) Hagyashalam(HII)							
	none connects bot	,	Rail: Perzalka (SK)-Hegyeshalom(HU) Road: Cunovo/Rajka (SK/HU) - Jarovce(SK)							
Source: Author, Kaiserslaute										

#### Table 32: Profile Slovakia – Hungary & Rhine Danube corridor

Source: Author, Kaiserslautern, 2017 based on Interreg Slovakia-Hungary 2016, 9ff.; Interreg Hungary-Slovakia 2007, 21f.,35; European Commission, DG Move, and INEA 2012; Peijs 2015; European Commission and DG Move 2015b.

# CBR Finland – Estonia – Latvia – Sweden (Central Baltic) & Scandinavian Mediterranean corridor

The cross-border region consists of 27 NUTS III regions from Finland, Estonia, Latvia and Sweden and spans over parts of the Baltic Sea Region. The territory of the current funding period has been slightly increased – two Finish regions have been added – compared to the earlier funding period. The cross-border region is divided in the three sub programmes Central Baltic, Southern Finland-Estonia and Archipelago and Islands.

c <u>orridor</u>	•								
Territorial size	234,254.3 km <sup>2</sup>								
Territorial structure	rather monocentral (metropolitan areas)								
Population density,	In the Swedish and Finish parts mainly intermediate areas close to cities, in Estonia								
demographic situation	and Latvia predominantly rural with an urban hub, remote and peripheral besides								
	coastal metropolitan areas of the four capitals; rural areas are shrinking, urban hubs								
	growing; the whole	region is a	geing						
Economic Situation	diverging but growi	ng GDP	_	and the second					
Cross-border mobility	yes (significant num								
	shall be further increased	eased	_	mar >					
Cooperation tradition	rather recent, some		d	Contraction of the second					
Composition of members	Old (1995) + New r	nember		10-1					
(EU accession)	states (2004)			5 81 8	E Contraction				
				V					
			C	<ul> <li>EuroGeographics for th opyright (2017) DG MC</li> </ul>	e administrative boundaries				
Interregional disparities	high, high diversity between rural and urban areas in all domestic parts; Latvia is								
			l Swee	lish capitals a	re growing; different				
	employment and GDP rates								
Macro regional impact	Baltic Sea								
Status quo CB transport	no information in programme about cross-border transport or mobility, only								
(Infrastructure +	general information on transport: The transport accessibility depends on the								
services)	location (coast or hinterland) but is in general well developed with different mod								
					cularly important for the internal				
	cross-border transpo	ort. The mu	ltimo	dality needs to	be increased.				
Natural transport barriers	Baltic Sea				~~				
INTERREG B*		TEN-T re			CB transport relation				
	Baltic Sea	2007-201	3; 20	14-2020	2007-2013; 2014-2020				
INTERREG A	TEN-T relation			·	Transport as priority				
2007-2013	European Corridors				No, but indirectly				
NEEDDEC	part of the region's	transport n							
INTERREG A	TEN-T relation			nsport as priority					
2014-2020	TEN-T corridors are	e not			gion, but no measures for the				
	mentioned		ımpr	ovement of C					
TEN-T cross-border	2007-2013			```	Scan. Med. Corridor)				
sections	PP12: rail + road be				kholm and Turku				
	Stockholm (SE) and			(North Sea H	· · · · · · · · · · · · · · · · · · ·				
	(FIN) but no cross-t		ons	Rail:Tartu(E	E)-Sigulda(LV)				
	directly linking both		1	D.11 D					
	PP27: rail: Helsinki	(FIN) - Tal	lınn		EE)-Riga(LV)				
	(LV)	_			emeeste(EE)—Svetciems(LV)				
Source: Author Kaiserslaute	ern 2017 based on	Interreg C	entral	Baltic 2014	4ff., 11, 2007, 27: European				

<u> Figure 46: Profile Finland –</u>	Estonia – Latvia – Sweden	(Central Baltic)	& Scandinavian Mediterranean
<u>corridor</u>			

This cross-border region is the only from the chosen ones that is separated by the sea. Furthermore, two corridors are relevant which will both be taken into account. However, the focus is laid on the Scandinavian Corridor. When looking at the corridor cross-border section, it strikes that the Scandinavian-Mediterranean Corridor does not foresee investments into the sea connection between

Source: Author, Kaiserslautern, 2017 based on Interreg Central Baltic 2014, 4ff., 11, 2007, 27; European Commission and DG Move 2015b; European Commission, DG Move, and INEA 2012; Cox 2015; Trautmann 2015.

Sweden and Finland and solely investments within the infrastructure of both countries. Still it is interesting how the corridor influences the cross-border region and its transport and will therefore be further investigated as special case study.

The next section draws conclusions on the mutual influence of the two types of soft spaces and their relevance for cross-border transport.

# 5.3.2 Mutual influence of the TEN-T corridors and the cross-border regions on cross-border transport

This chapter compares the nine case studies with each other and shows the high variety of initial situations and approaches of European cross-border regions to handle their cross-border transport situation. The influence of the TEN-T and ETC policy on the transport systems of the cross-border regions is to be evaluated based on the objectives of the policy documents.

	Population density	Economic situation	Cross-border mobility	<b>Cooperation</b> tradition	Composition of member states	Interregional disparities	Status quo cross- border transport	Natural transport barriers
Spain-Portugal (POCTEP)	rural	-	~	+	0	low	?	yes
Slovenia-Austria	rural	~	~	-	o+n	high	-	yes
France-Italy (ALCOTRA)	rural	~	+	+	0	low	~	yes
Brandenburg- Lubuskie	intermediate	-	~	~	o+n	inter- mediate	-	yes
Greater Region (BE-FR-DE-LUX)	rural/ intermediate	+	+	+	0	inter- mediate	-	partially
Austria-Hungary	rural	~	+	~	o+n	low	-	no
Germany-The Netherlands	intermediate/ urban	+	+	+	0	low	~	no
Slovakia-Hungary	rural/ intermediate	~	~	~	n	low	-	yes
Finland-Estonia- Latvia-Sweden (Central Baltic)	intermediate	۲	+	۲	o+n	high	?	yes
Logond	~	moderate	-	low/ poor	+	high/good		
Legend	o+n	old and new MS	0	old MS	n	new MS	/	no information

Table 33: Comparison of the key characteristics of the nine cases – initial situation

Source: Author, Kaiserslautern, 2017.

The **initial situation** of the seven case studies varies. Several factors are taken into account (see **Table 33**). Several cross-border regions are very rural and have often an intermediate to poor economy. Others have an intermediate density and are economically stronger. Only the cross-border region Germany/Netherlands has a rather urban density. The cross-border mobility is evaluated to be high or intermediate. All internal borders of the case studies are (very) frequently crossed. Thus, there is a need for good cross-border services and infrastructures. Four cross-border regions are experienced cooperations. The others have lower cooperation traditions because being composed of old and new EU

member states. Some cross-border regions have strong internal interregional disparities which might increase the urge to cross the border. All cross-border regions also lie in the sphere of influence of INTERREG B cooperation spaces and the majority is also covered by EU macro-regions. These two soft spaces might influence the cross-border transport development as well.

Based on different initial situations the cross-border regions show a different **status quo** of their crossborder transport infrastructure and services (see **Table 34**). Although dedicating funds to the transport development of the cross-border region the cross-border region and Central Baltic does not refer to <u>cross-border</u> transport and transport challenges in the mobility across borders. The residual regions evaluate their status quo of cross-border infrastructure to have major deficits or to be at least not sufficient. The cross-border regions ALCOTRA and Germany-Netherlands are most satisfied with the infrastructure and services across borders but still mention several shortcomings. The cross-border region Slovenia-Austria does not support any transport objectives with its cooperation programme (2014-2020) despite its challenged transport infrastructures. Other issues were considered to be more relevant.

The cross-border transport of most analysed cross-border regions is additionally hampered by natural barriers at the borders like rivers, the sea (in case of Central Baltic) and mountainous areas. These special characteristics make transport infrastructure more expensive and restrict cross-border mobility between the countries. This is solely not the case at all internal borders of the Greater Region, the cross-border region Germany-Netherlands and between Austria and Hungary.

Although TEN-T cross-border sections have been defined for all cross-border regions since the current funding period the TEN-T transport corridors have been mentioned more often in the INTERREG A programmes of the last funding period (see **Table 34**).

	Macro	INTERREG	relat	N-T ion of FC	Trans Prio		TEN-T CB sections		
	region	ion B		2014- 2020	2007- 2013	2014- 2020	2007- 2013	2014- 2020	
Spain-Portugal (POCTEP)	no	yes	+	no	yes	indirect.	yes	yes	
Slovenia-Austria	yes	yes	no	no	indirect.	no	no	yes	
France-Italy (ALCOTRA)	yes	yes	~	no	indirect.	yes	yes	yes	
Brandenburg- Lubuskie	yes	yes	+	+	yes	yes	no	yes	
Greater Region (BE- FR-DE-LUX)	no	yes	۲	۲	indirect.	indirect.	yes	yes	
Austria-Hungary	yes	yes	no	+	yes	yes	yes	yes	
Germany-The Netherlands	no	yes	+	+	indirect.	indirect.	yes	yes	
Slovakia-Hungary	yes	yes	۲	-	yes	yes	yes	yes	
Finland-Estonia- Latvia-Sweden (Central Baltic)	yes	yes	~	no	indirect.	yes	yes	yes	
Legend	~	moderate	-	low/poor	+	high/good			

Table 34: Comparison of the nine soft spaces' policies and mutual relations

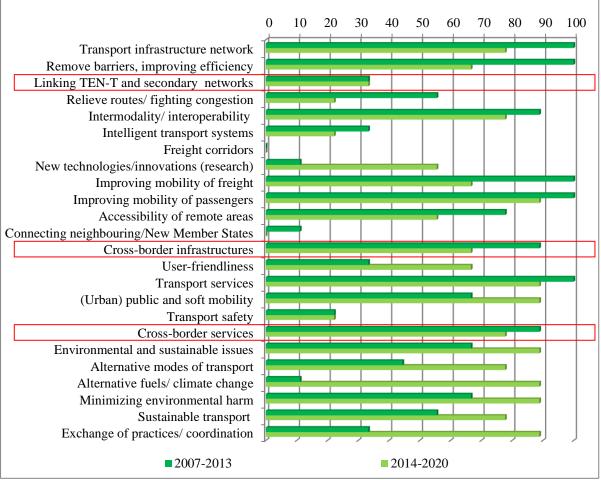
Source: Author, Kaiserslautern, 2017.

In the last funding period (2007-2013) 44% of the cases had an own transport **priority**. This ratio was increased to 56% in the second funding period (2014-2020). Several cross-border regions which did not define an own transport priority axis supported transport-related topics within other categories. When

comparing the two different ETC funding periods of the nine case studies, most regions (see appendix) have increased the variety and level of detail of the promoted **transport objectives**. Solely the Greater Region decreased the number of aims and the cross-border region Slovenia-Austria stopped promoting transport objectives at all. The latter case is the only of the nine cross-border regions which does not support any transport projects in the current funding period.

The popularity of every transport objective varies between the two funding periods. The main difference is the growth of environmental and sustainable concerns in the current funding period (2014-2020) although it was not promoted significantly more by the EU policies (see **chapter 4**). Also, the exchange of practices in the field of transport is named more often. In comparison to the other cross-border regions the Brandenburg-Lubuskie cross-border region promotes the highest number of transport objectives in the current funding period. The infrastructure related objectives were promoted less than in the last funding period.

# Figure 47: Relevance of the transport objectives of the case studies' cross-border regions in the two funding periods



Source: Author, Kaiserslautern, 2017.

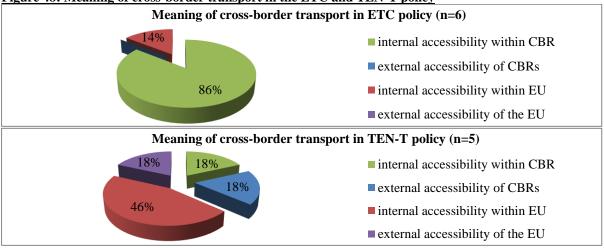
Despite more transport priorities and a higher promotion of transport objectives in the second funding period the contribution to the concrete **cross-border transport-related** objectives (see **Table 35**) was decreased. As stated above the Central Baltic cross-border region did not address cross-border transport at all. The linkage of TEN-T and secondary networks is promoted by few cross-border regions. Brandenburg-Lubuskie is the sole which has promoted it in the last and current funding period. The other two objectives have been promoted more frequently but a little less in the second funding period.

					Greater Region		ALCOTRA		Brandenburg- Lubuskie		Germany- Netherlands		Slovakia- Hungary		Slovenia- Austria		POCTEP		Average in %	
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Linking TEN-T and secondary networks		1			1				1	1				1			1		33	33
Cross-border infrastructures	1	1			1	1	1	1	1	1	1		1	1	1		1	1	89	67
Cross-border services	1	1			1	1	1	1	1	1	1	1	1	1	1		1	1	89	78

<u>Table 35: Contribution of the nine INTERREG programmes to the EU cross-border transport objectives</u> between 2007 and 2013 (1) and 2014 and 2020 (2)

Source: Author, Kaiserslautern, 2017.

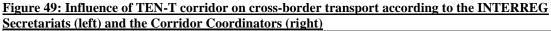
The **survey** on the influence of the TEN-T corridors and ETC programmes on cross-border transport was completed by six of the nine INTERREG secretariats and five of nine core network corridor coordinators. The survey shows that the **term 'cross-border transport'** in the ETC policy is much more restricted to the internal accessibility within cross-border regions whereas the TEN-T policy is said to aim at enhancing different types of cross-border transport with a focus on the internal accessibility within the EU (see **Figure 48**). Thus, with a similar wording different objectives are followed. In the further analysis, however, the focus was laid on the internal cross-border transport within the cross-border regions.

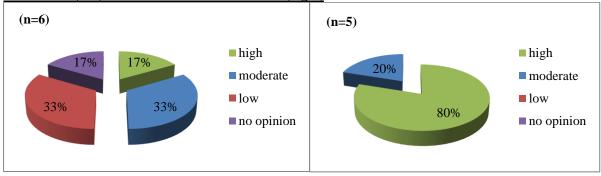




The **TEN-T corridors' influence** on cross-border transport is considered to be much higher by the corridor coordinators than by the INTERREG secretariats (see **Figure 49**). The INTERREG secretariats are more sceptical because the corridors would only cross parts of the cross-border regions and be of higher relevance for freight than passenger transport. The Mediterranean corridor is considered not to be efficiently developed to influence the cross-border transport of the cross-border region. According to another INTERREG secretariat the corridor is not more relevant than the national infrastructures for the cross-border transport within the cross-border region. The TEN-T coordinators consider the corridors to be highly relevant because they bridge the national investments which end at the border, facilitate the communication between and coordination of stakeholders in the corridor forums and support the management and funding of cross-border projects. Still it is acknowledged that the corridor focuses solely on the main cross-border transport infrastructures and not on the more comprehensive network.

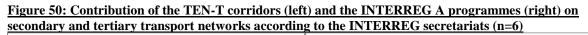
Source: Author, Kaiserslautern, 2017.

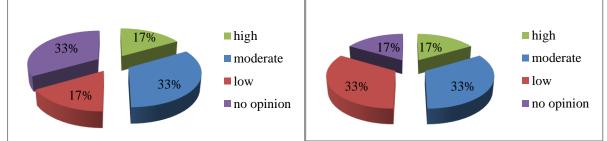




Source: Author, Kaiserslautern, 2017.

Also, the contribution of the TEN-T corridors to the secondary and tertiary networks of the cross-border regions is said to be higher according to the TEN-T corridor coordinators. Still the influence is said to be lower than on cross-border transport in general this acknowledges that the TEN-T corridors focus more on the primary infrastructure networks. According to the INTERREG secretariats the contribution of both - the TEN-T corridors and the INTERREG A programmes - to secondary and tertiary transport networks is rather moderate or low (see **Figure 50**). This is because the TEN-T corridors would focus on transnational connections and not on the lower infrastructure networks and the INTERREG programmes do rarely fund projects with these objectives – among others, because no infrastructures could be funded. Also, the TEN-T coordinators acknowledge that the corridors do not directly invest into the comprehensive TEN-T network. Still they would structure the funds and thereby support the secondary and tertiary networks.

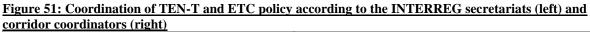


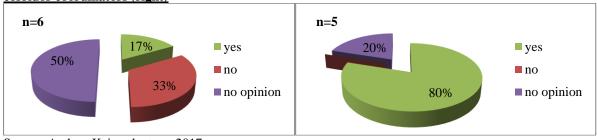


Source: Author, Kaiserslautern, 2017.

50% of the cross-border regions which completed the questionnaire stated that the INTERREG programmes of the last funding period (2007-2013) have improved the cross-border transport of the cross-border region. All see a need for further enhancement of cross-border transport. Additionally, all except of one programme - which does not follow a transport priority - aim at contributing to it in the current funding period (2014-2020).

Only 40% of the corridor coordinators think that the TEN-T priority projects have strongly contributed to cross-border transport in the respective cross-border regions because of a strong EU financial support. Another 40% are said to have contributed to a moderate degree because of missing priority projects in the respective cross-border regions and a too low financial support. One corridor coordinator considers the contribution to have been low because the funds are said to have been spent solely on the nationally promoted priority projects. The statements contradict each other and show that the influence cannot be generalised: apparently only some cross-border regions have benefited from the TEN-T priority projects in the last funding period because of their different attribution of funds and locations.





Source: Author, Kaiserslautern, 2017.

The corridor coordinators consider to a higher degree than the INTERREG secretariats that the ETC and TEN-T **policy** were coordinated (see **Figure 51**). This is said to have been ensured by the cooperation of the different *Directorates General* of the European Commission respectively by the European Commission when approving the programmes. Still because of different objective focuses of the policies no detailed coordination might take place.

40% of the corridor coordinators believe that the TEN-T **corridor work plans** and the INTERREG cooperation **programmes** have been coordinated to a certain degree as the DG Move is said to have been consulted in the cooperation programme and the regions belonging to the cross-border regions are said to be involved in the corridor forums. Additionally, an internal coordination at the European Commission is said to have taken place. A direct coordination is <u>not</u> acknowledged by the INTERREG secretariats. 67% of the INTERREG secretariats and 60% of the corridor coordinators wish to increase such a coordination in order to make investments more efficient and strengthen complementarities. The residual stakeholders argue that no further coordination would be needed because of the anyway restricted funds of INTERREG and a very complex coordination process.

The **INTERREG secretariats** propose that the TEN-T coordinators should involve local and regional stakeholders more, focus their support on projects which contribute to a timely implementation of the TEN-T networks and to identify further relevant projects. Additionally, in order to contribute to cross-border transport the TEN-T corridors should facilitate a higher travel speed of freight and passenger transport, and support further investments in parallel sections of relevance for the cross-border regions besides the main axis. Additionally, it is proposed to offer TEN-T support for more transport sections that are more relevant for the regional levels: it should become easier to apply for these funds for local and regional transport stakeholders.

According to the **corridor coordinators** the INTERREG cross-border regions should facilitate the linkage of secondary and tertiary networks to the TEN-T corridor and support the removal of bottlenecks in these networks. Additionally, it is proposed that the cross-border regions get in contact to the corridor coordinators and follow the EU TEN-T calls. Local stakeholders and initiatives should lobby and communicate their ideas at the higher domestic levels to ensure the cross-border transport-related objectives are represented and coordinated with other projects at EU level. Additionally, more funds should be made available to be able to improve all cross-border transport sections.

The proposals of the two parties show the wish to increase the complementarities between the two programmes which requires a frequent communication between the responsible stakeholders. The survey, however, showed that there is not much personal coordination between the INTERREG secretariats and TEN-T corridor coordinators: none of the TEN-T corridor coordinators has been in contact with the INTERREG secretariats and vice versa. Furthermore, the interviewed INTERREG secretariats do not inform the corridor coordinators about their funded transport projects or coordinate their projects with the corridor projects. Two corridor coordinators stated that they inform the cross-border regions about current TEN-T projects. Only the North Sea Baltic corridor coordinator stated that

he coordinated the corridor projects with the INTERREG projects. However, both parties - except of two INTERREG secretariats - are in contact with transport stakeholders from the cross-border region. This is facilitated, among others, by the corridor forums, monitoring committee meetings and INTERREG projects. This includes national and regional ministries, chambers of commerce and industry and other transport stakeholders.

67% of the INTERREG secretariats and 100% of the corridor coordinators consider it to be beneficial for the enhancement and coordination of cross-border transport projects to increase the **mutual communication**. This might be a potential starting point for enhanced coordination of the two EU programme investments in cross-border transport.

All corridor coordinators consider the planning of and the investments in the **TEN-T corridors at EU level** to be good because of emphasizing the relevance of European continuous transport networks, i.e. cross-border sections and bottlenecks, in the context of EU and domestic investments. Cross-border sections could not be developed by the member states alone but needed EU coordination. Additionally, only projects with the highest European added value would be facilitated and the financial support structure is said to be decisive for the implementation. Therefore, all coordinators are convinced that the TEN-T core network will be implemented until 2030 and the comprehensive network until 2050. The INTERREG secretariats are more sceptical respectively undecided. Only two secretariats expected that the comprehensive network will be implemented until 2050.

50% of the INTERREG secretariats and 60% of the corridor coordinators think that **soft spaces** such as the corridors and cross-border regions are relevant for an effective implementation of cross-border transport. The residual stakeholders did not know how to answer the question. No stakeholder considered soft spaces to be irrelevant. As the cases have shown the soft spaces are used as a platform of coordination and exchange: policy documents and programmes are developed by the involved **member states and the EU to coordinate** the future development of the soft spaces. These coordination processes can be very complex and several negotiations might be needed until a consensus can be reached. The EU support is an important incentive to get through this process.

The nine preliminary case studies in combination with the survey show that there are several mutual relations between the two types of soft spaces – cross-border programmes and corridors – in the field of transport. Especially the INTERREG programmes, belonging to a non-sectoral EU policy regularly refer to the TEN-T and transport in general. However, the promotion between the two funding periods varies. Especially in the current funding period (2014-2020) there are some tendencies to demarcate the programmes from the TEN-T and transport development in order to avoid doublings. Still the majority of the programmes consider the transport development to be very relevant in their cross-border region.

Besides the policy documents developed by both parties, which promote several EU objectives, and the reference to cross-border transport and the TEN-T on the paper, personal communication between the responsible stakeholders seems to be missing in order to concretely coordinate the contribution to cross-border transport which might be improved in the future.

The next chapter analyses the formal and practical implementation of the two EU policies on crossborder transport in two of the nine described case studies – going further into details.

As argued in the scientific literature the **character of a policy**, as described in **chapter 4**, matters and can help to roughly estimate the influence of an EU policy. However, the real influence depends on the **initial situation** and **involved actors** in the country of implementation. Therefore, this chapter analyses the influence of European policies on cross-border transport in two main cross-border regional **case studies**. Based on the analysis of the TEN-T corridor strategies and ETC-Programmes, and the nine cases of the last chapter two case studies were chosen for an in-depth analysis according to a criteria list.

This analysis includes detailed information on the **initial situation** of the cross-border regions, including statistics, the status quo of the transport infrastructure, the national, regional, subregional and cross-border policy documents of the member states involved which influence the transport development of the cross-border region, the conducted transport projects and is based on a document analysis and interviews with transport and cross-border cooperation experts from the different administrative levels of the involved countries and cross-border institutions.

After a short explanation for the choice of the two in-depth case studies, the German transport system is described because being relevant for both case studies. In the following two sections, the two case studies are analysed, illustrating their initial situations, the functioning of the involved countries transport systems and the domestic and cross-border policy documents' relation to the EU policy objectives, including cross-border transport. Additionally, the formal and practical implementation of the EU policy objectives is explored and evaluated. The last section of this chapter compares the two case studies and draws conclusions on the influence of EU policies on cross-border transport.

# 6.1 Choice of in-depth case studies of cross-border regions crossed by a TEN-T corridor

The two case studies represent different initial situations in their cooperation structures and transport development in order to find out if this leads to a different influence of the EU policies on cross-border transport (see **chapter 1**).

The first cross-border region case study (Greater Region) involves four old member states (France, Belgium, Germany and Luxembourg) and five administrative regions. It is based on a very strong cooperation tradition and historic relatedness. Several interregional disparities exist between the five administrative regions. The cross-border transport situation is characterized by the largest cross-border commuting numbers in the EU which leads to congested infrastructures and an insufficient cross-border public transport offer. Some internal borders of the cross-border region are separated by rivers, others are not demarcated by a natural barrier but only divided by an administrative national border.

The second cross-border region (Brandenburg-Lubuskie) is a rather new EU cooperation area. It involves the 'new' member state Poland and the 'old' member state Germany. Some interregional disparities exist between the two administrative regions in terms of higher wages and living costs in Germany. The transport infrastructure and services across-borders are not in a good shape. The German transport infrastructure is said to be in a better condition. Transport flows across the border are hampered by two border rivers. In contrast to the Greater Region the cross-border region lies in the sphere of influence of the EU strategy of the Baltic Sea Region (EUSBSR) - a macro-regional strategy (see **Table 36**).

The Greater Region has an intermediate population density and is overall in an economic good estate which is not the case in the sparsely populated and shrinking German-Polish case study region.

The case study areas are both crossed by a corridor linked to the North Sea: the North Sea Baltic Corridor (Brandenburg-Lubuskie) and the North Sea Mediterranean Corridor (Greater Region). The Greater Region is additionally crossed by the Atlantic Corridor.

When comparing the cross-border region's territorial scope, the Greater Region (65.401m<sup>2</sup>) is three times larger and involves four instead of two member states which makes the cooperation more complex because of a higher variety of national regulations and systematics in the field of transport development. Several national borders need to be crossed to be completely mobile in the Greater Region.

The cross-border transport situation between the two case studies Greater Region and Brandenburg-Poland strongly differs because of different cooperation traditions: in the Greater Region cross-border cooperation has a much longer tradition whereas the cross-border region between Poland and Germany has been separated by the iron curtain and is therefore said to be integrated internally to a lower extent than the other cross-border region (Ahrens and Schöne 2008, 15).

In the Greater Region the ETC programme has only slightly referred to the TEN-T whereas the TEN-T corridors were extensively promoted in both programme periods in the German-Polish cross-border region. All programmes, however, defined transport as a priority. In both regions the TEN-T policy defined TEN-T cross-border sections to be improved, except of the 2007-2013 funding period in the Polish-German border region. Thus, the EU policies foster the improvement of the cross-border transport development. Their influence is to be evaluated in the further course of this chapter.

	Status quo CB	Natural	TEN-T relat	ion of ETC	Transpo	ort Priority	I	TEN-T C	CB sections
	Transport	Barriers	2007-2013	2014-2020	2007-2013	2014	-2020	2007-2013	2014-2020
Großregion (BE-FR-DE-LUX)	-	partially	~	~	yes	yes		yes	yes
Germany/Brandenburg-Poland	-	yes	+	+	yes	yes		no	yes
	density	economy	CB mobility	tradition	Composition of member states	CBR interregional disparities		-	
Greater Region (BE-FR-DE-LUX)	rural/ intermediate	+	+	+	0	intermediate		no	yes (2007-2013)
Germany/Brandenburg-Poland	intermediate	-	~	~	o+n	intermediate		yes	yes
	~	moderate	-	low/poor	+	high/good			
Legend	o+n	old and new MS	0	old MS	n	new MS		/	no information

Table 36: Overview of the characteristics of the in depth case studies

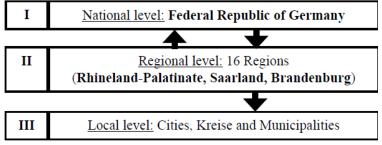
Source: Author, Kaiserslautern, 2017.

As Germany is involved in both case studies, in the following, the general functioning of the German transport system is described.

# 6.2 The German transport system

Germany is a federal state which consists of 16 regions (*Länder*) (see **Figure 52**). The latter have their own responsibilities and sovereign rights. The constitution defines the respective responsibilities of the national and regional levels as well as shared responsibilities. Generally, the regions are competent in all cases if not defined differently in the constitution. Additionally, the regions are involved in the national legislation. At the local level the municipalities and *Kreise* belong to the administrative structure of Germany and autonomously take care of local and national delegated issues. The tasks of the three administrative levels are demarcated from each other and <u>not</u> fundamentally structured in a top-down manner. Instead relations exist in both directions. When fulfilling national delegated tasks, the municipalities are controlled by the regions. Local issues, however, are implemented in their own responsibility (Bundesministerium des Innern Germany 2014, 14ff.).





Source: Author, Kaiserslautern, 2017.

# 6.2.1 Functioning of the German transport system

In Germany, transport is considered as a sectoral planning. However, the transport planning system is organised similarly to the spatial planning system and is connected strongly with it.

# National level

The national level is formally responsible for the construction of national **roads**, including highways and *Bundesstraßen* (national roads) as well as national railroads and waterways. Furthermore, it has to connect transport hubs (ports, airports and logistical centres) to the above named infrastructure tracks at national level (Bundesministerium für Verkehr und digitale Infrastruktur 2016, II). In practice, however, the regional (*Länder*) level implements and maintains the national road infrastructure tasks on behalf of and financed by the state. Besides that, the regional level is involved in the definition of the national infrastructures that are to be established or expanded (Interview Harmeling 2016). The national level is said to rarely define own transport investment objectives. The majority is based on regional proposals (Interview Chlench 2016; Interview Glöckner 2016). The national level develops a **legal and technical framework** for these infrastructures as well as for the regional public rail transport (Bundesministerium für Verkehr und digitale Infrastruktur (BMVI) 2017). Additionally, it finally decides about the investments (Interview Sauer 2016).

National **railroads** are owned by the *Deutsche Bahn AG* (DB AG). They maintain the tracks and are responsible for the establishment of new investments. The country Germany, however, mainly finances these investments (Bundesministerium für Verkehr und digitale Infrastruktur 2016, 28; Interview Harmeling 2016). Additionally, the national level and the DB AG can apply for European CEF funds (Interview Sauer 2016). The national level is also responsible for long distance rail connections - also across borders (Interview Ludwig 2016; Federal Republic of Germany, art.37 para.6a; Interview Neumann 2016).

Also the residual national transport infrastructures, i.e. roads and waterways are financed by the national level (Interview Harmeling 2016).

The national level is responsible to implement **EU directives** into national law. A department of the Federal Ministry of Transport and Digital Infrastructure - which is organized under the field of transport infrastructure planning - steers the development of the **TEN-T**. It is also responsible for further international investment programmes (Federal Ministry of Transport and Digital Infrastructure n.y.).

The national level **finances regional** and **local transport projects** (Land Brandenburg 2002, 16f.) and supports the regional and municipal territorial authorities in the provision of public transport services (Bundesregierung Deutschland 2017, 167). The so-called *Regionalisierungsmittel* are transferred to the *Länder* to fund the **regional public rail** transport. The regions decide on their own how to invest these funds in their regional railway services. This is based on a decision to decentralise the national task to take care of regional rail transport (Interview Kurnol 2016; Bundesministerium für Verkehr und digitale Infrastruktur 2016, 4). Additionally, *Bundesmittel* (national funds) are available for the improvement of **public transport in municipalities** (*Entflechtungs – und Gemeindeverkehrsfinanzierungsgesetz*) (BVWP 2030:4). Besides that, there are further special national funds for freight transport and other focuses (Interview Ludwig 2016).

The expansion and maintenance of transport infrastructures is oriented on the **demand**. Besides the provision of infrastructure the development of transport in general is said not to be actively steered by the national transport ministry (Interview Kurnol 2016). In the following **national policies** which relate to the transport development are presented.

At the national level guiding principles and action strategies for the spatial development of Germany (*Leitbilder und Handlungsstrategien für die Raumentwicklung in Deutschland*) are defined. These also relate to the transport development. The guiding principles shall ensure a sustainable and balanced spatial development and equal living conditions. They shall be implemented into practice by spatial planning tools and the cooperation with sectoral planning at the lower administrative levels (Ministerkonferenz für Raumordnung Deutschland 2016, 2).

The *Raumordnungsbericht (ROB)* (spatial development report) is a spatial planning tool which has to be updated periodically. It treats current spatial trends, planning projects and the influence of EU policies on the German territory. Also, the transport development is described. Based on the status quo it defines action needs for the future spatial development policy (ROB 2011: 7).

The Bundesverkehrswegeplan (BVWP) is a national plan which defines the investment priorities of the national transport infrastructures including roads, railways and waterways. It is established by the Federal Ministry of Transport and Digital Infrastructure (Bundesministerium für Verkehr und digitale Infrastruktur). Only those projects with the highest priorities can be funded and implemented. This does not involve the regional (Länder) transport infrastructures. Still the regions (Länder) are involved in the contents of the plan in a participative form: they propose rail and road investment projects for their regional territories. The national level, however, takes the final decision on the integration of the projects into the plan (Interview Harmeling 2016). Waterway projects can only be proposed by the national transport ministry and the Federal Waterways and Shipping Administration (Interview Kurnol 2016). The BVWP's priorities are defined based on future development scenarios, a cost-benefit calculation and spatial and environmental concerns (Ahrens and Schöne 2008, 42ff.). A clear focus is laid on infrastructures and not on the definition of general transport development aims. Environmental aims are said to be taken into account but the plan does not primarily aim at contributing to environmental protection (Bundesministerium für Verkehr und digitale Infrastruktur 2016, 16). The current plan was established in 2016 and replaced a plan of 2003. Based on the BVWP Bedarfspläne (requirement plans) are developed for each transport mode which contain investment priorities. Additionally, every five

years an *Investitionsrahmenplan* (investment framework plan) is prepared which defines infrastructure investment needs. The yearly financing rates are decided by the German *Bundestag*. To implement prioritized projects different procedures need to be applied, depending on the individual case, such as *Raumordnungsverfahren*, *Linien and Trassenbestimmungsverfahren* and *Planfeststellungsverfahren* (ibid., V). The current BVWP takes into account some investments into infrastructures which connect the national administrative **border**. In its requirement analysis it does, however, not define the connection to its neighbouring member states as a priority (Bundesministerium für Verkehr und digitale Infrastruktur 2016; Interview Neumann 2016).

At German national level, **prognoses on structural data and transport** (*Verkehrsprognose 2030* and *Strukturdatenprognose*) are developed which also refer to **cross-border transit traffic** (Interview Nagelkrämer 2016; 2016; 2016).

Besides the main transport planning tools, the national level has defined several **strategic documents** which formulate aims for the future development which (partially) influence the transport development. Sometimes they only address subfields. An example is the *Mobilitäts- und Kraftstoffstrategie (MKS)* (mobility and fuel strategy) of 2013. It defines potential ways to implement the aims of the *Energiekonzept* (energy concept) of Germany in the field of transport (Bundesministerium für Verkehr, Bau und Stadtentwicklung 2013, 5). Furthermore, the *Strategie für nachhaltigen Güterverkehr* (Strategy for sustainable freight transport) defines aims concerning the development of freight transport and its environmental impact. The *Klimaschutzplan 2050*, which was adopted in 2016, defines a *Leitbild* concerning the adaptation of transport mobility to reduce its contribution to climate change until 2050. Additionally, in 2017 a national strategy on sustainability (*Deutsche Nachhaltigkeitsstrategie*) was adopted which includes several transport-related aims and sustainability indicators (Bundesregierung Deutschland 2017).

Furthermore, the national level has defined the **funding framework for the EU funds** and their support of transport investments in the *Nationaler Strategischer Rahmenplan* and the *Operationelles Programm EFRE Bund Verkehr* for the funding period 2007-2013 and in the German Partnership Agreement with the European Commission for the current funding period 2014-2020.

To sum up, the German national level develops transport infrastructures of national relevance only until the national borders but not further. Additionally, it has the competence to manage high speed rail connections across national borders and is responsible for the TEN-T development.

#### Regional level (Länder)

The regional administrative level is organized under the competence of the *Länder*. The regions are responsible for maintaining and constructing the **transport hubs** such as ports, airports, logistical centres etc. (Bundesministerium für Verkehr und digitale Infrastruktur 2016, II). Furthermore, they take care of **regional public transport** (ibid., 40).

Often a *Landesverkehrsplan* (transport plan of the region) is developed. This depends on the regulations of the *Länder*. It does not define concrete concepts or projects. This has to be done on lower levels in sectoral concepts but also in the regional *Landesraumordnungsplan* and subregional *Regionalplan* (Land Brandenburg 2002, 6f. and 18) which are spatial planning documents. Additionally, a so-called *Landesnahverkehrsplan* (*LNVP*) can be established which defines the development of the regional public transport offer (see more in **chapter 6.4.2**). Furthermore, a *Bedarfsplan* is developed on the *Länder* level which defines the investment needs for the roads of the *Länder* as it is done at national level (Landesbetrieb Mobilität Rheinland-Pfalz n.y.).

The regional **roads** of the *Länder* are financed by regional funds (Interview Harmeling 2016; Interview Neumann 2016). As was stated above, transport investments in **public rail transport** are financed by

the *Regionalisierungsmittel* which have been offered to the *Länder* by the German national level since the reform of the railways in 1994. The reform decentralised the responsibility of regional railways (*Schienenpersonennahverkehr*) to the regional level (*Länder*) (Interview Kurnol 2016; Bundesministerium für Verkehr und digitale Infrastruktur 2016, 4; Interview Ludwig 2016). Regional **cross-border transport services** are not financially supported by the national level as this is considered to be the task of the regional (*Länder*) level (Interview Schreiner 2016). Thus, the regional level is responsible for the development and funding of regional cross-border services.

#### Subregional level

For spatial planning, a subregional level was created in most German regions. This level does not have other administrative tasks than organizing the **subregional planning development**. As already mentioned above, at this level subregional plans (*Regionalpläne*) are established. They concretize the regional planning and define supralocal and suprasectoral designations at a level between the regional planning of the *Länder* and the local planning of the municipalities. In its planning it also has to take into account sectoral planning interests, e.g. the transport infrastructure development, and it can define additional aims for the spatial development of the subregions (Land Brandenburg 2002, 18 and 30).

Additionally, the management of **regional public transport** is in some regions, e.g. Rhineland-Palatinate, organized in subregional or inter-municipal entities. Depending on the location of the subregional planning region cross-border transport is considered to be more or less relevant (see **chapters 6.3.2** and **6.4.2**).

#### Local level

The municipalities and *Kreise* are responsible for the steering of the residual **public transport** (buses etc.) and the construction of the *Kreis*-roads. Additionally, local *Nahverkehrspläne* (public transport plans), which mainly contain a description of the public <u>passenger</u> transport offer (Interview Kramer 2016), or bicycle concepts can be established for instance. At local level urban and transport planning are to be integrated (Land Brandenburg 2002, 18).

The expansion and new establishment of **municipal road infrastructures** can be partially funded by the *Länder*, the maintenance has to be paid by the municipalities and *Kreise* themselves. Also **bicycle paths** and **train station** renovations can be supported by the regional level with the *Entflechtungsmittel* of the Gemeindeverkehrsfinanzierungsgesetz (GVFG) Programme which they access from the national level (Interview Harmeling 2016). Besides that, municipalities or private investors can directly apply at the national level for several funding programmes, e.g. for the development of bicycle paths (ibid.). Also in the field of public transport, *Entflechtungsmittel* can be accessed by municipalities, among others, for the renovation and equal accessibility of **bus stops**. The national GVFG programme fosters large scale investments in the expansion of public transport. 60% are paid by the national level, 30% by the local level and 10% by the transport provider (Interview Ludwig 2016). Thus, small scale public transport connections across-borders need to be coordinated also between the local levels.

More detailed information on the regional, subregional and local transport planning documents is provided in the later case studies in which the transport systems of the regions involved are described (see **chapters 6.3.2** and **6.4.2**). The German *Länder* have slightly different documents.

# 6.2.2 German national policy documents influencing cross-border transport in cross-border regions

In the following the contribution of the most important German national transport-related policy documents to cross-border transport is analysed. Additionally, the policies' objectives are compared with the EU policies' cross-border transport-related objectives addressed in **chapter 4.3**. More information on the methodological approach of the document analysis can be found in **chapter 1.3**.

The 12 analysed national German policies (see **Table 37** and **Figure 53**) consist of three pure transportrelated policies, four policies established in relation to the EU, two general spatial planning documents, as well as four strategies, concepts and plans which relate to energy, mobility, fuels, climate change and sustainability.

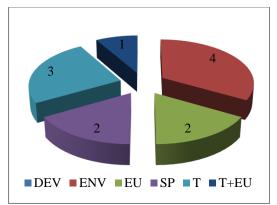


Figure 53: Composition of the German national policy documents (n=12)

Source: Author, Kaiserslautern, 2017,

Only 58% of these 12 national German policies relate to cross-border transport and even less (33%) mention the TEN-T. The older EU related policies and the spatial planning policies are the only documents which relate to the TEN-T. The pure transport-related policies do not mention the TEN-T.

Table 37: German national policies which influence the transport development in cross-border regions

Name of the policy document	CB-transport
Nationaler Strategischer Rahmenplan (2007-2013)	yes
Operationelles Programm (OP) EFRE Bund Verkehr 2007-2013	yes
Strategie für nachhaltigen Güterverkehr (2009)	yes
Energiekonzept (2010)	
Raumordnungsbericht (2011)	yes
Mobilitäts- und Kraftstoffstrategie (2013)	
German Partnership Agreement (2014-2020)	yes
Leitbilder und Handlungsstrategien für die Raumentwicklung (2016)	yes
Nationales Reformprogramm Deutschland (2016)	
Bundesverkehrswegeplan 2030 (2016)	
Klimaschutzplan 2050 (2016)	
Deutsche Nachhaltigkeitsstrategie (2017)	yes
Second Author Valeralesters 2017	

Source: Author, Kaiserslautern, 2017.

In the following the promotion of cross-border transport and the TEN-T in the *Leitbilder und Handlungsstrategien für die Raumentwicklung in Deutschland*, a national spatial policy document, is presented. The other documents' concrete objectives in this relation can be found in the **appendix**.

#### Leitbilder und Handlungsstrategien für die Raumentwicklung in Deutschland (2016)

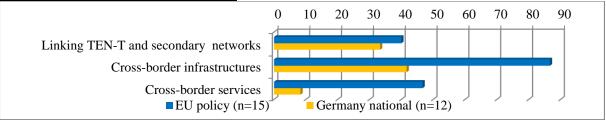
The document promotes enlarged cross-border cooperation, among others, in cross-border metropolitan areas and in the field of spatial planning, because of Germany's central position in Europe (Ministerkonferenz für Raumordnung Deutschland 2016, 3ff.). Additionally, it argues that the cross-border spatial monitoring should be reinforced (ibid., 7). Spatial planning actors should be involved in the development of Cooperation Programmes for the EU Structural Funds (ibid., 7). Besides that, logistical hubs are to be integrated in supraregional logistic concepts taking into account cross-border linkages (ibid., 9).

Furthermore, the TEN-T network shall be expanded and connect important metropolitan hubs. Additionally, secondary and tertiary transport systems shall be linked to the TEN-T to ensure the access of all regions and their subregions. Transport bottlenecks of metropolitan regions should be removed – also at cross-border sections (ibid., 6ff.).

The area between Berlin (DE) and Poznan (PL) is defined as potential cross-border integration space (*grenzüberschreitender Verflechtungsraum*) along the North Sea Baltic TEN-T Core Network Corridor. Parts of the Greater Region are depicted as a metropolitan border region (ibid., 26f.).

When analysing the overall relevance of the cross-border related EU transport objectives in all national German policies depicted in **Table 37** (see **Figure 54**) the improvement of cross-border infrastructures and services is addressed much less in the German national policy documents than in the EU policies (45% and 38% deviation from the EU relevance). The linkage of TEN-T and secondary transport networks has a little lower but still similar importance-level as at EU level, with a low deviation of 7%.

Figure 54: Comparison of the relevance of cross-border transport and TEN-T in the German national policy objectives and EU policy objectives



Source: Author, Kaiserslautern, 2017.

The TEN-T seem to be a rather spatial planning related concept – as they were also promoted in the European Spatial Development Perspective (ESDP) and its successor documents. In general, it can be stated that the national policies do not promote the objectives of an improved cross-border transport as much as it is done at EU level. The TEN-T are also mentioned less than at EU level.

According to Kurnol, the German BVWP is considered to have strong impact on the transport development of Germany. As it however hardly relates to the neighbouring countries and does not define special aims and priorities for cross-border transport or TEN-T developments, its influence on cross-border transport is considered to be low. In the case that infrastructure projects leading to the national borders are defined as priorities, the influence on cross-border transport would be higher. Kurnol considers it difficult to measure the influence of the other national transport-related strategies that do not have implementation mechanisms. Still an indirect influence might exist (Interview Kurnol 2016).

Concrete transport projects are only named by the BVWP. The BVWP is a very important transport policy for the infrastructure development of Germany. However, it does not refer to the TEN-T nor does it directly aim at improving cross-border transport at all. However, it names several investment projects which are of relevance for cross-border transport because they concern infrastructures which lead to the national border. Projects of relevance for the Greater Region and the cooperation between Brandenburg and Lubuskie are mentioned. The BVWP considers in its prognosis a growth of transport flows between Germany and Poland and examines the needs for further investments. However, it is uncertain if the national level coordinates the BVWP contents with its neighbouring countries (Interview Neumann 2016). A list of the defined concrete projects relevant for cross-border transport can be found in the appendix.

After having presented the German transport system which is relevant for both in-depth case studies, the following two sections address the two case studies.

# 6.3 Main Case Study 1: Greater Region - North Sea Mediterranean Corridor & Atlantic Corridor

The aim of this section is to analyse the influence of the TEN-T and ETC policy on the cross-border transport system in the Greater Region. First of all, the initial situation of the cross-border region is described, followed by a presentation of the Belgian, French, German regional and Luxembourgish transport systems. Third, the relation of the countries' domestic and cross-border policy documents to the EU transport objectives and cross-border transport is analysed. Fourth, the formal implementation of the EU objectives is evaluated differing between the different administrative levels. Fifth, the practical policy implementation is explored by investigating the implemented EU and non-EU funded cross-border projects. At the end of the case study, the impact of the EU policies on cross-border transport in the Greater Region is evaluated.

# 6.3.1 Initial situation

This chapter describes the initial situation of the Greater Region including basic information on the cross-border regions' location, history of cooperation, statistical data, institutions and the cross-border transport situation. In scientific literature the initial situation is considered to be of high relevance for the EU policy implementation as the latter is said to vary in different domestic contexts. Therefore, the information of the initial situation of the first case study is used in the later comparison with the second case studies as differentiating factor.

*Territorial demarcation of the cross-border region's soft space & history of cooperation* The cross-border region Greater Region is located very centrally in the EU as it involves parts of France, Belgium and Germany as well as the whole country Luxembourg (see **Image 19**). All countries are founding members of the European Union.

The following case study analysis will focus on the INTERREG A Cooperation Programme's boundary that contains a slightly smaller territory as can be seen in **Image 19**. It includes the French former region Lorraine<sup>44</sup>, the Grand Duchy of Luxembourg, the German region Saarland as well as parts of the Belgian region Wallonia (the provinces Luxembourg and Liège) and most parts of the German region Rhineland-Palatinate (excluding the planning region Mittelrhein-Westerwald and the *Kreis* Bad Kreuznach).

Cooperation in the area has existed already before the ETC policy promoted it: it started in a smaller and more natural cross-border region, later-on it was enlarged to the current shape (Ministerium für Finanzen und Europa Saarland n.y.).

In the beginning the cross-border cooperation comprised solely the countries Germany, France and Luxembourg which formed a **governmental commission** to coordinate cross-border cooperation in 1971. This commission decided in the same year to found a regional commission *Saarland – Lothringen – Luxembourg – Trier/Westpfalz* including the Saarland, the French former administrative region Lorraine<sup>45</sup>, Luxembourg and the planning regions Trier as well as *Westpfalz* which belong to Rhineland-Palatinate (ibid.). The involved territories formerly belonged to the European Coal and Steel Community (*Montanunion*). The economic relations across the countries were the basis for the political cooperation in a common cross-border area without naming and organizing it explicitly. The economy of the region was mainly based on the coal and steel industry, but had to adapt because of the coal and steel crisis and became object of structural change. In times of crisis, the regions tried to commonly solve the economic challenges and cooperated across borders (Interview Harmeling 2016; Helfer 2015, 3ff.; Interview

<sup>&</sup>lt;sup>44</sup> Lorraine was comprised with the Alsace and Champagne-Ardenne to the new region Grand-Est. Still only the territory of Lorraine belongs to the cross-border region.

<sup>&</sup>lt;sup>45</sup> Lorraine is since 2016 part of the new French region "Grand-Est" which comprises the former *regions* Alsace, Champagne-Ardenne and Lorraine.

Jacquey 2016). Thus, the core area of the Greater Region is a cross-border region with a strong tradition in (economic) cooperation.

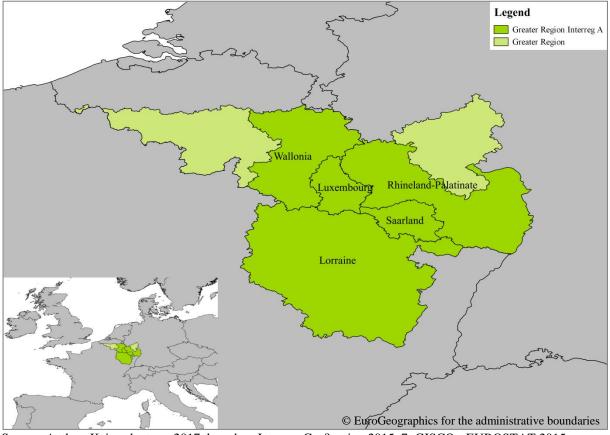


Image 19: Location and territorial shape of the Greater Region and the INTERREG A region

Over the years the cooperation has grown to its current territorial shape because most competences were allocated to the regional ministries that were situated in the regional capitals outside the core cooperation area. In 1995 all regional political executives –including the whole territory of Rhineland-Palatinate and Wallonia - met for the first time and founded the **Summit of the Greater Region**. The Summit's task is to develop political guidelines for the cross-border region (Interview Jacquey 2016). In the 1990's the name 'Großregion'/'Grande Région'/'Greater Region' was officially introduced in the political discourse. The naming, however, was discussed controversially. In 2002 a public participation process was conducted to find a new name without consequences (Wille 2015c, XIV).

As has been stated above, the main focus of this case study is laid on the boundaries of the ETC demarcation. Before 2006, the ETC cooperation area was smaller. Instead of the Greater Region, three smaller cooperation areas were fostered: one between Germany and Luxembourg, another among Wallonia-Lorraine and Luxembourg as well as one among the Saarland and parts of Rhineland-Palatinate and Lorraine (Interview Ripp 2016). In 2006 these three cooperation areas were integrated into one cooperation space on the **recommendation of the European Commission** in order to contribute to an administrative simplification and to be able to generate large scale cooperation projects in science on the level of the Greater Region. However, the integration of these three spaces made the cooperation area more heterogeneous. This can be seen as challenge for the creation of common comprehensive projects. Though still small-scale cross-border projects can be funded (ibid.).

In 2011 the political representatives of the Greater Region decided to establish a **polycentric metropolitan cross-border region (PMCBR)** that shall ensure a strategically balanced development of all subregions based on the specific needs of its territories and citizens. This is considered to be an

Source: Author, Kaiserslautern, 2017, based on Interreg Großregion 2015, 7; GISCO - EUROSTAT 2015

important basis for complementary cooperation (Interview Jacquey 2016). In the *département Moselle*, for instance, the political interest in the PMCBR is very high because of the region's territorial closeness to the Saarland and Luxembourg (Interview Beck 2016).

The current spatial demarcation of the Greater Region is discussed controversially by its citizens and the stakeholders interviewed as the territory as such is very large and in its entirety politically constructed.

To sum up, the establishment of the cross-border region has been initiated from **bottom-up** as it was based on the lived reality in the coal and steel cooperation. However, the cooperation territory was enlarged and the administrative members were increased based on the political will so that in the end the current territory seems to have been defined artificially in **a top-down** approach.

## Cross-border institutions & new types of governance

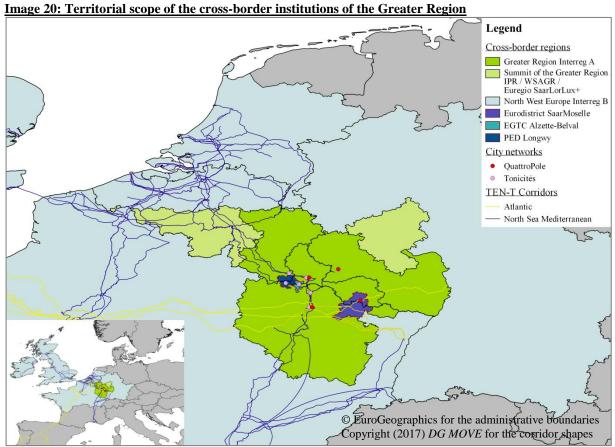
The cooperation within the Greater Region is shaped by a high number of different institutions which comprise the whole territory or parts of it. Every cross-border institution has its own statutes but aims at facilitating the cooperation activities of the Greater Region (Interview Weidenhaupt 2016). Three fundamental bodies define the current political architecture of the Greater Region: the Summit of the Greater Region, the Interregional Parliamentary Council and the Economic and Social Committee of the Greater Region. According to Weidenhaupt, their basic aim is the attraction of new international undertakings and the growth of competitiveness in the Greater Region (ibid.).

The Summit of the Greater Region has existed since 1995 and consists of the regional executives of the regional political levels that are involved in the Greater Region. The Summit develops political aims for the Greater Region such as the reduction of the cross-border effects by investing in concrete projects, among others, in the field of mobility. Every two years the presidency rotates to another region and the future focuses of cooperation are declared. Based on these focuses the working groups define their respective programmes for the coming two years to implement the general aims in concrete projects. The regional politicians are assisted by personal representatives who steer the daily work. Since 2014 the latter are supported by the Secretariat of the Greater Region who is responsible for the administration, communication and coordination of the bodies of the Greater Region with the 15 working groups of the Summit. They aim at implementing the political guidelines of the Summit. Besides that, the Summit is advised by the Interregional Parliamentary Council (IPR) and the Economic and Social Committee (WSAGR). Additionally, three transversal monitoring bodies, the International Labour Market Monitoring Platform (IBA), the network of the statistical offices of the Greater Region and the GIS-GR which develops maps on the situation of the Greater Region, stimulate the Summit. The Summit of the Greater Region is in contact with other cross-border regions and European institutions and cooperates with them (Interview Jacquey 2016).

The **Interregional Parliamentary Council (IPR)** was founded in 1986 as an assembly of the national and regional parliaments of Luxembourg, Lorraine, Rhineland-Palatinate, Saarland and the province of Belgian Luxembourg. The membership was expanded in the beginning of the 1990ies by integrating the parliament of Wallonia and the German and French speaking communities. In the coming years it is expected that the parliament of the whole new French region *Grand Est* will be integrated. The council aims at fostering the relevance of the Greater Region for the economic, cultural and social development. This is to be achieved by strengthening the cross-border cooperation particularly in the fields of competence of the involved regions. The IPR develops advices for the Summit of the Greater Region which are based on the work of different IPR commissions. One commission focuses on transport and communication<sup>46</sup> (Interview Ries 2016).

<sup>&</sup>lt;sup>46</sup> More information on this working group can be found at the end of this section.

The Economic and Social Committee of the Greater Region (WSAGR) was founded in 1997 based on a resolution of the Summit of the Greater Region. The Summit of the Greater Region awards the mandate to the WSAGR. Besides the tasks of the Summit, the WSAGR deals with own current topics of interest. The WSAGR is chaired every two years by another president coming from a different member state and shifting from the employer side to the employees' side – in parallel to the presidencies of the Summit. Each presidency is concluded with a plenary session in which the next president will be voted by the regions. The WSAGR has four working groups in the fields of economy, labour market, transport and health, social affairs & silver economy. The individual focuses are adjusted based on the working programmes of the different presidencies. The biennial working programmes also define the objectives of the working groups. Every year a work report is developed (Interview Weidenhaupt 2016).



Source: Author, Kaiserslautern, 2017, based on GISCO - EUROSTAT 2015; European Commission, DG Move, and TENtec Information System n.y.; Interreg Großregion 2015, 7; GECT Alzette Belval 2017; Eurodistrict SaarMoselle 2011b; Interview Ball 2016; Mission Opérationnelle Transfrontalière 2015b; Interview Sohn 2016.

Besides these three bodies there are further relevant cross-border institutions on subterritories of the Greater Region which are described in the following and depicted in **Image 20**.

The cooperation of the **Eurodistrict SaarMoselle** consists of eight intermunicipal associations from Lorraine and the Saarland that are located around the agglomeration of Saarbrücken (DE) (Verein / Association Zukunft SaarMoselle Avenir 2010). Originally, the cooperation consisted solely of the municipalities Saarbrücken (DE), Forbach and Sarreguemines (FR). After some time, the neighbouring municipalities joined the cooperation. In 2017 more members will join because of the territorial reforms in France (Interview Kiffer 2016). The cooperation was started in 1997 as registered society *Zukunft SaarMoselle Avenir* and converted in 2004 into a *Eurodistrict*. Between 2005 and 2008 a mission statement (*Leitbild*) was developed which defined the main aims of the cooperation. In 2010 an EGTC was established for the *Eurodistrict* (Verein / Association Zukunft SaarMoselle Avenir 2010). The

EGTC acts on behalf of and in the competences of its members. The aim of the body is to strengthen the cross-border cooperation in the cross-border area. It deals with all thematic fields which are relevant across borders such as economic development, tourism, bilingualism and transport. These were laid down in the new cooperation strategy until 2020. The *Eurodistrict* is not strongly involved in the coordination of cross-border transport at the level of the Greater Region and its working groups but focuses on the individual challenges in its smaller cross-border region (Interview Kiffer 2016).

The **Euregio SaarLorLux**+ has existed since several years. In 1988 a working group was established consisting of municipal stakeholders. This working group was transferred into a registered association in 1995. It is based on voluntariness. The cooperation can be complemented by further interested municipalities. The cooperation area comprises the whole Greater Region. However, only the municipalities of the core area of the Greater Region – being delimited as the INTERREG cooperation area - belong to the members of the Euregio SaarLorLux+. The cooperation has two main tasks: First, it represents the municipalities within the regional and national administrations that are involved in the Greater Region as well as the existing cross-border bodies on a political level. Second, it offers a platform for the municipalities to exchange experiences in the different municipal fields of actions. The Euregio is not involved in cross-border cooperation projects but is represented in different bodies of the Greater Region – among others, they participate as an observer in the coordination committee of the Summit of the Greater Region on spatial development (KARE). Hence, they are informed about cross-border projects and can try to influence the focuses of the cooperation (Interview Ball 2016).

The **EGTC Alzette-Belval** was established in 2013 and comprises a small cross-border territory between the south of Luxembourg and the north of Lorraine. The members are a French association of municipalities and four Luxembourgish cities that are located directly at the border. There has been a long tradition of cross-border cooperation. The cooperation area has a common industrial past in coal mining and steel production. After the cease of the coal and steel industry Luxembourg but lived in France. The aim of the cooperation is to increase the cooperation and develop a cross-border urban region with a common identity of its citizens. The cooperation is in close contact with the Summit of the Greater Region although it only concerns a small part of the territory of the Greater Region. The EGTC is financed by its membership fees and benefits from EU funds for an INTERREG project (ABENS! / ABZUM!) during the current funding period (2014-2020). The project aims at improving the everyday life in the cross-border region (Interview Camps 2016).

The **Pôle européen de développement de Longwy (PED)** is an agglomeration at the border triangle between Longwy, Rodange and Athus. In 1985 a cooperation agreement was signed to start a joint industrial revitalisation which links the three border territories. This action programme was financially supported 10 years by the EU. After that it became a cross-border region of the INTERREG initiative for some years. In 1993 the cooperation territory was enlarged to 25 municipalities. They were to cooperate in spatial planning and create a joint development strategy. In 1996 a management structure for the cooperation was created (European Commission and DG Regio 2006).

The **QuattroPole** is a city network that has existed since 2000. It includes the four cities Metz (FR), Luxembourg (LUX), Saarbrücken and Trier (DE). The admission of further members in the long-run is theoretically possible. In the beginning the cooperation consisted of a regular exchange between the four mayors of the cities and some working groups. Since the establishment of a registered society in 2014, to deepen and structure the cooperation, general assembly meetings have been introduced twice a year which reunite the mayors and ten city council members per city. On the general assembly meetings, the cooperation focuses are defined. In 2016 it was focused on the fields of tourism, culture, digital economies, start-ups and mobility. In the field of mobility, it has been focused mainly of the external

accessibility of the cities – the internal connections between the cities have not been defined as a concrete common interest so far. The only exception was the discussion on the development of a circular rail connection between the four cities several years ago. However, this approach was abandoned. As it can only be acted within the fields of competence of the network's members the aim of the network is to represent, lobby and coordinate the interests of its members as well as connect with other stakeholders in these fields across borders (Interview Sohn 2016).

The city-network **Tonicités** consists of the six cities Luxembourg, Arlon, Esch-sur-Alzette, Metz, Thionville and Longwy (ibid.). It was founded in 2006. The cities Metz and Thionville joined the network in 2007 (Ville de Metz n.y.). The cities aim at cooperating in the fields of employment, transport and urban development (EVTZ Gipfelsekretariat der Großregion n.y.). Additionally, the economic, touristic and cultural development of the cities shall be improved by better coordinating the public politics and the regional mobility between the cities. The network defined four working groups which focus on the attractiveness of the network, events, mobility and learning of the Luxembourgish language. The working group on mobility particularly aims at defining challenges and actions to improve rail and road transport, initiating discussions as well as exchanging experiences (Ville de Metz n.y.).

In addition to these regional cooperation structures, there are also some cooperation structures between the national levels of the involved member states:

The German Federal Foreign Office and the French Foreign Ministry have special **commissioners for the bilateral Franco-German cross-border cooperation**. Their task is to coordinate the cooperation in different political subjects between the two countries at national level. Additionally, they participate in coordination meetings between the regional administrative levels. Besides that, twice a year there is a meeting of a so-called Franco-German Council of Ministers. In 2010 a list of common project proposals was adopted to further expand their cooperation in the following years (Federal Foreign Office Germany 2014). Additionally, the German and French national transport ministries cooperate to ensure a sustainable, efficient and environmentally friendly transport development between the two countries. Bilateral cooperation projects are to be fostered. The cooperation focuses, among others, on rail transport, alternative modes of transport as well as road transport and shall support the implementation of the high-speed rail line between Paris, Eastern France and South-West Germany (POS). The ministries frequently exchange staff (Bundesministerium für Verkehr und digitale Infrastruktur 2017).

Between France and Luxembourg, a *Commission intergouvernementale franco-luxembourgeoise* was established in 2010. It aims at increasing the cross-border cooperation between the two countries. More in detail, the exchanges between the stakeholders involved in cross-border cooperation are to be supported to find solutions for experienced challenges in the daily life of the local border residents. The commission develops advices and recommendations in different fields of actions, among others, transport and spatial planning. The commission meets at least once a year (Mission Opérationnelle Transfrontalière n.y.b).

As was stated above, in 1971 an **intergovernmental commission** between **France, Luxembourg** and **Germany** was established. It represented four French *départements*, the Saarland, Rhineland-Palatinate, two of its subregions and the *Kreis* Birkenfeld as well as Luxembourg. It focused on cross-border cooperation in different fields such as economy, spatial planning and transport. It developed advices and prepared transnational agreements when needed. With the accession of Belgian and further French entities in 2005 it was integrated into the Summit of the Greater Region (Mission Opérationnelle Transfrontalière n.y.a).

Between Belgium and France there is no intergovernmental commission but between 2005 and 2007 a parliamentary working group (*groupe de travail parlementaire franco-belge*) was in place. After the establishement of an EGTC, the exchange in this group was stopped. There are several regional and

subregional cross-border governance structures, however, none of them directly concerns the cooperation between Lorraine and Wallonia (Mission Opérationnelle Transfrontalière n.y.c). Also between Germany and Belgium, as well as between Belgium and Luxembourg there are no comparable cooperations at national level.

The high number of cross-border bodies and their formal structures shows a **high degree of institutionalization** of cross-border cooperation in the Greater Region. Some bilateral relations between the countries are more pronounced and formalised than others.

Besides the above described cooperations, the Greater Region is located in the INTERREG B transnational cooperation area **North-West Europe** which offers the possibility for further cross-border cooperation. The territory, however, is not included in a European macro-regional strategy.

As already mentioned in **chapter 5**, the Greater Region is crossed by the TEN-T **North Sea Mediterranean** and **Atlantic core network corridors**. The two corridors offer a further occasion for cross-border cooperation: the corridor forum. The forums are open for stakeholders from countries that are crossed by the TEN-T corridors and shall be used for consultation purposes (European Commission and DG Move 2017b).

The influence of the INTERREG B cooperation area and the TEN-T corridors on the cross-border region will be analysed in the course of this case study.

# Structural Analysis

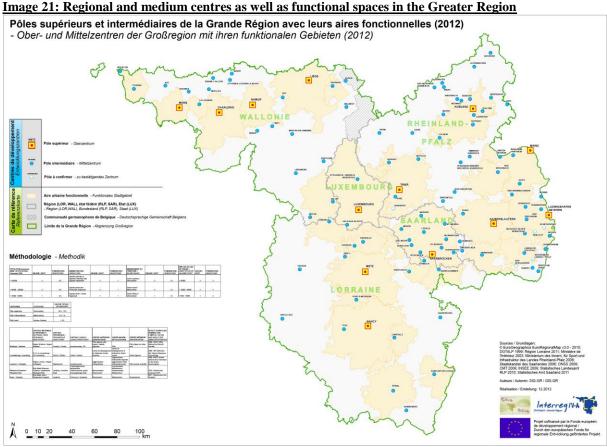
The statistical data refers to the boundaries of the Summit of the Greater Region. Data for the INTERREG boundaries was not available. The German Speaking Community territory is part of the Walloon territory. Therefore, the community's data will not be presented individually.

## Territorial structure

The Greater Region comprises a total territory of 65,400 km<sup>2</sup>. The highest proportion of the territory belongs to Lorraine (36%) followed by Rhineland-Palatinate (30%) and Wallonia (26%). The two residual territories from the Saarland and Luxembourg are much smaller (both 4% of the territory) (Wirtschafts- und Sozialausschuss der Großregion (WSAGR) 2016, 9).

The Greater Region is a **polycentric** cross-border region as its territory and settlement structure comprises several central cities and several cross-border functional urban areas (see **Image 21**) (Université du Luxembourg 2010, 65f.). Besides that, the cross-border region aims at establishing a Polycentric Metropolitan Cross-border Region (PMCBR) by increasing the integration of the regions and improving the internal transport infrastructure (Interview Chlench 2016).

The **population density** of the cross-border region amounts to 176 inhabitants per km<sup>2</sup>. The population density of the subregions and within the subregions differs. Overall the Saarland is populated the densest (385 inhabitants/km<sup>2</sup>). Lorraine has the lowest density (100 inhabitants/km<sup>2</sup>). When looking at the strong internal differences, it can be seen that the territories on the Eastern fringes of the cross-border region, in Rhineland-Palatinate along the Rhine river as well in the north of Wallonia – in Charleroi and Liège - are very dense. At the same time in the Greater Region's geographical centre, which comprises the border areas of all subregions, another high population density can be found because of several important economic centres and cities of the subregions. Outside this area, the Greater Region is rather sparsely populated and has a rural character (Interregionale Arbeitsmarktbeobachtungsstelle 2016a, 9).



Source: GIS-GR 2012

As the Greater Region consists of more than two countries, several borders – some of them defined by **natural barriers** - separate the different national parts of the cross-border region (see **Image 22**). As can be seen only some borders are separated by rivers but not all way long. Only rivers longer than ten kilometres were depicted. Rhineland-Palatinate is separated by the border rivers Our, Sauer and Mosel from Luxembourg. Additionally, the Saarland is separated from Luxembourg by the Mosel river. Wallonia is partially separated from Rhineland-Palatinate by the river Our. A short part of the Blies divides Saarland and Lorraine. Luxembourg and Lorraine are divided for a short track by the river Gander. Luxembourg and Wallonia are separated by the river Sauer.

Additionally, there are some **twin-cities** or villages –even some at the meeting of three borders and onesided hubs which are located close to the national borders. Examples are Perl (DE), Apach (FR) and Schengen (Lux), Wasserbillig (LUX) and Oberbillig (DE), Longwy (FR) – Aubange (BE) – Rodange (LUX); Großrosseln (DE) – Petite Roselle (FR); Esch-sur-Alzette (LUX) and the French villages Audun-le-Tiche, Russange and Rédange; Saarbrücken (DE) - Stiring Wendel (FR) just to name a few.

The four countries belonging to the Greater Region were among the five countries which first signed the **Schengen** Agreement. All internal border controls of the cross-border region were abolished in 1995 (2015a, 14).

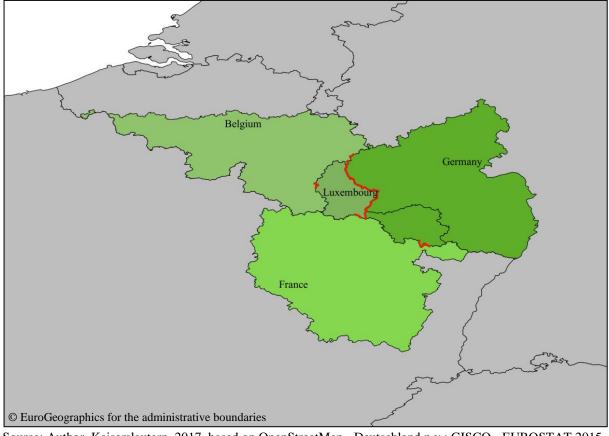


Image 22: Natural barriers in the Greater Region: border rivers (in red)

Source: Author, Kaiserslautern, 2017, based on OpenStreetMap - Deutschland n.y.; GISCO - EUROSTAT 2015.

#### Demographic situation

In 2015 almost 11.5 million **inhabitants** lived in the Greater Region. Most inhabitants lived in Rhineland-Palatinate (4 million) and Wallonia (3.6 million), least in the Saarland (1 million) and Luxembourg (560.000). The number of inhabitants of the Greater Region has been growing constantly since 1970 (+8%) mainly because of a high immigration rate and is expected to further do so. The strongest growth has taken place in Luxembourg with the lowest number of inhabitants (+66%). Wallonia (+13%) and Rhineland-Palatinate (9%) have also been growing, whereas the inhabitant numbers have stagnated in Lorraine and have been shrinking in the Saarland (-12%) (Interregionale Arbeitsmarktbeobachtungsstelle 2016a, 1f.,13,15,25). There are also population development differences within the subregions. Urban and economically strong parts as well as territories next to important transport axes have been growing, whereas the numbers of inhabitants have been decreasing in rural, economically underdeveloped and peripheral parts. However, this does not apply to Luxembourg as large parts have been growing. This is because of the high economic attractiveness of the country and the related high demand of labour force. Because of increasing living costs in Luxembourg the number of inhabitants has also been growing in the country's direct border areas (ibid., 12f.).

The **natural population change** within the Greater Region has been negative since 2002: 72 persons per 10.000 inhabitants died which could not be compensated by newly born children. Between 2013 and 2014, however, the deficit degree has been minimized: only 19 people per 10.000 inhabitants died which could not be compensated. At the same time the number of older citizens has been growing relative to the number of younger citizens (ibid., 19).

The analysis of the demographic situation shows that there are strong development differences between the subregions of the Greater Region.

# Economic situation

The **GDP** of the Greater Region amounts to 371,745 million  $\in$  with a GDP per capita of 32,317  $\in$  in 2015. However, the shares of the five regions are different. The highest share of the GDP is produced by Rhineland-Palatinate (36%), followed by Wallonia (25%), Lorraine and Luxembourg (16% respectively 14%). The Saarland contributes only 9% to the GDP of the Greater Region. When looking at the GDP per capita the picture is different. Luxembourg produces the highest GDP rate with 90,977  $\in$  per capita. The rate in the Saarland and Rhineland-Palatinate is much lower (35,498  $\in$  respectively 32,968  $\in$ ) and Wallonia's as well as Lorraine's production amounts only to 26,347  $\in$  and 24,929  $\in$  (EUROSTAT n.y.a, n.y.b, n.y.d). Thus, the economic situation between the countries is different.

In relation to the demographic change the number of citizens in the main **employable age** (between 20 65 years) in the Greater Region is decreasing and will do so in the future with regional differences (Interregionale Arbeitsmarktbeobachtungsstelle 2016a, 2). Luxembourg has the highest degree of inhabitants between 20 and 65 years in the Greater Region. Additionally, the municipalities which border Luxembourg have a high share of this group. These have a growing tendency. Luxembourg is the sole country whose population in the employable age is expected to strongly grow further in the future (ibid., 21,23,30f.).

In the year 2015, 70% of the employable citizens of the Greater Region were employed in their place of residence. 8% were unemployed. The degree of **unemployment** rate differs between the regions. In Lorraine even 12% did not have a job, whereas the lowest unemployment rate was found in Rhineland-Palatinate with 4%. The degree of unemployment of the young (below 24 years) in the Greater Region is much higher (18%). In Wallonia and Lorraine 32% respectively 29% of the young were unemployed. This is even above the EU average. In Luxembourg 17% were unemployed, the two German regions have a youth unemployment below 8%. Thus, the employment situations vary strongly between the regions (ibid., 3f.).

In 2013, the average **available household income**<sup>47</sup> per inhabitant varied strongly within the subregions. Luxembourgish employees had a much higher average income of 32,073 per capita. The income of Rhineland-Palatinate employees was also above the Greater Regional average with 21,397. The income in Saarland is similar to the average (19,591€), however, the income levels of Lorraine and Wallonia are below the average with 17,875 and 17,039. These amounts are even 1,000 below the two region's national average income (Wirtschafts- und Sozialausschuss der Großregion (WSAGR) 2016, 67).

As has been stated above, there is a high number of **cross-border commuters** within the Greater Region, i.e. these are employed in another region than their place of residence. The number of the cross-border commuters is growing since the 1980ies and started in the 1970ies (Interregionale Arbeitsmarktbeobachtungsstelle 2016b, 11). Reasons for the commuting within the Greater Region are the above described varying economic situations and labour market developments of the countries. Additionally, the height of the incomes, the demand for special job sectors and the living expenses are different (Wille 2012, 216ff.). In 2015 219,000 cross-border commuters were counted. The highest mobility relation can be found between France and Luxembourg. More than half of the cross-border commuters came from France. The numbers are still growing. 76% of all commuters in the Greater Region worked in Luxembourg. Despite still high numbers of commuters from Wallonia to Luxembourg, the degree has decreased in the last two years. The number of citizens living in France and working in the two German regions have also decreased since 2005. These missing commuters probably have been attracted instead by Luxembourg (Interregionale Arbeitsmarktbeobachtungsstelle 2016a, 5f., 2016b, 12, 2016b, 15). Additionally, 14% of the cross-border commuters in 2015 worked in

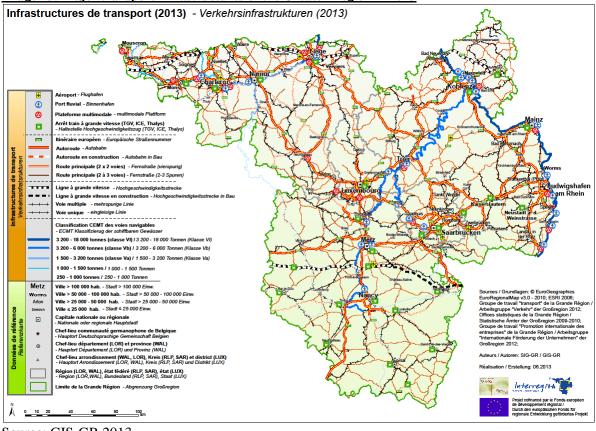
<sup>&</sup>lt;sup>47</sup> The 'available household income' describes the available money after the substraction of taxes and social insurance contributions and further transactions (Wirtschafts- und Sozialausschuss der Großregion (WSAGR) 2016, 71).

Wallonia (Interregionale Arbeitsmarktbeobachtungsstelle 2016b, 12). In 2015 more commuters went to Luxembourg and Saarland than left these two countries. In the other three regions the proportion is negative, i.e. less cross-border commuters came to the regions than worked outside (ibid., 13). Besides the usual cross-border commuters there is another group of commuters described to be **'atypical'**. This means that they moved their original place of residence to another subregion of the Greater Region but still commute to the original region to work there (ibid., 9). For the atypical cross-border commuters Lorraine is a popular place to live whereas Luxembourg and Saarland as well as Belgium are attractive places to work. In the 1990ies many atypical cross-border commuters existed between France and Germany, in the last years, most of them commuted in the border areas around Luxembourg. In 2015 19% of the cross-border commuters from France to Rhineland-Palatinate were of atypical nature, and even 33% of the commuters to the Saarland were atypical. The percentage of atypical cross-border commuters to Luxembourg is quite low (3%). However, this number has increased strongly in the last 20 years (ibid., 18).

Besides the job commuters, further cross-border mobility flows can be observed in the Greater Region because of everyday practices that are conducted outside the place of residence such as shopping, recreation, participation in cultural events and meeting with acquaintances. Shopping practices take place, among others, because of regional differences in the pricing and tax structure as well as a different offer (Wille 2015a, 136,139ff.).

#### Status quo of the cross-border transport system

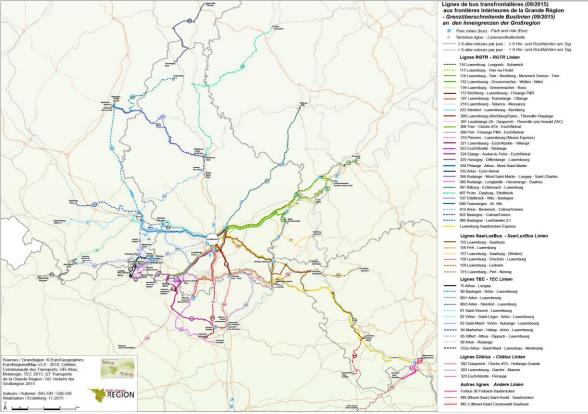
As has been stated above the Greater Region is characterized by strong cross-border flows – the strongest within the EU (Interview Jacquey 2016). **Image 23** depicts the larger transport infrastructures which have existed or were established in the Greater Region in 2013.



#### Image 23: Major transport infrastructures of the Greater Region in 2013

Source: GIS-GR 2013.

Besides that, an analysis of the existing public transport services across borders in bus and rail transport was conducted in 2015 (see **Image 24** and **Image 25**) by a cooperation of the GIS-GR and the working group 'transport' of the Summit of the Greater Region. The cross-border bus connections are to complement the rail connections by accessing the most important places of residence of the cross-border commuters without train station in a close vicinity to the border. The travel time is said to be comparable to a journey with individual car as it is using the same infrastructure. In the peak hours many bus lines offer very frequent connections (Ministère du Développement durable et des Infrastructures de Luxembourg 2016, 13).





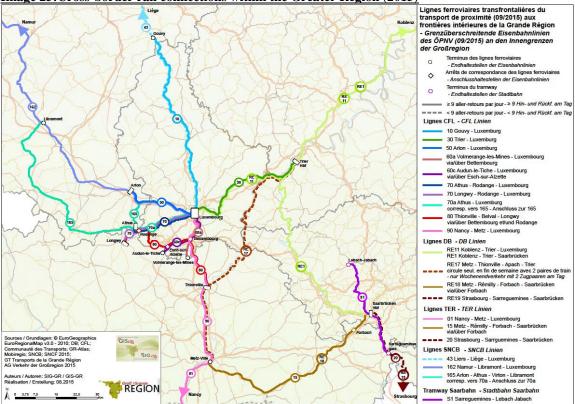
Source: GIS-GR 2015b.

Most of the 53 **cross-border bus** connections, offered in 2015, started or ended in Luxembourg – the country were most cross-border commuters work. Besides that, three bus lines connect the Saarland and Lorraine; and two connect Wallonia and France. The buses are provided under different responsibilities (Ministère du Développement durable et des Infrastructures de Luxembourg 2016, 13). The RGTR lines are provided by Luxembourg, Citélux by Lorraine, the TEC buses are provided by Wallonia and the SaarLuxBus connections are provided in a cooperation of the RGTR, a private bus company of the Saarland and the Saar-Pfalz-Bus, a subsidiary company of the German DB Regio AG comprising the Saarland and Western Palatinate (*Westpfalz*). Forbus is provided by the French agglomeration Forbach. The MS buses are offered in a cooperation of bus companies from the Saarland and France (Verkehrsmanagement-Gesellschaft Saar mbH 2013, 2008)

More information on the cross-border bus lines is provided in **chapter 6.3.5** as these are seen as cross-border initiatives when offered in cross-border cooperation.

22 **cross-border rail** connections were offered within the Greater Region in 2015 by five different transport providers – four regional respectively national companies and one local provider from Saarbrücken. Most of them connect Luxembourg with the surrounding countries. Besides that, six

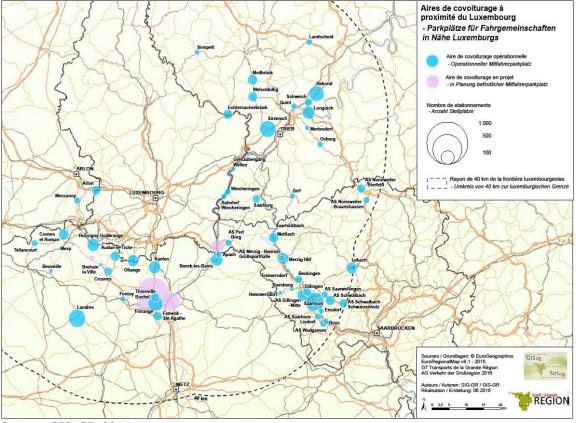
connections existed between France and Germany. However, no regional train connections were offered between Lorraine and Wallonia in 2015.



#### Image 25:Cross-border rail connections within the Greater Region (2015)

# Source: GIS-GR 2015c.

Image 26: Car sharing parking spaces in the Greater Region close to Luxembourg



Source: GIS-GR 2015a.

Because of the strong motorized individual commuter flows to Luxembourg, a map on car sharing parking spaces was created on which commuters can meet and switch from several cars to one to reduce congestions and pollution (see **Image 26**). The blue bubbles show existing infrastructures, the bubbles in light violet are planned or currently being established. As these infrastructures have been established to react on the needs, it can be seen where the strongest car based transport flows to Luxembourg come together.



Image 27: Impressions of cross-border transport in the Greater Region

**Image explanation** from top left to bottom right: Athus (BE): Container Terminal – Schengen (LUX): Mosel bridge between Germany and Luxembourg – Saarbrücken (DE): regional train to Forbach (FR) – Athus (BE): change of Belgian and Luxemburgish trains – Luxembourg: motorway congestion in the morning – Saarbrücken (DE): height difference between French train and German platform – Esch-sur-Alzette (LUX): pedestrian bridge between Luxemburgish train station and France – Road signs: between the French-Belgian and Luxemburgish border.

Source: Author, Kaiserslauterm, 2007.

In an analysis of the cross-border transport flows from **Lorraine to Luxembourg** of 2008 it was found out that most flows to Luxembourg were concentrated on the French motorway A31 in the *sillon lorrain* which therefore was strongly congested in the peak hours together with the roads in Luxembourg. Thus, the commuting was very time intensive. It was concluded that the motorway needs to be expanded and the rail offer to be improved to make it more attractive. Additionally, car sharing is said to need to be promoted (Ministère des Transports de Luxembourg et al. 2008, 17ff.,28).

Also in the analysis for the commuter flows between **Wallonia and Luxembourg**, published in 2015, the roads to Luxembourg were strongly congested in the peak hours, particularly the motorway A6 in the south of Luxembourg. In addition, several public transport connections (buses and trains) were overcrowded. The buses were also stuck in the congestions and the offer criticized not to be transparent.

As the train connections within Luxembourg are more developed than in some Belgian villages several commuters drive to Luxembourg and switch to the train after crossing the border. Therefore, the Luxembourgish train station's parking spaces are said to be congested. Some places in Wallonia are not accessible with public transport. Also here, car sharing parking spaces are to be promoted (Ministère du Développement durable et des Infrastructures de Luxembourg and SERVICE PUBLIC DE WALLONIE 2015, 5f.,25,29).

The analysis on the cross-border transport between the two **German regions and Luxembourg** of 2016 evaluates the different public transport tariffing standards to be a challenge for transition tariffs across the border. The cheap public Luxembourgish transport tickets compared to the German prices lead to the usage of individual cars to the Luxembourgish border where the commuters change to public transport. The ticket offer is very complex. The information availability for cross-border commuters from Rhineland-Palatinate and Saarland on mobility in the Greater Region is said to be incomplete (Ministère du Développement durable et des Infrastructures de Luxembourg, Ministerium für Wirtschaft, Arbeit, Energie und Verkehr Saarland, and Ministerium des Innern und für Sport Rheinland-Pfalz 2016, 23f.,29).

For the other cross-border transport relations no studies were available. However, as the case study methodology includes interviews with stakeholders, from the different administrative levels from the member states involved in the Greater Region as well as stakeholders from cross-border institutions, the interviewed stakeholders' opinions on the status quo of the cross-border transport system of the Greater Region are presented in the following to complement the description of the status quo.

The opinions are grouped according to the interviewed stakeholders' job location (country). The opinions of stakeholders working in cross-border institutions are grouped in an additional category. Thereby differences in the perceptions of the member states shall be detected.

## <u>Wallonia</u>

The two provinces relate to two different borders. For the province of Liège, cross-border transport to Luxembourg and to Rhineland-Palatinate (Bitburg-Prüm) is said to be relevant (Interview Antoine 2016). The province of Luxembourg focuses on the connections to Luxembourg (Interview Demortier 2016).

The opinions on the quality of the cross-border transport infrastructure vary and depend on the transport mode. The cross-border road transport infrastructure between Belgium and Luxembourg respectively Rhineland-Palatinate is considered to be in a good shape (Interview Antoine 2016; Interview Castagne 2016). However, there are congestions in the border area to Luxembourg because of strong commuter flows (Interview Castagne 2016). Also the German Speaking Community (GSC) records strong individual transport flows to Luxembourg (Interview Hilligsmann 2016).

The rail infrastructure is said to challenge a smooth transport across borders because of a missing interoperability of the national rail systems in terms of technologies (Interview Antoine 2016) and different electricity standards (Interview Hilligsmann 2016). Therefore Demortier considers the rail transport infrastructure not to be coherent at the borders (Interview Demortier 2016). The TEN-T EuroCapRail project which shall improve the rail infrastructure between Bruxelles, Luxembourg and Strasbourg is in the implementation process but was delayed. The connection is said to need to become more attractive (Interview Castagne 2016). There are many commuters from St. Vith and Burg-Reuland (BE) (province of Liège) which take the train from Gouvy or Vielsam (BE) to Luxembourg (LUX). However, the passenger rail transport between Liège and Luxembourg has been challenged because of the travel costs. So far no solution has been developed (Interview Antoine 2016).

The Luxembourgish transport provider CVL is said to offer buses between St.Vith and Luxembourg and undertakes the tasks of the Belgian transport provider TEC Liége-Verviers<sup>48</sup> (ibid.). However, crossborder bus transport is not offered comprehensively on the whole territory because of sparse financial means. Therefore only few cities are accessed by the buses (Interview Castagne 2016). Particularly in the Belgian south, i.e. the province of Luxembourg it is difficult to provide a comprehensive bus offer because it has a rural settlement structure. Instead car-pooling has been promoted but has not proved to be self-evident (ibid.). Demortier acknowledges that the province of Luxembourg struggles with an outdated public transport system which does not fit to the needs of the province anymore. Therefore the public transport from the province of Luxembourg (BE) to Luxembourg (LUX) is not said to be in a good shape (Interview Demortier 2016). The southern part of the GSC also has a rather rural structure. St. Vith (BE) does not have a rail station. Therefore, the citizens of the GSC had to use other transport means to access a rail station in Verviers or Gouvy (BE) to cross the border via train. As this is often considered to be inconvenient most commuters from the GSC use their own car to access Luxembourg (LUX) instead (Interview Hilligsmann 2016).

It is criticized that public transport and ticketing are not coordinated sufficiently across borders between the regional and national administrative levels of the Greater Region (Interview Antoine 2016).

#### Lorraine/Grand-Est

The interviewed stakeholders mainly referred to cross-border transport to Luxembourg. However, some also addressed the cross-border transport from Lorraine to Saarland, and the connections between Wallonia, Rhineland-Palatinate and Luxembourg.

France is said to have a strong interest in cross-border transport because there are 60,000 cross-border commuters which commute to Luxembourg every working day. Therefore a cooperation in the Greater Region but also bilaterally with Luxembourg takes place (Interview Hilt 2016; 2017). The development of common aims, taking decisions and the solution of concrete challenges is said to be easier in a bilateral cooperation (ibid.). In the north of the *département* Meurthe-et-Moselle there are strong commuter flows to Luxembourg. Therefore, the transport is strongly influenced by Luxembourg. It is expected that the commuter flows will further increase strongly in the next years. Thus, the *département* Meurthe-et-Moselle sees a high importance in improving the transport to Luxembourg (Interview Arts 2016).

Overall the cross-border transport network of the Greater Region is considered to be in a good condition compared to the Rhine region. Still, the motorway A31 between Metz and Luxembourg is said to need to be expanded because of many cross-border commuters and congestions (Interview Hilt 2016; 2017; Interview Bost 2016; Interview Straehli 2016). The latter are said to exist in the morning and evening of work days because of high individual commuter flows – mainly by car - to and from Luxembourg combined with bottlenecks (Interview Arts 2016). Besides the congestions between Nancy (FR) and Luxembourg, road challenges are also said to exist between Belgium and Luxembourg and Luxembourg and Trier (DE): These led to environmental pollution. It is estimated if every commuter would transport another person in its car the congestions would be gone (Interview Beck 2016). In this context carpooling should be promoted more to reduce the individual transport flows of those which cannot use public transport connections across borders (Interview Arts 2016). Besides that, it is proposed to expand the waterways and modernize the ports, particularly on the Mosel river, to shift more freight transport from the roads to the waterways and disburden the formers (Interview Bost 2016).

Additionally, the trains to Luxembourg are said to be overcrowded in peak hours. More train connections or larger trains need to be offered (Interview Hilt 2016; 2017). However, the rail transport has been

<sup>&</sup>lt;sup>48</sup> The TEC Liège-Verviers has a certain autonomy in Wallonie, a political representative of the TEC is involved in the Walloon public administration of the bus transport. However, the Walloon region is responsible for bus transport in Wallonia.

improved in the last months and new developments are planned in the next years (Interview Bost 2016). Additionally, improvements in park and ride systems are said to need to be made in the cross-border transport of France in the future (ibid.). Besides that, it is said that the ticketing systems for cross-border public transport across border need to be coordinated better within the Greater Region (Interview Beck 2016).

Also transport challenges are said to exist in the connections between France and Germany (Interview Straehli 2016). Difficulties were experienced in the decision about the tariffs and the distribution of costs (Interview Hilt 2016; 2017).

#### **Luxembourg**

Luxembourg is seen as the 'magnet' of the Greater Region as there are many commuters which come to Luxembourg every day (Interview Dostert 2016). Therefore, the interviewed stakeholders addressed cross-border transport linkages to all border regions.

As stated above, the Luxembourgish transport system is challenged by strong and further growing commuter flows from the residual regions of the Greater Region which enter the country every day, most of them with the destination Luxembourg City where most jobs are located. The motorways are congested and overloaded because they were not dimensioned for these strong transport flows (Interview Vidal 2016; Interview Besch and T. Juttel 2016; Interview Dostert 2016). According to Dostert, however, it does not make sense to expand the road infrastructure because it will contribute to the further growth of traffic flows and this will end up in a bottleneck at one point. Instead public services should be expanded (Interview Dostert 2016)

The public transport offer is described to be in a better development status in and around the country Luxembourg and the direct border area than in the outer parts of the Greater Region - frequent connections are offered (Interview Kies 2016). Because of the busy service connections across borders they are frequently expanded (Interview Kies 2016; Interview Vidal 2016). A strong coordination with the neighbouring regions was necessary to maintain the highly frequented cross-border public transport services (Interview Besch and T. Juttel 2016). Luxembourg has direct rail connections to all neighbouring countries and offers several strongly frequented bus connections to France, to several destinations within Germany and some to Belgium. Still, many public rail and bus connections are overloaded in the peak hours and thus, not particularly attractive. The railways between France and Luxembourg are congested particularly because of an attractive travel time and stronger road congestions to Luxembourg than in the residual border regions of Luxembourg. Thus, the transport challenges are said to vary a little in the different neighbouring regions of Luxembourg (ibid.). Because of this strong overload the rail infrastructure to France – particularly between Bettembourg (LUX) and Thionville (FR) is still said to need to be expanded because capacities are lacking for freight transport particularly in the peak hours of passenger rail transport. Additionally, the rail connections to Belgium are to be expanded (Interview Bissen 2016). Also, the rail bridge in Konz (DE) is said to strongly slow down the connections between Luxembourg and Germany, as it can only be crossed with 40km/h, and makes the rail transport not attractive compared to the road. Therefore also development potential is seen in the public transport infrastructure to Germany (ibid.).

In general, however, although the public transport offer as well as transport infrastructures are expanded and considered to be in a good shape, the congestions remain because of the ongoing growing numbers of commuters (Interview Besch and T. Juttel 2016; Interview Vidal 2016; Interview Dostert 2016). Several cross-border tickets are available for the cross-border commuters to Luxembourg (Interview Vidal 2016). In France some of those tickets are also valid for longer distances across the border (Interview Kies 2016). In general the public transport prices are said to be cheap (Interview Vidal 2016). However, it remains complicated to agree on cross-border rail tariffs of rail connections. As bus lines

are very flexible they can be easily allocated to the necessary cross-border routes (Interview Kies 2016). An information platform which provides linked schedules of all public transport connections within the Greater Region is to be established (Interview Vidal 2016).

As the country Luxembourg is very rural, the inhabitants are strongly accustomed to rely on their individual cars. This is a challenge for the transport within Luxembourg. Therefore, more transport flows should be shifted to public transport or its alternatives as soon as they are accessible (Interview Dostert 2016). In this context Luxembourg works on the creation of an app for car-pooling to reduce the individual transport flows of the cross-border commuters to Luxembourg as alternative to public transport (Interview Arts 2016). Furthermore, Luxembourg sees strong needs to invest in the expansion of bicycle and pedestrian mobility within its boundaries which is also considered to be relevant for the cross-border commuters Vidal 2016; Interview Dostert 2016).

#### <u>Saarland</u>

The interviewed stakeholders from Saarland named transport challenges at different borders of the Greater Region. Mostly named were the connections to Luxembourg because of strong commuter flows, but also the connections to France were evaluated. Besides that, challenges in cross-border transport between Lorraine and Luxembourg and in the freight transport through the Greater Region in a north-south direction were named.

Because of a strong cross-border commuter transport to Luxembourg transport infrastructure challenges are said to exist (Interview Chlench 2016; Interview Ludwig 2016; Interview Glöckner 2016). Particularly in the vicinity of Merzig the roads are often congested. Therefore, transport nodes are upgraded and the A8 close to Perl – Wellingen – Merzig will be expanded to four tracks on both sides of the borders. However, this is the only strongly congested road to Luxembourg to be expanded (Interview Glöckner 2016; Interview Chlench 2016). Besides that, the regional road L273 from Saarbrücken is to be prolonged to Forbach (FR). The existing roads are to be connected across borders (Interview Glöckner 2016). In general, the road infrastructure in the Greater Region is considered to be in a much better status compared to the new EU member states (ibid.). Further carpooling parking spaces are to be expanded (ibid.). The French motorway A31 that leads to Luxembourg is strongly congested because of the cross-border commuters (Interview Ripp 2016). Additionally, the high-speed rail connection between Bruxelles (BE), Luxembourg (LUX) and Strasbourg (FR) still needs to be expanded particularly in terms of freight transport. Also, the north-south road connections need to be upgraded. Because of a low north-south travel speed, many freight companies are said to avoid the transport of their goods through the Greater Region which contradicts the aim of the Greater Region to become an important logistical hub (ibid.).

There is no direct rail connection to Luxembourg but a direct bus connection provided by the CVL. A direct train would be desirable but is not realistic because of topographic and financial reasons (Interview Ludwig 2016; Interview Chlench 2016; Interview Ripp 2016). The public transport connections between Metz and Luxembourg as well as Trier and Luxembourg are considered to be more attractive (Interview Ripp 2016).

In the cross-border public transport to France there is a good working connection from Saarbrücken to Lorraine via rail which runs every hour. However, since several years the direct connections have been reduced and most connections require changing trains in Forbach (FR). The reason is the limited rolling material which is able to run on the rail systems of France and Germany. The material is currently too limited to be able to run on the whole track between Saarbrücken and Metz (Interview Ludwig 2016). Therefore it is much faster and more attractive to take the car (Interview Ripp 2016). Additionally, a good and frequent public transport connection from Saarbrücken (DE) to Forbach (FR) is said to be missing (Interview Chlench 2016).

As many citizens of the Saarland and the Greater Region live in rural areas, they are not connected very well to the public transport system. This leads to strong commuter car flows to the larger cities and places of work (Interview Ripp 2016). A developed information platform (Mobiregio) is said to have facilitated the mobility across borders as it provides travel itineraries for public transport journeys within the Greater Region (ibid.).

## Rhineland-Palatinate

The opinions of the interviewed stakeholders from Rhineland-Palatinate towards the status quo of the cross-border transport system differ.

There is a high number of cross-border commuters from the region Trier to Luxembourg that is constantly increasing. Approximately one third of the inhabitants of the region Trier work in Luxembourg. Therefore the transport system between Rhineland-Palatinate and Luxembourg is said to be congested (Interview Planungsgemeinschaft Region Trier 2016). Also the cross-border transport to France is considered to be relevant as some commuters from France work in the Designer Outlet in Zweibrücken (DE) (Interview Clev and H. J. Fette 2016).

In general, Harmeling considers the cross-border transport system within the Greater Region to be in a good shape (Interview Harmeling 2016). This is acknowledged by Fette and Clev (Interview Clev and H. J. Fette 2016). However, as most commuter flows between Trier (DE) and Luxembourg (LUX) rely on the congested road network the public transport connections needs to become more attractive for the cross-border commuters but also at the weekend (Interview Harmeling 2016; Interview Schelkmann 2016; Interview Planungsgemeinschaft Region Trier 2016). Also some infrastructures are said to need to be expanded (Interview Planungsgemeinschaft Region Trier 2016). Schreiner considers the main road infrastructure to be in a good shape (Interview Schreiner 2016). Furthermore, the long distance *POS*-*Nord* rail connection between Baudrecourt and Mannheim is said to need to be enhanced in terms of speed (Interview Clev and H. J. Fette 2016; Interview Trinemeier 2016).

The cross-border rail transport from France and Luxembourg to Germany is considered to be challenged because of different technical electricity as well as safety standards. In order to cross the border the rolling material needs to be equipped for two systems (Interview Heilmann 2016; Interview Geyer 2016). This material, however, is very expensive. It is not expected that this challenge in relation to the electricity systems will be solved in the near future (Interview Geyer 2016). Schreiner sees a need of investments in the often very old transport rail infrastructures for the long distance transport but also the regional public transport (Interview Schreiner 2016).

Rhineland-Palatinate and Luxembourg are said to jointly try to shift more commuter flows to public transport (Interview Harmeling 2016). So far, approximately 1,000 commuters use the train from Trier to Luxembourg on a regular workday. These numbers should be increased (Interview Geyer 2016). Most commuters go to Luxembourg to work there but there are also transport flows from Luxembourg to Germany for shopping reasons (Interview Harmeling 2016). Whereas Geyer considers the coordination of rail transport between Germany and Luxembourg to be very efficient, Schelkmann considers the rail connections from Rhineland-Palatinate to Luxembourg to be insufficient and not adapted to the strong commuter flows. She hopes that the activation of the Western track (*Weststrecke*) in the vicinity of Trier (DE) will improve the connections of Rhineland-Palatinate to Luxembourg (Interview Schelkmann 2016).

A reluctance from the French side is said to have hampered the development of a good and direct rail connection between Trier (DE), Thionville and Metz (FR) (Interview Geyer 2016). Also the connection between Saarbrücken (DE) and Metz (FR) is considered not to be satisfactory because the number of direct trains was reduced (Interview Schreiner 2016).

The rail transport between Luxembourg and Germany is said to be facilitated by several attractive ticketing systems for commuters like the *M-Pass* which can be upgraded to be valid also on the German side of the border until Wittlich (DE). The prices are scaled based on the distance from the Luxembourgish border. Additionally, there are touristic ticket offers between Koblenz (DE) and Luxembourg which include all transport modes in Luxembourg; the *Rheinland-Pfalz-Ticket+Lux* which includes all trains within Rhineland-Palatinate and Luxembourg; and the SaarLorLux ticket which is only valid at the weekend (Interview Geyer 2016). Besides that, differences in the bus tariff systems are said to have hampered a further coordination with Luxembourg. The Luxembourg in the regions which are in strong demand. However, not a comprehensive bus accessibility is ensured because of missing steering competences of the German administrations in international connections (ibid.). Schelkmann, however, considers the bus connections to be in a good shape (Interview Schelkmann 2016). In general, the possibility of purchasing cross-border tickets is said to be challenged in some relations because the different transport providers were not obliged to connect their tariff structures across borders (Interview Schreiner 2016).

There are no cross-border rail connections between Zweibrücken respectively Pirmasens (DE) and Bitche (FR) as there are no strong commuter linkages between the cities and thus no demand. The only demand exists in the connection of commercial areas which are difficult to access via train. At the weekend there was a connection between Dahn (DE) and Wissembourg (FR) in the past. However, it was not in demand and therefore cancelled again (Interview Heilmann 2016).

A general challenge is said to be the strong orientation of the transport development within the Greater Region to the different national transport systems (Interview Schreiner 2016). The spatial planning of Rhineland-Palatinate should start taking into account the neighbouring territories and consider the development across the borders more (Interview Schelkmann 2016).

#### Cross-border cooperations

The stakeholders from the cross-border institutions related to most parts of the Greater Region. Most frequently named was cross-border transport to Luxembourg.

According to Ball and Ries, the cross-border transport is in a rather good status – the public transport offer was strongly improved in the last 20 years (Interview Ball 2016; Interview Ries 2016). For instance the train connections between Nancy, Metz, Thionville (FR) and Luxembourg as well as between Luxembourg, Audun-le-Tiche and Longwy (FR) were enhanced (Interview Ball 2016). Camps also considers the cross-border transport system to be good as there are several cross-border public transport offers and carpooling infrastructures. However, it is congested together with the roads because of the many cross-border commuters to Luxembourg (Interview Camps 2016). Therefore, it could be improved further, both the transport infrastructure and services. Delays and congestions in the public transport to Luxembourg need to be minimized (Interview Ball 2016) to make it more attractive (Interview Ries 2016). Furthermore, the individual motorized cross-border commuters should be shifted to public transport at the borders. Therefore, P&R parking spaces need to be established and bus and train connections are to be improved (Interview Jacquey 2016). Additionally, Weidenhaupt sees a need to further expand the cross-border transport infrastructure as most commuters use the individual car despite the existing public transport offer across borders which results in strong congestions. Weidenhaupt proposes the construction of a magnetic levitation train from Arlon (BE) respectively Trier (DE) to Luxembourg (LUX) based on a preceding market analysis. In general a cross-border transport strategy for the entire Greater Region is said to be missing (Interview Weidenhaupt 2016).

Many rail connections within the Greater Region are considered to need to be enhanced. The connections between Metz and Luxembourg are congested in the peak hours despite an expanded infrastructure. The

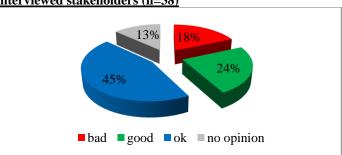
rail connection between Luxembourg and Bruxelles is considered to be very slow (Interview Sohn 2016). Also Ries sees the necessity to improve the accessibility of long distance rail connections (Interview Ries 2016).

Kiffer evaluates the transport system within the Greater Region to be in a bad condition. Despite a long history of cross-border commuters that has started before the Schengen-Agreement and existing basic transport infrastructures the transport across borders still has been challenged. The public transport was not developed sufficiently and most commuters relied on their own car. The rail network is said to be overcrowded between France and Luxembourg and in the Eurodistrict between Saarbrücken (DE) to Forbach and Metz (FR) (Interview Kiffer 2016). Sohn also acknowledges the need of improvement in the transport connections between Metz and Saarbrücken as most connections require a change of trains in Forbach (FR) (Interview Sohn 2016). Within the Eurodistrict SaarMoselle there are strong commuter flows from Forbach and Sarreguemines (FR) to Saarbrücken (DE) as well as between Saarlouis (DE) and Creutzwald (FR). Only 1% of these commuters use public transport although 15% would do so when the cross-border public transport offer would be more attractive. Thus, it is to be invested in public transport (Interview Kiffer 2016). Particularly the transport around Luxembourg is challenged because of the high and growing numbers of commuter flows. The expansion of the A31bis between France and Luxembourg is said not to be implemented before 2030 which challenges the smooth transport in the coming years. Besides the strong commuter flows there are long distance transport flows which cross the region in a north-south direction (ibid.). A well-functioning common information platform on the public transport offer is said to be missing (Interview Sohn 2016).

The TEN-T North Sea Mediterranean core network corridor which crosses the Greater Region is said to be one of the three most developed transport networks compared to the other core network corridors. Despite the advanced European integration status of the involved member states, several bottlenecks exist and the transport capacities could be increased. A high focus is said to be laid on cross-border sections. In this context Balázs also considers the cross-border transport system in the Greater Region compared to other EU cross-border regions to be good (Interview Balázs 2016).

# Comparison of the countries and cross-border institutions' evaluation of the status quo of crossborder transport

Overall the majority of the stakeholders interviewed evaluated the transport system in the Greater Region to be ok (see **Figure 55**). Those which evaluated it to be good, always named some minor challenges though.



# Figure 55: Evaluation of the status quo of the cross-border transport in the Greater Region by the interviewed stakeholders (n=38)

Source: Author, Kaiserslautern, 2017.

The interviewed stakeholders focused their description on the transport reality which directly concerns their regional borders. Individual infrastructural and transport service related challenges were reported. Several needs were valid for the whole Greater Region such as the reduction of motorized individual transport and the shift of passengers to public transport to minimise the experienced congestions in the peak hours and the environmental burden. Therefore, the public transport offer shall be made more

attractive. Mostly the emphasis was laid on the challenged transport situation at the borders to Luxembourg. Cross-border transport between Wallonia and Lorraine was never mentioned.

Belgian and Luxembourgish stakeholders described the **road infrastructure** to be good although challenged by congestions in peak hours. French and German stakeholders named some road infrastructure investments to be made because of these congestions whereas Luxembourg and Wallonia focused the investments on a better offer of cross-border services only. The different technical standards in the **rail transport** infrastructure were bemoaned by all regions as more expensive vehicles that can run on both systems were needed. This challenge has even led to a reduction of direct cross-border transport offers. Some bottlenecks and modernization needs were seen in Wallonia, Luxembourg and Rhineland-Palatinate. The expansion of **waterways** was only named as an important need by French stakeholders.

**Public transport** was to be enhanced at almost all borders, particularly when overburdened in peak hours. An additional challenge was the incomplete coverage of access to public transport because of several rural settlement structures in Wallonia, the Saarland and Luxembourg and less developed transport services at the external borders of the Greater Region. Additionally, no connections existed between Western Palatinate and Lorraine because of a missing demand. The train connection between Trier and Lorraine was considered not to be attractive by stakeholders from Rhineland-Palatinate but France was said not to be interested to improve the offer. Besides that, the different tariff structures, particularly compared to the strongly subsidised public transport prices in Luxembourg led to difficulties. This was a challenge named by almost all stakeholders. Sometimes it is even said to be impossible to book a direct ticket because the tariff structures were not sufficiently connected.

According to several stakeholders the **P&R** and **carpooling** infrastructures need to be expanded further. Only the Luxembourgish stakeholders named the promotion of soft mobility (bicycle and pedestrian transport) as an important need also for cross-border commuters.

Additionally, the accessibility of **high speed passenger and freight connections** was said to need to be improved by Rhineland-Palatinate, the Saarland and cross-border institutions. The TEN-T network in the Greater Region is considered to be in a good shape compared to other corridors. However, some bottlenecks at border sections exist.

In general Luxembourgish and cross-border stakeholders called for a better **coordination** of the transport offer and infrastructures e.g. by a common strategy and information platform. A stakeholder from the Saarland mentioned the Mobiregio platform as a good starting point for this.

The next section describes the institutions within the Greater Region which try to coordinate the transport development in the Greater Region.

# Cross-border interest groups and institutions of the Greater Region in the field of transport

As expected by the theory of *neo-functionalism*, the transnational bargaining in the Greater Region in the field of transport has led to the arising of transnational interest groups which potentially influence the further policy-making process. Their influence on the coordination of the domestic policies' aims will be analysed later in this chapter.

The **working group 'Transport'** (*AG Verkehr*) of the Summit deals with the improvement of transport connections and transport infrastructures within the Greater Region. It offers a **platform of exchange** on cross-border transport (Gipfel der Großregion n.y.). The group consists of one representative per member region of the Summit. Further interested persons involved in the cross-border region's structures can join as associated partners (Interview Hilt 2016; 2017). The working group meets once or twice a year (Interview Ludwig 2016; Interview Hilt 2016; 2017). Regularly a document on actions in

the field of transport infrastructures and public transport projects within the Greater Region is developed to **inform** the members on transport-related topics (Interview Ludwig 2016). Additionally, **experiences and ideas** in innovative and new mobilities are exchanged to learn from other regions (Interview Ludwig 2016; Interview Hilt 2016; 2017). **Maps** were created showing all car sharing parking spaces for crossborder commuters and the logistical platforms of the Greater Region. Both maps were published on the GIS website of the Greater Region. In the next meeting it shall be exchanged about local **projects** in the field of transport that were **funded by the EU**, e.g. INTERREG to get to know the projects better (Interview Hilt 2016; 2017). The exchange also has led to the **initiation of projects** that were later funded by INTERREG and thus is considered to be very relevant. Because of the territorial size of the Greater Region there are only few comprehensive transport projects like Mobiregio<sup>49</sup> in which all partners are involved (Interview Ludwig 2016). Furthermore, the exchange and development of proposals are said to contribute to a certain **coordination** of the transport development within the Greater Region (Interview Harmeling 2016)

In the current period it has been a challenge developing a common work programme because there are no concrete projects on which decisions can be taken. It is envisaged to exchange on transport-related topics in the five regions, e.g. the toll systems for roads etc. to get to know the neighbours better. The exchange of experiences is important to stay in **contact** with the other regions and cooperate in challenging times. However, currently there are no common envisaged objectives (Interview Hilt 2016; 2017).

The group works closely with the Coordination Committee for Territorial Development (Interview Ludwig 2016) and the working group ,Transport' of the WSAGR: there is a regular exchange between the three bodies (Ball 2016)

The Coordination Committee for Territorial Development (Koordinierungsausschuss für Raumentwicklung (KARE)) consists of administrative delegates from the ministries responsible for spatial planning in the different countries of the Greater Region (Interview Ball 2016). It is said to be able to influence the transport development across borders within its competence on territorial development. In this respect the KARE should integrate the different sectoral policies and ensure a coordinated spatial development (Interview Demortier 2016; Interview Arts 2016; Interview Vidal 2016). It can give impulses for the transport development (Interview Ries 2016). It shall steer the development of the Greater Region into a Polycentric Metropolitan Cross-border Region<sup>50</sup> (PMCBR). Thus, is has a clear task (Interview Chlench 2016). The KARE is considered to be a decisive body that facilitates the **communication** of stakeholders of spatial planning across the border. It is seen as a necessary basis or umbrella group to **coordinate** the spatial development of the countries (Interview Chlench 2016; Interview Schelkmann 2016) and therewith comprising the whole Greater Region, among others, in the field of transport (Interview Ball 2016; Interview Ries 2016). It has been exchanged about ongoing domestic projects and best practices. It thereby coordinated the spatial development to a certain degree (Interview Ball 2016). In the future the KARE shall propose the implementation of concrete projects and operations besides the studies it has conducted so far. This was decided by the regional politicians responsible for spatial planning on the meeting of the Summit of the Greater Region in November 2016 and thus is jointly supported politically (Interview Beck 2016). However, the competence for implementation stays within the respective regional administrations (Interview Ball 2016). So far and particularly in the last years there has been a good exchange between the working group 'Transport' and the KARE on transport issues which is considered to be of added value to define common comprehensive aims for the development of the Greater Region, besides the processing of

<sup>&</sup>lt;sup>49</sup> More information on the project Mobiregio is given in **chapter 6.3.5**.

<sup>&</sup>lt;sup>50</sup> More information on the GPMR will be given in **chapter 6.3.3**.

individual projects in separate working groups (Interview Ludwig 2016; Interview Planungsgemeinschaft Region Trier 2016). The KARE was involved in the development of a list<sup>51</sup> on transport projects that are of strategic relevance for the Greater Region to coordinate and **harmonize** the transport development with the residual spatial development of the Greater Region. These priority projects are said to be relevant for the polycentric metropolitan development of the Greater Region (Interview Schelkmann 2016). The influence of the KARE on political decision-makers, however, is said to need to be expanded (Interview Planungsgemeinschaft Region Trier 2016). According to Weidenhaupt, the pure existence of the KARE shows a political will to optimize the coordination of the spatial development within the Greater Region (Interview Weidenhaupt 2016).

The **working group**, **Transport' of the WSAGR** consists of members from labour unions, employers and workers as well as stakeholders from regional ministries. Not all have a direct working experience in the field of transport. Therefore, the internal discussions tend to be controversial. It **develops** new **ideas and proposals** for the working group 'Transport' of the Summit of the Greater Region. The main task, however, is to **give its view** on projects and current topics within the Greater Region like traffic avoidance by telework. All aspects of transport are considered – transport infrastructures and services. Additionally, there are sometimes exchanges with the KARE on spatial development (Interview Dostert 2016). The developed advices have a certain influence on the **coordination** of cross-border transport (Interview Harmeling 2016). Besides that, the WSAGR has been in contact with the European Commissioner for transport and has developed an **opinion** on the planned motorway toll in Germany (Interview Weidenhaupt 2016).

The **commission for 'Transport and Communication' of the IPR** develops **advices** for the Summit of the Greater Region in the field of cross-border transport development. Among others, these contain **development aims**. After these are approved internally by the IPR they will be forwarded to the Summit. Additionally, the IPR organized **conferences** on transport mobility in the Greater Region which are said to have had positive **effects on the implementation** of bilateral projects (Interview Ries 2016).

Steering Committee (*Lenkungsausschuss*) GIS GR has developed many cross-border maps which analyse the status quo of the region's spatial development. This is considered to facilitate planning across-borders (Interview Ripp 2016) and shall support all working groups of the Summit of the Greater Region. The geographic information system of the Greater Region was established as part of an INTERREG A project of the Greater Region. In 2013 it got a permanent structure. The aim is to harmonize the geographical data of the regions that form the cross-border region to develop common maps. These shall assist the political decision making at the cross-border regional level and inform the broad public as they are freely accessible on the internet (Ministère du Développement durable et des Infrastructures de Luxembourg 2016, 5).

The developed policy documents and concrete projects of the institutions of the Greater Region are presented in **chapter 6.3.3** and **6.3.5**.

The next section describes shortly the countries' administrative structures followed by a presentation of the different transport planning approaches and the influence of the different administrative levels on the domestic and cross-border transport development. At the end of the section the distribution of transport competences among the countries is compared in order to determine potential challenges in the coordination of the transport development across borders.

# 6.3.2 Functioning of the involved domestic transport systems

This chapter complements the description of the member states' initial situation of the last chapter by analysing the member states' political structure in the field of transport. As stated above, the four

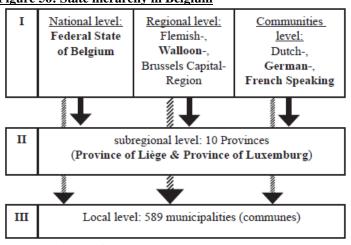
<sup>&</sup>lt;sup>51</sup> More information on the priority list will be given in **chapter 6.3.3**.

countries involved in the Greater Region are all 'old' member states of the European Union. Thus, they are considered to share similar values and to be integrated very well. However, in the field of spatial and transport planning – as it remained a national competence – differences still exist. These potentially hamper a smooth coordination of the transport development across borders and are to be detected in this section. Thereby this section provides an overview of the four different countries' transport planning approaches – including the existing domestic policies which steer the transport development – and develops a knowledge basis for stakeholders interested in a better coordination of transport development across borders in order to contact the responsible levels and better understand the processes which take place on the other sides of the borders.

In the following the involved domestic transport systems are presented in the countries' alphabetical order. First, a short overview on the state hierarchy systems of the member states is given, followed by a description of transport competences and tasks of the different administrative levels and actors involved in transport policy making of the four member states and five regions. At the end of this section, the different systems are compared.

## Belgium

Belgium is a federal state with three hierarchy levels. It consists of three regions and three communities. The national level's sole decision-making competences have been decentralised in some issues to the regional and communities' level. Some stayed in the sole responsibility such as justice, social security and national defence. Foreign affairs can be handled at national, regional and communities' level. The **communities** have been defined according to the three different official languages of the country (French, Dutch and German) and the related cultures. Besides that, there are three **regions**: the Walloon, Flemish and Brussels Capital Region. The community and regional levels are competent in certain tasks. The three levels described above are equal towards law. There is no hierarchy between them (see **Figure 56**) as they are responsible for different tasks (Belgian Federal Government 2017a).





Hierarchic below them are the **provinces**. They are controlled by all three higher levels in their respective responsibilities. The provinces are competent in managing all issues which are of interest for them and which are not organized by the higher levels (ibid.).

At the end of the hierarchy there are the **municipalities** that can act autonomous in their fields of competences. Doing that, however, they are mainly controlled and financed by the regions. However, depending on the issue, the responsibility can change to the national or community level (ibid.).

More information on the transport-related responsibilities can be found below.

Source: Author, Kaiserslautern, 2017.

# National level

At national Belgian level the Federal Public Service (SPF) *Mobilité et Transports* is responsible for the **analysis** of the mobility, the development of mobility and **transport strategies** (Service public fédéral Mobilité et Transports, Belgium 2015c). In this context the SPF is supported by the *Bureau fédéral du Plan*. Together they develop transport indicators to measure the transport development, and establish **previews** on the future passenger and freight transport development until 2030 (Service public fédéral Mobilité et Transports, Belgium 2015a).

The Belgian national level is also involved in specialised construction works. This comprises all transport modes in their short and long term needs (Service public fédéral Mobilité et Transports, Belgium 2015c). Additionally, it coordinates **EU programmes and funds** (Connecting Europe Facility and Shift2Rail) with the Belgian transport sector (Service public fédéral Mobilité et Transports, Belgium 2015b). It is also responsible for the development of the **TEN-T network** and implementation and financing of EU projects in the **rail sector** (Interview Castagne 2016).

The Belgian Railways (SNCB) are state-owned and therefore under the control of the federal government of Belgium. The national state is responsible for the **public rail transport** of Belgium (Service public fédéral Mobilité et Transports, Belgium 2015d). In this context the state develops a *projet de plan pluriannuel d'investissements ferroviaires* (**PPI**) (multiannual project plan on rail investments) - which was suspended in 2016 because of budgetary difficulties - and a *plan de transport de la SNCB* (transport plan of the Belgian railways) (Interview Castagne 2016). Both plans are established in parallel (Interview Demilie 2016). The current version of the latter plan dates from 2014. It is to be updated every three years – the next time in the end of 2017 to respond to new needs and adapt the offer (Interview Castagne 2016). Besides defining national **projects**, the new PPI 2013-2025 offers a co-funding possibility of the national level and its regions. The regions therefore have to define priority projects together with the SNCB which can be co-funded. Some of these could contribute to the improvement of the TEN-T and thereby benefit from additional EU funds (Groupe SNCB 2013, II 46).

**Rail freight transport** is also managed by the national level (INFRABEL): INFRABEL awards the usage rights of the rail tracks to private enterprises based on the payment of fees (Interview Castagne 2016). INFRABEL as well as SNCB implement these rail tasks for the state, based on a management contract (*contrat de gestion*) with the state which is renewed every seven years. It defines the principles of public service provision and their payment (Etat Belge 2014a, 1).

Additionally, the Belgian national level is responsible for the management of the **Bruxelles airport** (Interview Castagne 2016).

A special characteristic of the Belgian transport system is that besides the two rail policy documents and the management contract there are no comprehensive national transport plans because the competences for the other transport modes are regionalised. Therefore, cross-border transport is mainly managed at regional or local level (Interview Demilie 2016). Only cross-border rail transport, including investments in infrastructure and the design of services, is coordinated at national level.

Besides these main transport-related policies, further national Belgian documents relate to transport:

The **national climate plan of Belgium** (*Plan National Climat de la Belgique 2009-2012*) (**PNC**) proposes national actions and informs about regional strategies to reduce climate change and harmonize the different legislations. Many actions in the transport sector are proposed (Commission Nationale Climat, Belgique 2008). However, it does not define concrete binding aims for the reduction of climate change (Interview Castagne 2016).

The action plan on renewable energies of Belgium (*Plan d'action national en matière d'énergies renouvelables*) (**PANER**) clarifies the competences on energy in the country. It also lays down some actions concerning transport and the usage of renewable energies (Belgique 2010).

For the later analysis also the EU relevant documents **National Strategic Reference Framework**, **Partnership Agreement** and **National Reform Programme** of Belgium have been taken into account and analysed in terms of their transport objectives.

## Regional level

The three Belgian regions are responsible for **spatial planning** and the transport development, except of the rail sector which is a national competence (Belgian Federal Government 2017d). They decide about **national road, motorway** and **waterway** investments as well as **regional airports** (Interview Castagne 2016). In the following a focus is laid on the Walloon region as it is the only region encompassed by the Greater Region.

In the Walloon region the Ministry for the Environment, Spatial Planning, Mobility and Transport and Well-being of Animals (*Ministère de l'Environnement, Aménagement du Territoire, Mobilité et Transports at Bien-être animal de la Wallonie*) is responsible for spatial planning and transport. One minister takes care of both issues and a certain coordination of the policies might be the case. The subordinate administrations, however, are separated (Interview Demortier 2016).

The Walloon region has developed a *Schéma de développement de l'Espace Régional (SDER)* (Regional development concept) in 1999. It shall coordinate the territorial development of the region also in a European context (SERVICE PUBLIC DE WALLONIE c). In 2011 a diagnosis on the territorial development (*Diagnostic territorial de la Wallonie* (DTW)) was developed by the Permanent Conference on Territorial Development as a basis for the renewal of the SDER (Conférence Permanente du Développement Territorial 2011, 7). Both documents address the transport development of Wallonia.

The **SDER** was updated in 2013 and provisionally adopted by the Walloon government before the public participation which took place between November 2013 and January 2014 and an environmental impact assessment (Cellule Urbanisme Mons 2013). Until early summer 2017 the renewed document has not been fully adopted.

Additionally, a regional mobility concept (*Schéma regional de Mobilité* (SRM<sup>52</sup>)) was officially adopted by the Walloon government in spring 2017. It has a time horizon to 2030. The concept directly treats all transport modes except of rail. However, it establishes links to the national rail policies to ensure a coordination. The concept defines public transport and transport infrastructure investments (Interview Castagne 2016). The concept relates to the new SDER and the cross-border transport concept SMOT which was established by Wallonia and Luxembourg. It also defines own aims for the cross-border transport development (SERVICE PUBLIC DE WALLONIE 2016b, 14,27).

The three Belgian regions jointly developed a Belgian **toll system for lorries** on motorways and main roads. Additionally, they are asked to deliver an opinion to the SNCB on the *plan pluriannuel d'investissements ferroviaires* and the *plan de transport de la SNCB* (Interview Castagne 2016). In this context a **Development plan on the rail accessibility of Wallonia** (*Plan de Développement de la desserte* ferroviaire) was established in 2012. It shall ensure a coherent rail policy of Wallonia and defines an action framework for the rail development with respect to the national competences (TRITEL 2012, 8). In 2015 an analytical report on the **Revitalization of rail freight in Wallonia** was developed by the Walloon government.

<sup>&</sup>lt;sup>52</sup> In the beginning the document was called Plan Regional de Mobilité Durable (PRMD) but changed after some time the name (Castagne 2016).

The Walloon government funds **alternative modes** of transport. The funding requirements are defined in the *Plan wallon d'aides aux modes de transport alternatives à la route*. The programme aims at minimizing emissions, congestion, land consumption and accidents (SERVICE PUBLIC DE WALLONIE 2013).

The Walloon territory is divided in 23 so-called 'sectors' (see **Image 28**) for which **sectoral plans** have been developed. Despite their subregional nature these territorial development plans are steered by the regional Walloon level. The plans lay down land use regulations and define the main transport routes (SERVICE PUBLIC DE WALLONIE c).

#### Image 28: Sectoral plans in the Belgian Walloon region



#### Source: SERVICE PUBLIC DE WALLONIE b.

Furthermore, the Walloon region offers **consultancy meetings** on mobility challenges for the municipalities and other interested actors. Additionally, a **mobility working group** has been established for the cooperation between the Walloon municipalities to exchange and commonly support each other (Commission Nationale Climat, Belgique 2008, 111).

Besides the pure transport focused policies Wallonia has published a **Declaration on the future policy of the region** until 2019 (*Déclaration de politique régionale wallonne 2014-2019* (DPRW)) in 2014 in which the main aims and fields of policy concentration are defined. One of these categories also treats transport mobility (Conseil provincial de la Province de Luxembourg 2012).

The **Marshall Plan 4.0** which was published in 2015 defines priorities for the economic redevelopment and the creation of jobs in the Walloon region (PM 2015: 5f.). It also relates to the transport development.

Additionally, agreements with the EU have been developed at regional level like the **Operational Programme on Regional Competitiveness and Employment** (2007/15) and the **Walloon Strategy for Intelligent and Inclusive Growth** (2014).

In special occasions an **interdepartmental mobility conference** (*conférence interministérielle de la mobilité*) of all Belgian transport authorities can be convoked to coordinate issues between the federal and regional levels. These are, however, not considered to be very effective. Besides that, because Wallonia missed a valid regional mobility concept (SRM) for a long time (it was officially adopted in spring 2017) a coordination of the policies from national and regional level only existed when the regions delivered opinions on national rail plans. These need to be taken into account by the national level (Interview Castagne 2016; Interview Demortier 2016).

The Walloon region contains the French and German speaking communities. The communities are responsible, among others, for the international relations of their territory (Belgian Federal Government 2017b). As the German Speaking Community (GSC) is an official member of the Greater Region, the influence of its policy documents is also taken into account in this dissertation. The GSC does not possess a formal competence in the field of transport, mobility or infrastructures. Still it is responsible for cross-border contacts. It aims at fostering alternative, innovative public transport concepts and promotes the sensitisation for sustainable transport in schools. The GSC has established a regional development concept (Regionales Entwicklungskonzept) (REK) which defines future actions in all competence fields of the community. Also aims and actions in the field of transport and energy e.g. studies are defined. This was done, among others, to communicate the aims also outside the borders of the GSC. The regional development concept was developed in 2009 and updated in 2011 and 2015. It shall be implemented until 2025. As the GSC does not have the formal competence in transport it cannot implement own transport projects itself. It has to convince Wallonia to do so and supports the projects financially if possible. Besides that, it is said to frequently contact the ministers in Bruxelles and Namur and lobby to make its aims be implemented. In 2016 it was said to be negotiated about the takeover of the spatial planning competence by the GSC. This, however, might take some more years, discussions might restart after the elections in 2019 (Interview Hilligsmann 2016).

To sum up, Wallonia is responsible for all other transport modes than rail and develops both infrastructures and services also in relation to the bordering regions. It also tries to influence the rail development. The German Speaking Community has no formal competence in the field of transport but supports certain transport focuses.

#### Subregional level

Belgium is divided into ten **provinces** (Belgian Federal Government 2017e). Two of them - Liège and Luxembourg - are involved in the INTERREG A cooperation space of the Greater Region. The provinces are responsible for the **waterways** and **highways** as well as **spatial planning** on their territory. They are autonomous but supervised by the regional level (Belgian Federal Government 2017c). The provinces can voluntarily develop strategies to improve their internal mobility and try to make the national and regional level take into account the provincial demands. Because the province of Luxembourg faces severe challenges in the daily mobility – among others, due to the strong dispersion of its citizens – it has developed several policy documents (Interview Demortier 2016).

The Luxembourg province developed a **White Paper on Mobility** (*Livre blanc de la mobilité* (LBM)) on its territory in 2010 and published an opinion in 2015 on the Regional Mobility Concept (SRM) which was established in 2017 by the Walloon region.

Furthermore, the province developed a **Spatial Development Strategy** (**SDEL**) (*Stratégie de développement de l'espace* Luxembourgeois) which was updated by the **Integrated Territorial Strategy** (**STI**) (*Stratégie territoriale intégrée pour la province de Luxembourg*) in 2015.

The general policy aims of the province are defined in the *Déclaration de Politique Générale*.

In the Liège province a **spatial development concept** and a **mobility plan** (*Schéma Provincial de Développement Territorial* (SPDT) and *Plan Provincial de Mobilité* (PPM)) are currently being developed in cooperation with the municipalities and shall be finalised in 2017 (Interview Antoine 2016). The aim is to strengthen urban and municipal centres, increase their attractiveness and promote alternative transport modes besides the individual car (Province de Liège 2016, 4). The spatial development concept identifies the existing territories for **freight transport** and analyses their modal accessibility. At provincial level **bicycle** mobility is only taken into account in the context of tourism. Transport safety and pedestrian mobility are not taken into account by the provincial documents

(Interview Antoine 2016). Additionally, a **rail freight transport strategy** is to be established in the province. In 2016 a study was conducted to analyse the status quo and rail freight potentials of the province (GRE-Liège 2016).

Other important provincial policies are the **political declaration on the general policy for 2012-2018** of the province and the **territorial action plan on sustainable energy** (*plan d'actions territorial en faveur de l'Energie durable*).

At provincial level there is no competence for public transport. Besides that, voluntary transport strategies can be developed without direct binding nature. However, the developed spatial plans are binding for the lower levels.

## Local level: municipalities

The local level regulates the local infrastructures and services. At local level a municipal mobility plan (*plan communal de Mobilité*) (**PCM**) can be established. It can comprise one or several municipalities (as in the case of the Walloon Brabant municipality) or even just a part of a municipality. It shall coordinate the transport of goods and passengers and improve the accessibility as well as the safety (SERVICE PUBLIC DE WALLONIE d). The plan contains aims on **bicycle** and **pedestrian mobility** as well as transport safety (Interview Antoine 2016). If municipalities develop a PCM, they can apply for regional funds the so-called *credits d'impulsion* for pedestrian and bicycle mobility investments (Interview Castagne 2016).

Since 2004 it has also been possible for metropolitan regions or *arrondissements* to establish an **urban mobility plan** (*Plan Urbain de Mobilité* (**PUM**)) to coordinate the transport accessibility and mobility of neighbouring municipalities. It shall take into account the mobility strategy of the regional development concept (SDER). The PUM shall manage transport and **parking** structures as well as the accessibility. Furthermore, it shall contribute to a higher multimodality. Additionally, the development of **public transport** and **soft mobility** is also to be steered by the plan (Jean-François Leblanc 2014).

Further plans focusing on spatial planning are the *Schéma de structure communal (SSC)* (municipal structure concept) and the *règlement communal d'urbanisme (RCU)* (municipal regulation on urbanism) as well as the *Plan communal d'aménagement (révisionnel) (PCA)* (municipal territorial plan) (SERVICE PUBLIC DE WALLONIE a). The latter plan contains information on transport development alternatives (SERVICE PUBLIC DE WALLONIE e).

## Public transport providers

As was stated above, the SNCB (*Societé nationale des chemins de fer* belges) is the **rail** transport provider of Belgium. The trains *InterCity* and *Omnibus* are run at regional level. Three cross-border connections are offered (GIS-GR 2015c). The high speed train *Thalys* crosses the region and connects it to destinations outside the country (Mobilitätsportal Großregion n.y.b).

The whole public **bus** transport of Wallonia is managed by the so-called *Groupe TEC* (*Transport en Commun*) on behalf of the Walloon region (Interview Castagne 2016). The TEC is controlled by the regional transport society of Wallonia (SRWT) (see **Image 29**). Additionally, the SRWT proposes tariff structures and infrastructure investments and implements the latter after the regional government's approval. The TEC group is divided into five subregional transport providers, among others, TEC Liège-Verviers and TEC Namur-Luxembourg which operate in the provinces of Liège and Luxembourg. There are no further municipal bus transport providers (Société Régionale Wallonne du Transport n.y.). The TEC offers elven cross-border bus lines between Wallonia and Lorraine and between Wallonia and Luxembourg (GIS-GR 2015b).

The **public-school transport** in Wallonia is supervised by the public administration of Wallonia (SPW) which controls the transport concessions of the public transport providers. Besides that, it proposes new policies and implements them into law after the regional government's approval. Additionally, it administrates the funds (Société Régionale Wallonne du Transport n.y.).

Image 29: Management structure of the Walloon public bus transport services



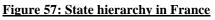
## Source: ibid.

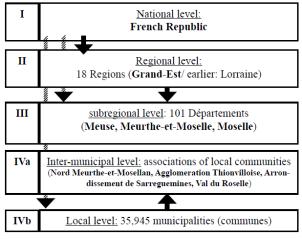
Every five years the Walloon region defines the public bus transport offer to be provided by the TEC and establishes a contract with the SRWT and the five subregional transport providers (ibid.). Thus, the region mainly influences the public bus offer whereas the rail services are controlled by the national level.

In Wallonia the national officials of Belgium as well as the Walloon officials can use the public transport of Belgium respectively Wallonia on their trip to and from work for free (Commission Nationale Climat, Belgique 2008, 112).

# France

France is divided in three main kinds of territorial authorities: **regions**, *départements* and **municipalities**<sup>53</sup> (see **Figure 57**). Since 2003 France is officially organized in a decentralised manner. Starting in the 1980ies several competences have been moved from the national level to the regions, *départements* and municipalities. Decentralised authorities were established in these competence areas. At the same time many municipalities have started to cooperate with each other and to establish intermunicipal entities by grouping their competences and human as well as financial means (Assemblée Nationale de la France 2017).





Source: Author, Kaiserslautern, 2017.

<sup>&</sup>lt;sup>53</sup> There are two special additional bodies: metropolitain regions and the French overseas collectivities (Assemblée Nationale de la France 2017). These are not described further because not being relevant for this dissertation.

On the three lower administrative levels the state is represented by the mayor in municipalities, and prefects in the *départements* and regions. However, the regions and *départements* manage certain predefined tasks without direct national control. Besides the national representatives, every region and *département* is steered by a council (*Conseil regional* and *Conseil départemental* (Großregion n.y.). The municipalities are even more autonomous as they are free to organize all tasks alone which are relevant at the municipal level. Some tasks are assigned to a certain level only, other competences are shared on several levels (Assemblée Nationale de la France 2017). However, as France used to be a centralistic state, the national level has remained very powerful in some tasks, e.g. in the field of transport (Interview Bost 2016).

As can be seen in **Image 30** France is divided in 18 regions (*régions*). The region relevant for the crossborder region analysed in this case study is the 'Grand Est' which has been recently established by grouping the former regions Lorraine, Alsace and Champagne-Ardenne in 2016. This region consists of 10 *départements* (Institut national de la statistique et des études économiques n.y.).



**Image 30: French regions and the region Grand Est** 

#### Source: ibid..

Of these the following *départements* belong to the Greater Region: Meuse, Meurthe-et-Moselle and Moselle (Großregion n.y.). Based on the creation of the Grand-Est also the *départements* Bas-Rhin, Haut-Rhin, Vosges, Haute-Marne, Aube, Marne and Ardennes might become part of the Greater Region in the future (Région Alsace Champagne-Ardenne Lorraine n.y.). However, as this has not been decided so far, the dissertation solely takes into account the current situation in which the *départements* of the former region *Lorraine* belong to the Greater Region.

#### <u>National level</u>

The national level is in charge of the maintenance, development and security of the **national roads** and **motorways** for passenger and freight transport (Ministère de l'Ènvironnement, de l'Énergie et de la Mer, France a). The **railways** belong to the national infrastructure and the national rail company SNCF is responsible for the national and international high speed train connections whereas the regions are responsible for the regional train services (Interview Bost 2016; Interview Beck 2016). The national level is also responsible for the **airports** (Interview Beck 2016). **Waterways** are also planned by the state (Interview Bost 2016), and co-funded by the state, the region and the *Départements* (Interview Hilt 2016; 2017). Thus, the national level is a very important actor in the transport development of France (Interview Beck 2016).

The national level develops a *Schéma national des infrastructures de transport* (SNIT) (national concept on transport infrastructures) in which a framework on the maintenance and enhancement of the French transport networks, the land use, environmental impacts and funding for the French territorial authorities' transport networks is defined (Ministère de l'Ènvironnement, de l'Énergie et de la Mer, France a).

In 2013 a national plan called *Mobilité 21* was developed which contains a list of transport projects with different priorities that shall be implemented in the short term, until 2030 or until 2050 (Interview Bost 2016).

Additionally, the so-called *Programmes de modernisation des itineraries routiers* (**PDMI**) were developed by the national level for the funding period 2014-2019. They defined the modernisation investments for the national roads which are maintained by the state for a period of five years. Thereby they implemented the objectives of the SNIT in concrete projects (Ministère de l'Ènvironnement, de l'Énergie et de la Mer, France b). Only those national road projects that were defined by the PDMI could be funded. In 2015, however, the PDMI was replaced by the *Contrat de Plan État-Région* (CPER) 2015-2020 (Interview Hilt 2016; 2017).

Together with the regions the national level develops a contract on the funding of the spatial development projects and transport infrastructures, the *Contrat de Plan État-Région* (CPER), which defines the funding of spatial development projects for a period of six years. The CPER defines the height of funds and the investors. If projects are not included in the CPER there are only low chances to implement them. The *départements* are involved in the negotiations on the projects (Interview Bost 2016). The current CPER of the former region Lorraine is valid for the period 2015-2020 but will be unified together with the CPER of Alsace and Champagne-Ardenne in a CPER for the new region Grand-Est (Interview Hilt 2016; 2017).

The *Directives territoriales d'aménagement* (DTA) (spatial planning directives) can be established by the state to strategically define basic orientations for the long-term spatial development of certain parts of the country. These can cross administrative units. It can lay down aims concerning the localization of large transport infrastructures and environmental protection. The aim of these directives is to increase the coherence between the national political objectives and their implementation into practice in the most sensitive areas. Thus, directives should not be established for the whole French territory but in areas which are very important for the spatial and transport development, environment or in which land-use conflicts need to be solved. These DTAs are developed by the state under the involvement of the concerned territorial units. The DTAs need to be taken into account by the spatial plans of the municipalities. A DTA has been established in Lorraine in 2005 for the area of the *Bassins Miniers Nord-Lorrains* (Berthelot 2013).

EU relevant documents of the national level are the **National Strategic Reference Framework** from 2007 as well as the **Partnership Agreement** (2014) and the **National Reform Programme** from 2015.

To sum it up, the national level is responsible for high speed cross-border transport services and investments in most infrastructures.

The French national government defines a so-called *Préfet* (prefect) for each region which represents the national state. The prefect develops a regional strategy (based on the national aims and is responsible for the adherence of the national law and interest. He is in charge for the implementation of national policies in the field of spatial planning. Furthermore, the prefect controls the decisions of the Regional Council (*Conseil Régional*) and the regional public bodies (La Préfecture et les services de l'État en région Grand Est France 2015).

To ensure the implementation of the national policies in transport planning in each region a so-called *Direction régionale de l'Environnement, de l'Aménagement et du Logement* (DREAL) was established. Under the authority of the prefects of the region and the *départements* concerned, the DREAL is responsible for the implementation of certain national policies (Direction Régionale de l'Environnement, de l'Aménagement et du Logement et du Logement et du Logement de l'Environnement, de l'Aménagement et du Logement de l'Environnement, de l'Aménagement et du Logement Grand Est France 2016).

## Regional level

Although several competences in the field of transport are centralised, the lower levels are said to be often involved at least in the financing because of reduced public funds (Interview Beck 2016). For instance, they partially **finance infrastructure** constructions, also of national tracks which cross their territory (Direction de l'information légale et administrative 2016a). However, the regions do not have a competence for roads (Interview Bost 2016). Since 2002, the regions have been responsible for the development of **sea** and **airports**. Besides that, they shall develop **regional air quality plans** (Direction de l'information légale et administrative 2016a).

The regions are competent in **public transport**: they manage the regional passenger transport, with a main focus on **rail** transport (TER). In this context they also invest in the rolling stock of the regional trains (Interview Hilt 2016; 2017). Cross-border rail passenger services can be developed by the regions in cooperation with the transport authorities of the neighbouring states based on a convention. Additionally, the national SNCF can develop a convention with a public transport provider from the neighbouring region to coordinate the services. Furthermore, such a cooperation could also be organized in a European Grouping of Territorial Cooperation (EGTC) (République française 2017, L. 2121-7). Since 2017 the regions are additionally responsible for the organization of the **inter-municipal public transport** services, including public school transport, and the maintenance of **rail stations**. This competence was earlier owned by the *Départements* (Direction de l'information légale et administrative 2016a).

The regional level transport policy instruments are described based on the documents of the former region Lorraine and the new documents of the region Grand-Est – if relevant. The documents of the former regions Champagne-Ardenne and Alsace, however, are not taken into account because they have formally not belonged to the Greater Region so far.

In 2012 the Regional Council of Lorraine published a strategic vision *Lorraine 2020* which was based on a broad public participation, experts and existing documents (Région Lorraine France 2011, 5).

The French regions are competent in spatial planning and have to establish a **regional development concept** for the spatial, sustainable and equal, territorial development (*Schéma regional d'aménagement, de développement durable et d'égalité des territories* (**SRADDET**)). This concept shall be established until 2019 for the Grand-Est (Interview Bost 2016). It shall define the territorial development objectives for the mid- and long term of the region - also in the field of transport (Conseil économique, social et environnemental de la région Alsace Champagne-Ardenne Lorraine (CESER) 2015, 5). The *Conseil Régional* has the competence for both fields of planning. Thus, the regional level is in charge to strategically coordinate the spatial and transport development (Interview Arts 2016). The spatial plans or concepts at lower level have to take these objectives into account and ensure that they are compatible with the SRADDET (Conseil économique, social et environnemental de la région Alsace Champagne-Ardenne Lorraine (CESER) 2015, 5).

Additionally, as already mentioned above, in cooperation with the national level (usually in person of the prefects (Interview Straehli 2016)) the regions develop a **CPER**. During the current funding period (2015-2020) multimodal mobility investments can be funded, among others, under this contract (Commissariat Général à l'Égalité des Territoires 2015). Between 2014 and 2016 an additional special

contract was established between the national state and Lorraine (*Contrat particulier Etat* – Lorraine) which financially supported the *Pacte Lorraine*. The latter is an economic development strategy for Lorraine which was developed by the prefect of the region together with regional actors and contains 16 concrete actions (Région Lorraine France 2013, 5). In 2015 a regional innovation strategy for Lorraine was published (*Stratégie Régionale d'Innovation de la Région Lorraine – Specialisation intelligente*) (**SRI-SI**) in line with the Europe 2020 Strategy. The funds shall be focused on certain priorities and needs (Région Lorraine France 2015, 5).

With the establishment of the region *Grand Est* the Regional Economic, Social and Environmental Councils (CESER) of the three earlier regions Alsace, Champagne-Ardenne and Lorraine have developed a common working document *Aménagement du Territoire, Transports, Mobilité*. It relates to the current status of the spatial and transport development and defines future objectives to contribute to an intelligent, sustainable, inclusive and equal development (Conseil économique, social et environnemental de la région Alsace Champagne-Ardenne Lorraine (CESER) 2015).

In addition, 15 regional public transport committees (*Comités Régionaux des Services de Transports*) (COREST) have been established in the region *Grand Est* (see **Image 31**) to coordinate and discuss the regional public transport network including the regional railways and roads on the different territories. They meet once a month (Région Grand Est 2016).

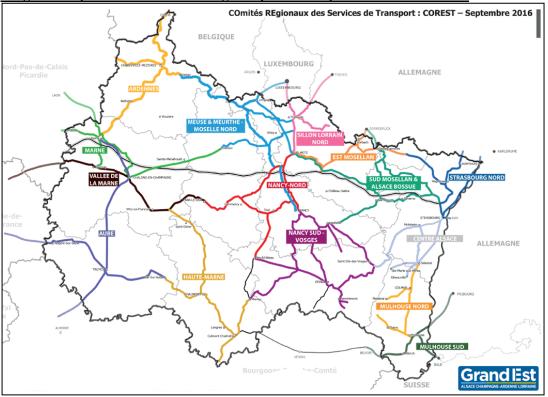


Image 31: Map of the location of the regional public transport services committees

#### Source: ibid ...

The committees shall mediate between the national railways (SNCF), the region *Grand Est*, local partners, and the users and develop the public transport service offer further based on the regional needs (ibid.).

At regional level some environmental concepts are to be established which relate to the transport development of the region. The regional climate air and energy concept (*Schémas Régionaux Climat Air Energie* (SRCAE) shall lay down objectives in the fields of energy consumption, air pollution, renewable energies, reduction of  $CO_2$  emissions and climate change (Région Lorraine France 2012, 8).

The *Schéma Régional de Cohérence Ecologique* (SRCE) (regional concept for ecological coherence) aims at developing or securing ecological corridors and buffer zones as well as areas with high biodiversity (*trame verte et bleue*). (SRCE Resumée: 1). It thereby also slightly influences the transport development.

To sum up, the regional level has less infrastructural competences than the national level, however, it is responsible for the provision of regional rail and bus services – also across borders.

### Subregional level: départements

Since the territorial reform and the related new regulations, which came into force in January 2017, the départements are solely responsible for the management of rural infrastructure, including the expansion and maintenance of subregional roads and the management of the public school transport of handicapped persons (Interview Arts 2016; Interview Beck 2016). When upgrading a road which is considered to be very important for the whole region the subregional level can ask the regional and national level for financial assistance (Interview Arts 2016). Before 2017, the départements were competent in passenger transport services in general. This competence was moved to the regional level (ibid.). Also the different départemental transport providers were grouped in a common organization at regional level (transdev GRAND EST n.y.). Still the départements can be asked by the regional level to manage the school transport (Direction de l'information légale et administrative 2016a). Besides that, the *départements* are also competent in **spatial planning** but do not establish development concepts or plans (Interview Arts 2016). The transport development is considered to be a very important element for the spatial development and therefore is directly connected to spatial planning. In the sillon lorrain housing areas are strongly attached to transport infrastructures. Therefore, spatial planning aims at promoting intermodality. However, the strategic competence to coordinate the transport and spatial development is owned by the regional level (ibid.). The *départements* are strongly involved in crossborder cooperation and in cross-border transport (Interview Bost 2016).

In 2016, the *département* Meurthe-et-Moselle was developing a concept on the improvement of the accessibility of public services (*Schéma départemental d'amélioration de l'accessibilité des services au public*). The aim of the concept is to amend the offer of services to the local needs. It shall include strategies and an action programme on the development of transport as well (Préfet de Meurthe-et-Moselle 2016). The concept shall be established until the end of 2017. In addition, the *département* published a brochure with transport aims: *Transports et routes – Se déplacer, se rapprocher*. A so-called *Schéma départemental de transport et de mobilité* (mobility and transport concept of the *département*) was developed in 2011/12. It lays down a hierarchy of the roads of *Meurthe-et-Moselle*. Furthermore, it describes the public transport lines and networks including the bus stops (Interview Arts 2016).

The *département* Moselle has developed a *Plan Départemental de l'Habitat* which shall ensure an equal development of the municipalities within a *département* by coordinating the local habitat plans. The plan was developed in cooperation with the national level and the concerned municipalities (Conseil Général Département Moselle 2012, 7). Besides that, there is no official document on cross-border transport. However, there are plans to pragmatically coordinate the **winter road clearance** on *département* roads across borders without a formal institutionalisation (Interview Beck 2016).

The *département* Meuse decided on a press conference in 2009 to establish a new **Schema des transports** (transport concept).

Because of the low number of commuters between France and Germany compared to the numbers between France and Luxembourg, the development of **cross-border transport between Lorraine and Germany** is said not to be steered on the regional scale but at lower local or *département* level (Interview

Hilt 2016; 2017). However, the formal competence for public transport was delegated to the region. Besides that, the subregional level is only responsible for **subregional infrastructures**.

## Inter-municipal level

As mentioned above, in France associations of local authorities (*syndicat intercommunal*) can be established. These can establish **SCoTs** (*Schémas de Cohérance Territoriale*) (territorial cohesion concepts): strategic inter-municipal spatial plans for a larger area, comprising several bordering municipalities. The plan shall integrate and coordinate different sectoral policies that have an impact on urban space organisation, commercial mobility, environment and habitats - among others, transport. Therefore it defines aims for the transport development (Région Alsace Champagne-Ardenne Lorraine 2016b, 5). As soon as the SRADDET is established the SCoTs have to adapt their objectives to the regional framework (Conseil économique, social et environnemental de la région Alsace Champagne-Ardenne Lorraine (CESER) 2015, 6). It is not mandatory to establish such a plan. Large parts of the *Grand Est* have not been covered by a SCoT so far (Région Alsace Champagne-Ardenne Lorraine 2016b, 5). The SCoTs are established by a *Syndicat Mixte* which consists of several municipalities but not the whole territory of a *département*. However, the *départements* are associated in the establishment process (Interview Arts 2016).

The associations of local authorities can be charged with the maintenance and expansion of **local roads** by the municipalities (Interview Beck 2016). The intermunicipal level can also be involved in the financing of a large scale infrastructure together with the national, regional and *département* level if their territory is concerned (ibid.).

To sum up, the inter-municipal level develops spatial concepts which contain aims for the transport development and maintain local roads which can have a relevance for cross-border transport when being situated in the vicinity of the national border. In the analysis the SCoTs of the associations of local communities Nord Meurthe-et-Mosellan, Agglomeration Thionvilloise, Arrondissement de Sarreguemines and Val du Roselle were analysed as these are situated directly at the French borders to the Saarland and Luxembourg which are involved in the Greater Region.

## Local level: Municipalities

The municipalities are responsible for the maintenance of municipal **local roads** and shall contribute to a sustainable mobility. As stated above they can also delegate this task to an association of local authorities (Interview Beck 2016; Direction de l'information légale et administrative 2016b). In contrast to Belgium, the French municipalities are competent to organise the **local public transport** within their cities, i.e. buses (Interview Hilt 2016; 2017; Interview Bost 2016). In the cross-border transport they can coordinate the timetables of public transport or initiate **pedestrian** and **bicycle** projects across borders (Interview Arts 2016). Besides that, the municipalities are responsible for the **urban spatial development** (Direction de l'information légale et administrative 2016b).

Municipalities larger than 100,000 inhabitants have to establish an **urban transport plan** (*Plan de Déplacements Urbains* (**PDU**)). The plan defines the organisation principles for passenger and freight transport within the city and includes all transport modes and **parking spaces**. It coordinates transport needs with environmental and urban planning concerns and shall ensure a broad transport accessibility and high safety. The plan also defines actions and their funding. These actions have to be respected by the **local urban plans** (*plans locaux d'urbanisme* (**PLU**)) (CERTU 2012, 1).

The PLUs regulate the **land-use** (Direction de l'information légale et administrative 2016b). They have to be in line with the future SRADDET objectives (Conseil économique, social et environnemental de la région Alsace Champagne-Ardenne Lorraine (CESER) 2015, 6). The **PADD** (*Projet d'aménagement et de développement durable*) is part of the PLU and explains the PLU's main orientations towards the

land-use development of the territory by relating to the municipalities' needs and (financial) means. The PADD can define broad aims concerning the transport development under certain conditions. The PADD is not directly binding for the citizens. It is developed before the PLU to mobilise the citizens for a preliminary discussion and participation process (CERTU 2013, 1f.).

The French municipalities manage the local roads and local public transport and thus can be involved in the development of cross-border transport.

### Public transport providers

The public **rail** transport in France is provided by the SNCF (*Societé nationale de chemins de fer français*). The regional TER trains belonging to the SNCF are called *Métrolor* in Lorraine. The *TGVs* are French high-speed trains which cross the Greater Region. They are also offered by the SNCF (Mobilitätsportal Großregion n.y.b). Three **regional bus** lines across borders have been offered by the Métrolor in 2015 (GIS-GR 2015c).

On the occasion of the establishment of the region Grand-Est, the public **bus** transport providers of the new region have grouped under the name **'transdev GRAND EST'** in 2015 (transdev GRAND EST n.y.). They offer a cross-border bus connection between the universities of Metz (FR) and Esch-sur Alzette (LUX) (transdev GRAND EST 2017a) and a cross-border bus from St. Avold to the German-French grammar school in Saarbrücken (transdev GRAND EST 2017b). Additionally, municipalities or inter-municipal structures offer **local bus** transport, e.g. Forbus (for Forbach), Citéline/Citélux (Thionville), LE MET (Metz), STAN (Nancy) and TGL (Longwy) (Mobilitätsportal Großregion n.y.a). Some of these also offer cross-border buses to the Saarland and to Luxembourg (GIS-GR 2015b). Besides the public transport services of the national, regional and municipal level private long distance bus companies complement the offer (Interview Bost 2016).

Thus, public cross-border transport is offered by the national, regional and local level. The départemental former services were centralised at regional level.

## Germany

The general description on the political system and functioning of the German transport system, including the distribution of competences, can be found in **chapter 6.3**. This section focuses on the specific situation in the German *Länder* Rhineland-Palatinate and Saarland (regional level) which are involved in the cooperation area of the Greater Region.

### Regional level of Rhineland-Palatinate

Rhineland Palatinate expands and maintains the **national roads** and **motorways** on behalf of the national level, based on the *Bundesverkehrswegeplan* (BVWP) and the national *Bedarfsplan*. In this context it makes proposals on which tracks should be integrated in the national BVWP. Rhineland-Palatinate is also responsible for the **regional road** transport development. The investments into the regional road infrastructure are defined in the operative so-called *Landesbauprogramm* which is developed together with the regional government budget every year respectively every two years. The programme contains a priority list of road expansion or new construction projects which is to be implemented within the duration of the budget (Interview Harmeling 2016). Thereby the regions can also propose the improvement of infrastructure tracks which lead to the national borders and are of relevance for cross-border transport.

The *Landesbetrieb Mobilität* (LBM) plans, maintains and establishes highways, national, regional and *Kreis* roads in Rhineland-Palatinate on behalf of the region. Additionally, it monitors the **air transport**, **inland waterways** and **bicycle paths** of the region (Landesbetrieb Mobilität Rheinland-Pfalz). Besides

that, it approves the renovation and establishment of the few **rail tracks** which are **not owned by the national level** (ibid.).

The DB Netz AG owns most rail infrastructures in Rhineland-Palatinate and is responsible for the maintenance and expansion of the tracks. It does so based on the *Rheinland-Pfalz-Takt* and the herein defined offer as well as on discussions with the *Zweckverbände* (Interview Harmeling 2016).

The strategic design of the transport mobility (*Mobilitätsgestaltung*) in Rhineland-Palatinate is defined by three main regional and subregional policy documents: the *Landesentwicklunsgprogramm*, the *Landesverkehrsprogramm* and the *Regionale Raumordnungspläne* (ibid.). They are described in the following.

The *Landesentwicklungsprogramm* of Rhineland-Palatinate (**LEP**) is the framework plan for the spatial development on the *Länder* level (Planungsgemeinschaft Westpfalz 2012, 1). It portrays **long distance** and **supraregional bus and rail service connections**. Additionally, it depicts the national and regional roads (Ministerium des Innern und für Sport Rheinland-Pfalz 2008, 149, 153) and defines aims and principles which concern the transport development (Interview Harmeling 2016).

The *Landesverkehrsprogramm* is developed by the regional government of Rhineland-Palatinate and defines the transport policy of the region (Ministerium für Wirtschaft, Verkehr, Landwirtschaft und Weinbau Rheinland-Pfalz 2000, 10f.). It determines the policy intentions of the regional government to expand its transport network and relates to all transport modes (Interview Harmeling 2016). It develops **services**, **infrastructures** and legal and operational actions for **freight and passenger** transport (Ministerium für Wirtschaft, Verkehr, Landwirtschaft und Weinbau Rheinland-Pfalz 2000). Additionally, broader aims are defined which shall be achieved through the transport development e.g. sustainability. The current programme dates from the year 2000 (ibid., 10f.). This document is currently developed further in the *Mobilitätskonsens 2021*. Until 2018 this public participation process shall develop future transport investment proposals for the regional government. It is expected that the future document will also contain a section concerning cross-border transport (SPD Rheinland-Pfalz, FDP Rheinland-Pfalz, and Bündnis 90/Die Grünen Rheinland-Pfalz 2016, 48; Interview Harmeling 2016).

Based on these strategic documents the *Landesbauprogramm* for the different transport modes are developed with a medium-term time horizon. These define the implementation of the strategies (Interview Harmeling 2016).

The concept *Zukunftskonzept Nahverkehr für Rheinland-Pfalz* involves Rhineland-Palatinate and the Saarland and describes aims for the future development of the regional railways (Ministerium für Wirtschaft, Verkehr, Landwirtschaft und Weinbau Rheinland-Pfalz 2014, 6).

Rhineland-Palatinate developed the further strategic documents *Nachhaltigkeitsstrategie* (sustainability strategy) (Ministerium für Wirtschaft, Verkehr, Landwirtschaft und Weinbau Rheinland-Pfalz n.y.a), *Innovationsstrategie* (strategy of innovation) as well as a climate protection concept (*Klimaschutzkonzept*) which relate to the transport development (Interview Harmeling 2016). In the current political **coalition agreement** of the regional government 2016-2021 aims for the cross-border transport development are defined. During the last (2007-2013) and current funding period (2014-2020) Rhineland-Palatinate has defined an **Operational Programmes** for the usage of the ERDF.

# Subregional level in Rhineland-Palatinate

The municipalities of Rhineland-Palatinate are responsible for fulfilling the governmental task of subregional planning but have delegated it to inter-municipal special purpose associations, so-called *Planungsgemeinschaften* (planning regions) (Interview Planungsgemeinschaft Region Trier 2016). Rhineland-Palatinate is divided in five subregional planning regions (see **Image 32**) which all develop

their own regional plan (*Regionaler Raumordnungsplan* (**RROP**)).<sup>54</sup>. The RROPs concretize the LEP within the respective planning regions. Additionally, they take into account municipal planning regulations (Planungsgemeinschaft Westpfalz 2012, 1).

The RROPs define the subregional and supralocal transport infrastructures (Planungsgemeinschaft Westpfalz 2012, 46; Interview Planungsgemeinschaft Region Trier 2016) based on technical contributions of the relevant authorities and adjust these aims with other spatially relevant objectives (Interview Clev and H. J. Fette 2016). Additionally, they are involved in the maintenance and expansion of roads at the regional borders (Interview Planungsgemeinschaft Region Trier 2016). Also the crossborder relations of these infrastructures are depicted which are relevant for the cross-border commuters (ibid.). These contents of the plans are binding for the municipalities (Interview Clev and H. J. Fette 2016). Additionally, they depict the large scale and supraregional roads (Ministerium des Innern und für Sport Rheinland-Pfalz 2008, 149, 153) which are predetermined by the regional level in the LEP and then adopted by the subregional plans. The subregional planning level is not involved in the financing of the subregional roads but can point to important infrastructure investments for spatial development (Interview Planungsgemeinschaft Region Trier 2016). In this context it is cooperated strongly with the respective Zweckverband that is responsible for the regional public transport connections (Interview Clev and H. J. Fette 2016). Additionally, the planning regions can propose priority projects for the BVWP (ibid.). The plans portray the subregional rail and bus connections as well as further bus connections (Ministerium des Innern und für Sport Rheinland-Pfalz 2008, 149).



#### Image 32: Subregional planning areas of Rhineland-Palatinate

Source: Ministerium des Innern und für Sport Rheinland-Pfalz B

In this study the RROPs of the planning region Trier of 2008, of the Westpfalz of 2011 and of Rhein-Neckar of 2014 are taken into account. The other regions do not share a direct border with the other member states of the Greater Region or do not belong to the INTERREG boundaries of the Greater Region. The planning region Trier also developed a strategy on the region's future development (*Zukunftsstrategie Region Trier 2025*) in 2008 which defines aims for the transport development and

<sup>&</sup>lt;sup>54</sup> One exception is the *Verband Region Rhein- Neckar* which has developed together with the bordering *Länder* Baden-Württemberg and Hessia a common plan which is called *Einheitlicher Regionalplan Rhein-Neckar*.

cooperation within the Greater Region. Furthermore, the planning region is involved in several transnational working groups in the field of transport and spatial planning of the Greater Region (Interview Planungsgemeinschaft Region Trier 2016). The draft of the new RROP of Trier relates to the cross-border region and defines requirements for the cross-border transport development (ibid.). The RROP of the *Westpfalz* also relates to the Greater Region and transport development (Interview Clev and H. J. Fette 2016). The *Einheitliche Regionalplan Region Rhein-Neckar* is special because it is established on the cross-border territory of three German *Länder* and thus has to coordinate the development across German internal borders. Nevertheless, it contains the same content structure like the other RROPs (Interview Trinemeier 2016). As the *Planungsregion Rhein-Neckar* is involved with its territory in the smaller cross-border region PAMINA it is less focused on further cross-border cooperation in the Greater Region. Besides that, the region is strongly interested in the TEN-T development of the Rhine-Alpine corridor which crosses the planning region but not the Greater Region (ibid.).

### Local level in Rhineland-Palatinate

Municipal **local public transport services** are developed by the municipalities themselves often in cooperation with intermunicipal transport associations (*Verkehrsverbünde*) (Interview Harmeling 2016). The *Kreise* and municipalities or intermunicipal transport associations design *Nahverkehrspläne*. In these the aims and framework conditions for the development of the transport services are defined. This includes, among others, a concrete definition of the schedules and tariffs as well as related infrastructures. The plan shall be in line with the aims of the respective *Zweckverband*. Furthermore, the regional planning associations and municipalities are to be involved in the establishment process of the plans (Land Rheinland-Pfalz 1995, para.8). The transport providers have to implement the aims of the *Nahverkehrspläne* and adapt their public transport offer (ibid., para.7).

The *Flächennutzungspläne* (**FNP**s) depict the supralocal transport surfaces and the main local communication routes besides the residual land uses of a municipal territory (Federal Republic of Germany 2007, para.5). The municipalities, respectively the *Kreise*, are competent in planning and building the **municipal roads**. If roads are expanded or newly established Rhineland-Palatinate co-funds the investments with ca. 65% and thereby has a certain possibility to steer the local road transport development (Interview Harmeling 2016).

Besides the national and regional funds which are available for the municipal level in Germany (**see chapter 6.2.1**), the Ministry of the Interior and Sports of Rhineland-Palatinate also offers funds from the *Investitionsstock* for particularly disadvantaged municipalities which cannot afford establishing decisive infrastructures on their own provided that no other funds are available (Ministerium des Innern und für Sport Rheinland-Pfalz A).

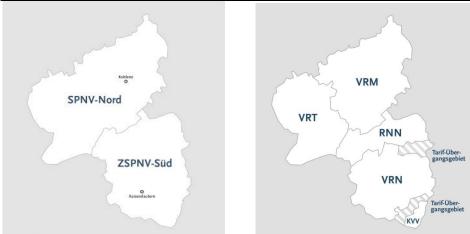
### Public transport providers in Rhineland-Palatinate

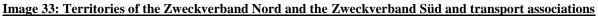
In Rhineland-Palatinate two Zweckverbände were established for the Northern and Southern part of the region (see Image 33) to plan the regional public passenger rail and bus offer and define targets in the so-called *Rheinland-Pfalz-Takt* together with the transport ministry of Rhineland-Palatinate on behalf of the *Kreise* and municipalities (Interview Harmeling 2016). The latter are originally responsible for the design and offer of these transport services (Land Rheinland-Pfalz 1995, para.6). Also the region Rhineland-Palatinate has a seat and voting right in these two Zweckverbände (Interview Harmeling 2016) as it has been responsible for the maintenance and expansion of regional public rail transport network infrastructure and the necessary vehicles since 1996 (Land Rheinland-Pfalz 1995, para.6; Ministerium für Wirtschaft, Verkehr, Landwirtschaft und Weinbau Rheinland-Pfalz 2000, 16). Based on the *Rheinland-Pfalz-Takt* - which defines concrete details on the itineraries and rolling material - the Zweckverbände put the service provision of territorial subspaces out for tender and install private

transport providers to offer the defined regional transport services. This is done approximately every 15 till 20 years (Interview Harmeling 2016). The contracts are assigned in a competition based tender process (Ministerium für Wirtschaft, Verkehr, Landwirtschaft und Weinbau Rheinland-Pfalz 2000, 16). The *Zweckverbände* also coordinate the provision of **cross-border services** with the neighbouring countries (Interview Schreiner 2016). Particularly the SPNV Nord is involved in cross-border rail connections to Luxembourg and indirectly to France because a short part of the rail track goes through the Saarland before entering France (Interview Geyer 2016). The *ZSPNV Süd* does not offer direct cross-border connections to others parts of the Greater Region. The existing connections first go through the Saarland (Interview Heilmann 2016).

Two different types of regional trains are offered in Rhineland-Palatinate: *Regionalbahn* (**RB**) and *Regionalexpress* (**RE**). Besides that, the fast and long distance trains **ICE** (*InterCity-Express*) and **IC** (*InterCity*) cross the territory (Mobilitätsportal Großregion n.y.b) that are managed and decided by the national DB AG (Interview Harmeling 2016). The **rail freight** transport is provided by the DB AG and private transport operators (ibid.).

The two *Zweckverbände* also define the transport connections of few **regional bus** lines with a special regional importance. These lines connect subregional centres (*Mittelzentren*) without rail connection. Often these buses replace former rail connections. The buses can be financed with the *Regionalisierungsmittel* (Interview Heilmann 2016). As stated above, the transport services are put out for tender and financed by the *SPNV Nord* and the *ZSPNV Süd* and then provided by private transport providers (Interview Harmeling 2016).





Source: Ministerium für Wirtschaft, Verkehr, Landwirtschaft und Weinbau Rheinland-Pfalz n.y.b

The territory of Rhineland-Palatinate is divided in five subregions. The public transport on each territory is organised by an **intermunicipal transport association** (*Verkehrsverbund*) (see **Image 33**). These *Verkehrsverbünde* coordinate the common tariff system of the public transport service providers and the timetables of the **regional rail and bus services**. The offer of the different subregions is coordinated with the regional rail transport managed by the two *Zweckverbände* (ibid.).

# Regional level of the Saarland

The responsibilities of the Saarland in the field of transport are the same as of Rhineland-Palatinate. However, the policy documents, the involved stakeholders at regional level, and the organisation of regional public transport vary.

The national level is responsible for the maintenance, expansion and construction of regional public **rail transport infrastructures** (Verkehrsmanagement-Gesellschaft Saar mbH n.y.). The Saarland is

responsible for expanding and maintaining the **national roads** and **motorways** that are defined in the national *Bedarfsplan* on behalf of the national level. In the current plan eight projects were defined as priority for the Saarland. These related actions are funded by the national level. Other investments in the national infrastructure than those defined in the Bedarfsplan cannot be implemented by the regions. Besides that, the region is responsible for the expansion and maintenance of **regional roads** and **carpooling parking spaces** based on regional funds (Interview Glöckner 2016). The road transport planning in the Saarland is based on road traffic prognoses, besides many factors, also the cross-border commuter flows within the Greater Region. In the case of road transport, solely the expansion of cross-border bridges is coordinated (ibid.). The *Landesstraßenbedarfsplan*, which is part of the *Haushaltsplan* of the Saarland, defines planning needs in the regional road infrastructures. Currently there is only one planned cross-border road establishment between Saarland and Lorraine. Projects that are included in the plan shall be planned by the *Landesbetrieb für Straßenbau* (LfS). However, the integration of a project in that plan does not imply a funding commitment. The plan is regularly updated for each new regional budget (*Landeshaushalt*) (ibid.).

The LfS fulfils the maintenance, planning, expansion and renovation of national and regional (*Länder*) roads on behalf of the regional *Ministerium für Wirtschaft*, *Arbeit*, *Energie und Verkehr* of the Saarland (Interview Chlench 2016; Ministerium für Wirtschaft, Arbeit, Energie und Verkehr n.y.). In the case of a closure of roads in the vicinity of the border because of construction works the neighbouring country is informed and the detour and road signposts are to be coordinated across borders (Interview Glöckner 2016). Besides that, the region defines transport necessities which should be integrated as a project into the national BVWP. The national level then decides if these projects will be included in the BVWP and prioritizes them (Interview Chlench 2016; Interview Glöckner 2016).

Additionally, there is a *Landesbauprogramm* which is not accessible for the public. It is based on an assessment of the existing regional road infrastructures which is done every five years and defines priorities for the renovation of these roads (Interview Glöckner 2016).

The *Verkehrsentwicklungsplan Öffentlicher Personennahverkehr* (VEP) (transport development plan) of the Saarland plans the **local public rail transport** and other public transport development. Based on this plan and the plans of the local level an annual investment plan (*Investitionsplan*) is established (Land Saarland 2016, para.5 and 7). The current VEP dates of 1997 and is outdated (Interview Ludwig 2016). In August 2016 it was decided to establish a new plan which shall be implemented by summer 2018 (BundesVerkehrsPortal 2016).

The regional planning document of the Saarland, the so-called *Landesentwicklungsplan* (LEP) consists of two parts, one focussing on the environment of 2004, the other on the settlement structure of 2006. Both parts are currently being updated (Interview Chlench 2015). The environmental part shall coordinate land use claims and the territorial distribution of different **land uses**. Therefore, it defines objectives for the spatial development which involve the environment, among other also on the transport infrastructure development. It shall protect territorially relevant network structures and tracks for **rail**, **road** and **waterways** (Ministerium für Umwelt Saarland 2004, 6). In the development process of the new LEP, the transport department is asked to participate and inform the spatial planning department about new transport objectives for the region. These objectives are assessed with existing opposing interests and then taken over by the LEP if of prior importance (Interview Chlench 2016; Interview Glöckner 2016). The *LEP* "*Siedlung*" (settlement) shall also coordinate land uses and their territorial distribution and lays down objectives concerning the settlement structure (Staatskanzlei Saarland 2006, 965). The maps of the new LEP of the Saarland will incorporate the boundaries of the Greater Region in their background and thereby depict the connection of the transport infrastructures of the Saarland to

the neighbouring countries. Besides that, there is no formal planning procedure which steers the crossborder transport development on the regional spatial planning level (Interview Chlench 2016).

The landscape programme (*Landschaftsprogramm*) defines the legal basis for environmental protection and landscape preservation in landscape planning. It represents the environmental sectoral contribution to spatial planning and aims at protecting nature, landscape and the natural resources (Ministerium für Umwelt Saarland 2009, 7). Thereby it also relates to transport and the diminution of its negative effects on the environment.

The *Frankreich-Strategie* was established in 2014 in order to promote the strengthening of the region's competence regarding France and the external visibility of their competence outside the Saarland (Staatskanzlei Saarland 2014, 3). Furthermore, cross-border cooperation with France and the Greater Region shall be expanded on political level but also in civil society and the bilingualism shall be fostered (ibid., 4).

In 2017 a strategy on sustainable development (*Nachhaltigkeitsstrategie für das Saarland*) was established for the Saarland. This strategy also refers to sustainable mobility and defines aims and indicators for the future development (Ministerium für Umwelt und Verbraucherschutz Saarland 2017).

The current *Strategie für Innovation und Technologie Saarland* (strategy on innovation and technology) of 2015 lays down the smart specialization strategy of the Saarland and focuses on fostering research and development. Also the research in transport innovations is to be strengthened (Staatskanzlei Saarland 2015, 9, 80).

In the *Haushaltsplan des Saarlandes 2016 und 2017* the financial investments of the region are defined. One chapter also deals with public transport and transport infrastructures. Besides that, the political **coalition agreements** of the regional government contain broad aims for the transport development of the Saarland (Interview Glöckner 2016).

During the last (2007-2013) and current funding period (2014-2020) the Saarland has defined **Operational Programmes** for the usage of the ERDF.

## Local level of the Saarland

The local public transport is managed individually by the *Kreise* and the regional authority of the city Saarbrücken. These establish *Nahverkehrspläne* which need to be adapted to the aims of the regional VEP (Interview Ludwig 2016) and the spatial planning documents. The *Nahverkehrspläne* depict the network of **public transport services** and define service standards as well as vehicle and infrastructure requirements. Furthermore, interfaces to the regional public transport offer are depicted. Particularly, plans are called to establish joint cross-border service connections with territorial authorities in France and Luxembourg (Land Saarland 2016, para.11). Additionally, *Investitionspläne* can be established at local level. Furthermore, the local level is responsible for the management of the **local roads** (Verkehrsmanagement-Gesellschaft Saar mbH n.y.) and **local bus transport** (Interview Ludwig 2016).

Like in Rhineland-Palatinate the **FNP**s depict the supralocal transport surfaces and the main local communication routes besides the residual land uses of a municipal territory (Federal Republic of Germany 2007, para.5)

## Public transport providers in the Saarland

The regional level is responsible for the **regional public rail** transport (Land Saarland 2016, para.5). The DB Regio provides the Saarland with the regional trains **RE** and **RB** like in Rhineland-Palatinate. Also long distance **ICE** trains stop in the Saarland (Mobilitätsportal Großregion n.y.b). The *Ministerium für Wirtschaft, Arbeit, Energie und Verkehr* is involved in the negotiations on the **cross-border rail connections**. The regional and cross-border **bus lines** are managed under the responsibility of the

*Kreise* and the *Regionalverband Saarbrücken*. Additionally, there is a **municipal cross-border bus connection** for which the city of Saarbrücken is responsible (Interview Ludwig 2016; Land Saarland 2016, para.5).

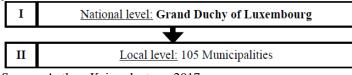
The local transport bodies have to coordinate the timetables and ticket prices of their **bus** service offer to ensure the maintenance and improvement of public transport. The *Zweckverband Personennahverkehr Saarland* (ZPS) was established to facilitate the coordination (Land Saarland 2016, para.5ff.) between the municipalities and *Kreise*. It shall ensure, among others, common tariffs and coordinated schedules (ibid., para.6). The ZPS is also responsible for developing cross-border transport services in cooperation with the transport providers of Lorraine and Luxembourg (Verkehrsmanagement-Gesellschaft Saar mbH n.y.). The ZPS is assisted by the *Verkehrsmanagement-Gesellschaft Saar mbH* (VGS) (ibid.).

The transport providers of the Saarland are organized in a common association – the *Verkehrsverbund* of the Saarland (saarVV) – which coordinates common tariffs, travel information and the travel schedules in the whole local public transport of the Saarland (Land Saarland 2016, para.7; SaarVV n.y.).

## Luxembourg

The Grand Duchy of Luxembourg is organized in a constitutional monarchy. Besides the administration at national level, the country consists of 105 municipalities (see **Figure 58**). The territorial unit canton does not have administrative powers (Gouvernement du Grand-Duché de Luxembourg n.y.b) and there are no other intermediate authority levels (Gouvernement du Grand-Duché de Luxembourg n.y.a).

## Figure 58 State hierarchy of Luxembourg



Source: Author, Kaiserslautern, 2017.

The municipalities autonomously administrate the tasks which are relevant for their territories while being controlled by the national level. At the local level municipal councils are established which are headed by a mayor (ibid.).

The transport development in Luxembourg is steered mainly by the sectoral transport policy. However, several relations exist between the transport policy and the different levels of spatial planning (Conseil de governement luxembourgeois 2003, 11). Also the Luxembourgish planning system consists of two main levels: the national *Landesplanung* and the local municipal planning (Chilla and Schulz 2011, 49ff.; Interview Besch and T. Juttel 2016). In addition, six planning regions can develop regional plans (Gouvernement du Grand-Duché de Luxembourg 2017).

## National level

The Luxembourgish Ministry of Sustainable Development and Infrastructure is responsible for spatial and transport planning. It covers the national as well as the international transport and cross-border transport. Additionally, as soon as the municipal level is transcended the national level becomes responsible. This concerns both transport **infrastructure** and **services**. In the field of **rail transport** the national provider CVL establishes and runs the transport on behalf of the state. Private **bus** companies are commissioned via public procurement to provide certain bus connections (Interview Besch and T. Juttel 2016). The national planning law was being amended in 2016. The national plans need to be adopted to the new legal basis once the law enters into force (Interview Vidal 2016).

The *Programme Directeur d'Aménagement du Territoire* (PDAT) of 2003 is the main national spatial planning instrument. It shall integrate the different spatially relevant sectoral policies and coordinate the

regional and local policies with a spatial orientation framework (Ministère de l'Intérieur 2003, 5). As it is already very old and in several cases outdated, the process of revision and the development of a new plan started in November 2016 (Interview Besch and T. Juttel 2016; Interview Vidal 2016).

The *Integratives Verkehrs- und Landesentwicklungskonzept für Luxembourg* (IVL) (integrated concept of transport and spatial development) of 2004 is based on the PDAT and shall operationalise, concretize and spatially define the aims of the PDAT leading to a sustainable spatial and transport development of the country while protecting the environment. It shall coordinate the sectoral, regional and municipal planning. The regional and municipal planning levels shall take the IVL into account when developing their planning strategies (Innenminsterium Luxemburg et al. 2004). Besides that, it is not binding. The development prognoses on which the concept is based were exceeded very fast and some projects are outdated so that it is said not to be up to date anymore (Interview Besch and T. Juttel 2016).

The *Stratégie Globale pour une Mobilité Durable* (MoDu) (comprehensive strategy for a sustainable mobility) of 2010 is the most relevant current national strategy on the transport mobility development of Luxembourg. It combines the fields of spatial planning, environment and transport and updates the projects described in the IVL. The document is not binding but defines the main transport aims of the country which will be implemented by the national level (ibid.). The cross-border dimension is taken into account (Interview Vidal 2016). It is complemented by the *Schéma Stratégique de Mobilité Transfronatlière* (SMOT) in relation to cross-border transport (Interview Besch and T. Juttel 2016). The *Plan Directeur Sectoriel Transports* (PST) shall ensure the implementation of its aims (Interview Vidal 2016).

The PDAT and IVL are to be concretised by four sectoral plans in the fields of landscape, economic zones, housing and transport (Ministère du Développement durable et des Infrastructures de Luxembourg 2015b). The *Plan Directeur Sectoriel Transports* (PST) is established by the planning and transport departments of the national Ministry of Sustainable Development and Infrastructures (Interview Vidal 2016) and shall particularly specify the aims of the IVL and put them into a spatial context. It shall define the future transport infrastructure development of the country (Département de l'aménagement du territoire du Gouvernement du Grand-Duché de Luxembourg 2012, 52). The PST lays down regulations which need to be adopted by the spatial plans of the municipalities once it is legally in place (Ministère du Développement durable et des Infrastructures de Luxembourg 2013a, 144f.). Additionally, the PST gives recommendations which need to be taken into account by the municipalities (Ministère du Développement durable et des Infrastructures de Luxembourg 2013b, 2). The PST is currently updated to a new law and was expected to be adopted in the middle of 2017 (Interview Vidal 2016). The new PST defines priorities and concrete transport corridors which are to be reserved for infrastructures (Interview Besch and T. Juttel 2016). The new PST will reduce the variety of topics and focus on the reservation of spaces for transport infrastructure in three different time horizons. The main projects are taken over from the old PST, only punctual amendments are planned. Some of these projects are relevant for cross-border transport such as the expansion of the rail connection between Luxembourg (LUX) and Thionville (FR). However, only the Luxembourgish territory is reserved. All the territories reserved by the PST are also defined in the MoDu. The PST is the implementation instrument for the strategy of the MoDu (Interview Besch and T. Juttel 2016; Interview Vidal 2016).

Besides that, a Luxembourgish **Railway Development Plan** (also *programmation pluriannuelle*) is developed and valid for a period of 10 years. It is updated every year and defines investment priorities (Interview Bissen 2016).

The *Plan national d'action pour la mobilité douce* (PANMD) of 2008 is a development strategy which aims at increasing the percentage of soft mobility, i.e. bicycle and pedestrian mobility in Luxembourg on 25%. The policy defines an action programme to foster soft mobility (Ministère des Transports de Luxembourg, Ministère des Travaux Publics de Luxembourg, and Ministère de l'Intèrieur et de l'Aménagement du Territoire de Luxembourg 2008, 2).

The national plan for a sustainable development (*Plan National du Développement Durable* (**PNDD**)) of 2010 was mainly developed by the environmental department of the Ministry of the Sustainable Development and Infrastructure. The relations to the transport development focus on the aims of the MoDu (Interview Besch and T. Juttel 2016). Among others, it aims at minimizing  $CO_2$  emissions (Interview Vidal 2016).

In 2012 a **regional and cross-border P&R concept** was developed based on a study of the status quo with the aim to shift individual motorized transport flows as soon as possible to public transport. P&R infrastructures are to be established in the vicinity of the national borders of Luxembourg and its neighbouring territories (Interview Vidal 2016, Schroeder & Associés 2012, 2012, 29f.). The SMOTs further concretize the location of the P&R infrastructures in the border area (Interview Vidal 2016).

*The Paquet Climat* (2011) contains a bundle of short-term priority measures for the national action plan, the strategy on the adaption for climate change and a summary on the preparation of the climate pact with the Luxembourgish municipalities (Partenariat pour l'environnement et le climat 2011, 5f.). It also refers to actions in the field of transport. Besides that, Luxembourg participates in the European initiative *European Energy Award*. It promotes the participation of municipalities in this imitative and develops contracts with them to financially support their projects (Ministère du Développement durable et des Infrastructures de Luxembourg 2015a). Among others, it defines actions in the mobility sector which shall reduce climate change.

Further relevant Luxembourgish national documents in relation to the EU are the National Reform Programme of 2016 (National plan for the smart, sustainable and inclusive growth –Luxembourg 2020), the *Programme Operationnel FEDER 2014-2020 Luxembourg* of 2014, the *Accord de partenariat Luxembourg* of 2014, the *Programme Opérationnel FEDER* 2007-2013 and the *Cadre de reference stratégique national 2007-2013* of 2007.

## Regional level

The Luxembourgish law allows for the establishment of **regional plans** (*plan directeur régional*). However, it is not mandatory. Six potential planning regions were defined which can develop such a plan in cooperation with the municipal and national level in order to organize the regional territorial development, including the determination of the location of infrastructures, in a more structured way. After their establishment the regional plans shall become regulatory orientation frameworks for the municipal plans and urban development. So far, no plans have been developed. However, some first initiatives started in two planning regions (Gouvernement du Grand-Duché de Luxembourg 2017).

## Inter-municipal level

**Conventions** can be established between the state and an incorporation of municipalities to develop integrated and informal planning strategies. The intermunicipal cooperation shall develop sustainable development strategies tailored to the common challenges and potentials of the concerned territories (Ministère du Développement durable et des Infrastructures de Luxembourg 2014). This planning option was introduced to increase the cooperation between the municipalities and to contribute to a coordinated development. In these conventions also, the transport development can be coordinated. So far, however, often challenges were experienced in the cooperation because the municipalities are said to be only

interested when an added value can be reached. If this is not the case they are said to have remained passive and let the state implement the projects (Interview Besch and T. Juttel 2016).

## Local level: municipalities

The municipalities are competent in the maintenance and construction of **local roads**, in their financing (ibid.) and in **spatial planning**. Furthermore, they can organize their own **urban public transport services** (Verkéiersverbond Luxemburg n.y.).

The *Plan d'aménagement general* (PAG), which is established at local level, contains the whole territory of a municipality. It regulates the land use. Thus, it defines purposes for different territorial zones. The PAGs should promote **pedestrian** and **cycle mobility** and offer the relevant infrastructure (PST: doc. techn. 140). Additionally, the municipalities should take into account **public transport** as well as a **parking space** management in their PAGs (Département de l'aménagement du territoire du Gouvernement du Grand-Duché de Luxembourg 2012, 56; Innenminsterium Luxemburg et al. 2004, 36). As soon as public transport connections between two municipalities – i.e. also across-borders - are to be established the national level becomes responsible if the municipalities do not have an exception permit (Interview Besch and T. Juttel 2016).

The *plans d'aménagement particuliers* (**PAP**) are established for parts of a municipality and concretize the regulations of the PAG. Particularly in the prioritized three development poles of Luxembourg the municipal and urban development plans shall be developed in combination with **transport development plans** (Innenminsterium Luxemburg et al. 2004, 119).

Further instruments at local level are the *concept de mobilité* which is a preparatory study of the PAG and the *plan de déplacement local/regional* which shall regulate the organisation of **public transport services**. The *concept de mobilité* can be implemented by the PAG and PAP as well as urban projects being part of the *stratégie de développement urbain*, an urban development strategy (Ministère du Développement durable et des Infrastructures de Luxembourg 2013a, 149).

Besides that, in Kirchberg and Belval private development agencies establish the **transport infrastructure** and deliver it to the national level once completed (Interview Besch and T. Juttel 2016).

# Public transport providers in Luxembourg

The *Verkéiersverbond* is responsible for the information and communication of the public transport and EcoMobility offer in Luxembourg. It offers a customer support and advices private companies in their mobility management. Additionally, it **analyses** the traffic behaviour and suggests transport providers and municipalities measures of improvement for the transport offer (Interview Dostert 2016). Furthermore, it coordinates the timetables and service lines (Ministère du Développement durable et des Infrastructures de Luxembourg 2015c).

Besides this central authority, four different transport providers offer the main public transport in Luxembourg. The **CVL** (*Chemins de fer luxembourgeois*) is the national **railway** company of Luxembourg but also offers some **bus** connections which were earlier linked by train (Schroeder & Associés 2012, 8). Every year the Luxembourgish Ministry for Sustainable Development and Infrastructures defines the general aims for the rail development including the number of rail connections to be offered. The CVL and the rail companies of the neighbouring countries negotiate the implementation of these aims (Interview Bissen 2016).

Besides that, the *Régime Général des Transports Routiers* (**RGTR**) coordinates a system of private **bus** enterprises and offers 300 bus lines on behalf of the Luxembourgish Ministry for Sustainable Development and Infrastructures (Schroeder & Associés 2012). Additionally, French and German bus companies are employed in the cross-border transport. The latter ministry develops the cross-border bus

lines and has the approval power for them. The Regio-Zone tickets across borders are to be offered online of 2017 on (Interview Kies 2016). The *Tramways Intercommunaux dans le Canton d'Esch/Alzette* (**TICE**) coordinates 15 bus lines in the South of Luxembourg. Besides that, the *Autobus de la Ville de Luxembourg* (**AVL**) provides public bus transport in Luxembourg-City and consists of 25 lines. In 2017 this offer was to be complemented by a tram network (Schroeder & Associés 2012, 8).

Besides Luxembourg-City, some other Luxembourgish municipalities offer an inter-urban 'city-bus' (Verkéiersverbond Luxemburg n.y.).

The comparison of the competences of the local and national level in Luxembourg shows that in Luxembourg the national level is the main competent stakeholder in terms of cross-border transport.

# Comparison of the transport planning competences in the four countries

As can be seen in **Table 38** and **Table 39** the competences of the different administrative levels of the member states in the field of transport infrastructures and services vary. At the local level, cooperation seems to be easiest as the municipalities are competent in the same demarcated fields in all countries. However, these competences are sometimes restricted to the inner urban transport and not existent for inter-municipal transport across borders like in the case of Luxembourg.

At national level all member states are competent for high speed railroad infrastructures, regional rail roads and the TEN-T. However, in some countries they are not the sole level competent. Sometimes the responsibility is shared by several administrative levels. In Belgium all other transport infrastructure related fields than the named ones are decentralised on the lower levels. The Luxembourgish national level has more competences than the other three countries because the state system only consists of a national and a municipal level. All infrastructures that are not municipal are steered at national level.

	Belgium	France	Germany	Luxembourg
	high speed railroads	high speed railroads	high speed railroads	high speed railroads
	regional railroads	regional railroads	regional railroads	regional railroads
	TEN-T	TEN-T	TEN-T	TEN-T
		inland waterways	inland waterways	inland waterways
national		national roads	national roads	national roads
				regional roads
				ports
				soft mobility
	airport (Bruxelles)	airports		airports
	Airports	airports	airports	
	national roads		national roads	
			regional roads	
regional			high speed railroads	
regional			regional railroads	
	inland waterways		inland waterways	
		ports	ports	
			soft mobility	
		subregional roads	subregional roads	
			high speed railroads*	
subregional			regional railroads*	
subregional	national roads		national roads*	
			regional roads*	
	inland waterways			
inter-municipal		local roads		
local	local roads	local roads	local roads	local roads
10041	soft mobility	soft mobility	soft mobility	soft mobility
* only proposals				

Table 38: Distribution of competences in the field of transport infrastructures

\* only proposals

Source: Author, Kaiserslautern, 2017.

Compared to the other countries the German regional and subregional level is very much involved in regional and national infrastructure development. Both levels can propose important infrastructure investments. The regional level fulfils the implementation for the national level. However, the final decision about the implementation is taken by the national level. The development of regional roads is steered mainly by the regional level.

France is the only country in which the inter-municipal level is involved in infrastructure development.

				<b>Y</b> 1
	Belgium	France Germany		Luxembourg
	high speed trains	high speed trains	high speed trains	high speed trains
national	regional trains			regional trains
				regional buses
	regional buses	regional buses	regional buses	
regional	regional trains	regional trains	regional trains	
regional	high speed trains			
	local buses	inter-municipal buses		
subregional		school transport for		
subregional		handicapped persons		
			local buses	
inter-municipal			regional buses	
			regional trains	
local		local buses	local buses	local buses
	urban transport	urban transport	urban transport	urban transport

Table 39: Distribution of competences in the field of transport services

Source: Author, Kaiserslautern, 2017.

The high-speed train services are all steered at the national level. In Belgium also the regional level can propose priority projects. The decision, however, is taken at the national level. The regional public transport offer is mainly steered at the regional level with the exception of Luxembourg. In Germany the offer is steered in a cooperation of the regional and the inter-municipal level. However, the intermunicipal level has the original competence. In France and Luxembourg local buses are organized by the municipalities themselves. In Germany this is done usually on inter-municipal level and in Belgium the local bus transport is organized even at regional level.

The differences can complicate the cooperation across borders. When a cross-border rail connection shall be improved the French regions can invest in rail tracks. The German regions, however, can only invest in rail services and vehicles but not in infrastructures (Interview Ludwig 2016). In this case the German national level or the DB needed to be involved.

Besides that, also the financial support mechanisms and character and aims of the policy documents, i.e. the transport planning tools, as well as their mutual influence varyAs the aim of this dissertation is to find out more about cross-border transport, the objectives towards cross-border transport of the presented domestic policy documents are analysed in the next chapter. In addition, cross-border policy documents which were developed in cooperation between the four member states are analysed. Additionally, it is to be found out if the domestic policies and planning cultures have been path dependent and have hindered their assimilation to EU policy objectives and across borders and thereby hampered an efficient cross-border transport in the Greater Region.

# 6.3.3 Contribution of domestic and cross-border policy transport documents to cross-border transport and reference to EU policy objectives

This section illustrates the domestic and cross-border policy transport document's reference to crossborder transport by analysing the policies' objectives and comparing them with the EU policies' transport-related objectives addressed in chapter 4. The findings are used in the following section to

assess the influence of the EU policies on the domestic and cross-border policies. More information on the methodological approach of the document analysis can be found in **chapter 1.3**.

The domestic policies are presented in the countries' alphabetical order. After that the cross-border policies are presented. Then the domestic and cross-border policies' influence on cross-border transport is compared. The section concludes with a description of the perceived challenges in the development of cross-border transport policies and the barriers which minimize the influence of the domestic and cross-border policies on cross-border transport in practice.

# Belgium

In total 31 Belgian policies, published between 1999 and 2017, were analysed (see **Table 40**). The majority of the Belgian documents are transport policies, followed by development strategies, EU related documents and spatial planning documents. The distribution of types on the different administrative levels varies. For instance, no spatial planning policies exist at the national level (see **Figure 59**).

Admin. level	Name of the policy document	CB- transport
National	Plan Pluriannuel d'Investissement (PPI) (2001-2012)	yes
level	Cadre de référence stratégique national de la Belgique (CSRN) 2007-2013 (2007)	yes
	Plan National Climat de la Belgique 2009-2012 (PNC) (2008)	yes
	Plan d'Action national en matière d'énergies renouvelables (2010)	yes
	Accord de Partenariat pour la Belgique (2014) (Partnership Agreement Belgium)	
	Plan de Transport SNCB (2014)	yes
	Contrat de gestion 2008-2015 SNCB (2014)	yes
	Contrat de gestion 2008-2015 INFRABEL (2014)	yes
	National Reform Programme 2016 (2016)	yes
	Plan de Transport SNCB 2017	?
	Projet de plan pluriannuel d'investissements ferroviaires 2013-2025 SNCB (PPI) (2017)	yes
Wallonia	Schéma de developpement de l'Espace Régional SDER (1999)	yes
	Programme opérationnel « Compétitivité régionale et emploi » WALLONIE – Intervention FEDER 2007-2013 (2007/2015)	yes
	Diagnostic territorial de la Wallonie (2011)	yes
	Projet de Plan de développement de la desserte ferroviaire en Wallonie pour la période 2013-2025 (2012)	yes
	Schéma de developpement de l'Espace Régional SDER (2013) (has not been implemented)	yes
	Déclaration de politique régionale wallonne 2014-2019: "Oser, Innover, Rassembler" (2014)	yes
	La Stratégie wallonne pour une croissance intelligente durable et inclusive en partenariat avec l'Union Européenne Programme opérationnel FEDER (2014)	
	Plan wallon d'aides aux modes de transport alternatifs à la route 2014-2020 Plan Marshall 4.0 (2015)	
	Revitalisation du fret ferroviaire en Wallonie (2015)	yes
	Schéma Régional de Mobilité de la Wallonie (SRM) (2017)	yes

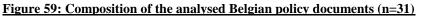
Table 40: Belgian domestic policy documents analysed<sup>55</sup>

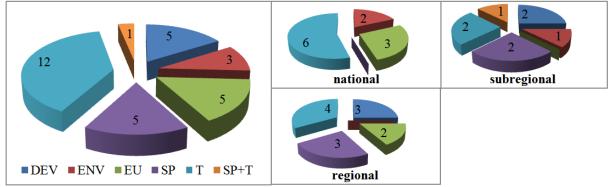
<sup>&</sup>lt;sup>55</sup> The *Plan Pluriannuel d'Investissement* (2001-2012), the *Plan de Transport SNCB* (2014), the *Plan Pluriannuel d'Investissement* (PPI) (2013-2025) (2017) and the *Plan de transport de la SNCB* (2017) could not be accessed. Therefore the analysis of the first three documents is based on an analytical report of the Walloon government. The fourth document's description is based on information on the internet of the SNCB. Thus, some aspects which were not refered to in these reports might be missing.

German Speaking Community	Regionales Entwicklungskonzept der deutschsprachigen Gemeinschaft (2009/2011/2015)	yes
Province de	Livre blanc de la mobilité en province de Luxembourg (2010)	yes
Luxembourg	(Elaboration d'une) Stratégie de développement de l'Espace Luxembourgeois (SDEL) (2012)	yes
	Déclaration de politique générale de législature 2012-2018 Province de Luxembourg (2012)	yes
	Stratégie territoriale intégrée (STI) pour la province de Luxembourg (2015)	yes
	Plan régional de mobilité durable (PRMD) – Opinion of the Province of Luxembourg (2015)	yes
Province de	Déclaration de politique générale 2012-2018 Province de Liège (2012)	
Liège	Réalisation d'un plan d'actions territorial en faveur de l'Énergie durable pour la province de Liège (2015)	
	Schéma de développement territorial and plan provincial de mobilité (in preparation)	yes

Source: Author, Kaiserslautern, 2017.

71% of all Belgian policy documents related to cross-border transport, however, only 42% mentioned the TEN-T. The regional policies had the highest relation to the TEN-T (58%) whereas cross-border transport was mentioned most by the subregional (75%) and national policies (73%). The subregional policy documents of the province of Luxembourg refer to cross-border transport much more than the three analysed documents of the province of Liège. The SDEL and PRMD define very concrete aims in this context. However, only 25% of the subregional documents mention the TEN-T. The policy agreements with the EU that were created at national and regional level rarely referred to cross-border transport but more frequently to the TEN-T. The **degree of detail of the objectives** in terms of cross-border transport and the TEN-T varies between the documents.





Source: Author, Kaiserslautern, 2017.

In the following, the relations of three selected Belgian domestic policies to cross-border transport are presented in detail. These were developed on different administrative levels and belong to different policy fields: the *Contrat de gestion 2008-2015 SNCB*, a national Belgian transport policy document, the *Déclaration de politique régionale wallonne 2014-2019: "Oser, Innover, Rassembler"*, a regional development policy, and the *Stratégie de développement de l'Espace Luxembourgeois (SDEL)*, a spatial planning policy. The other policy documents' relation to cross-border transport can be found in the appendix.

According to the *Contrat de gestion 2008-2015 SNCB* (2014) the SNCB is responsible for the crossborder passenger transport to the predefined train stations in the neighbouring countries Aachen (DE), Lille (FR), Luxembourg, Troisvierges, Rodange (LUX) and Maastricht (NE). The SNCB negotiates with the neighbouring transport providers the ticketing prices and shall consider establishing work- and education tickets to promote the usage of the train when crossing the border for these purposes (Etat

Belge 2014b, art. 5 and 24). The cross-border rail service connections between Virton (BE) and Rodange (LUX) as well as Arlon (BE) and Rodange (LUX) are secured since 2008 until 2018 based on a contract with Luxembourg. The connections are to be further developed and promoted (ibid., art. 25).

According to the political declaration of Wallonia for the period of 2014 until 2019 (*Déclaration de politique régionale wallonne 2014-2019: "Oser, Innover, Rassembler"*) the rail connection between Bruxelles and Luxembourg shall be modernized. The region wants to develop a strategy on transport and logistics which is to be coordinated with the neighbouring cross-border regions containing concrete actions. The Western waterway network of Wallonia shall be connected to the Seine-Escaut network. Cross-border projects shall be promoted to improve the attractiveness and territorial competitiveness of the region. Wallonia shall increase its involvement in the Greater Region, particularly while its presidency in the Summit of the Greater Region in 2015 (Gouvernement Wallon 2014a, 66ff;111).

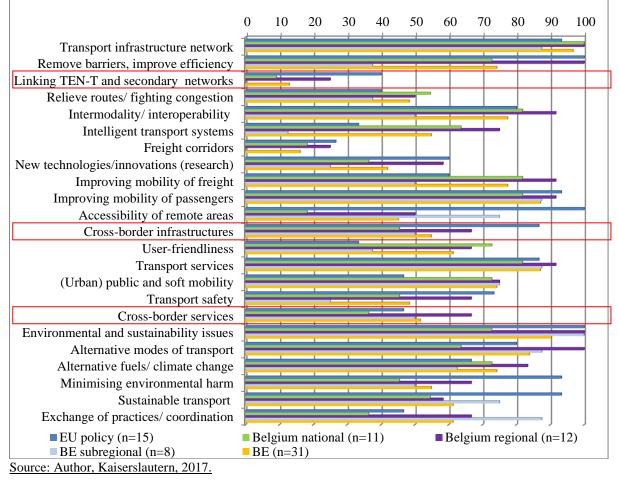
The *stratégie de développement de l'Espace Luxembourgeois (SDEL)* of 2012, promotes the benefits of the proximity to the country Luxembourg also in terms of the good accessibility of high speed train connections. It shall be made more use of this advantage (Réseaulux 2015, 39). The position of the province in the Greater Region shall be strengthened because of the shared borders with France and Luxembourg and the strong relevance of Luxembourg for the province (ibid., 22f.). The province shall be connected with the neighbouring centres across the border (ibid., 64). It also shall be made use of the European high speed rail transport axes by developing a high speed rail stop in Libramont (BE) (ibid., 50f.). Besides that, it is also to be connected to the European road network and other important transport modes infrastructures (ibid., 64). Furthermore, cross-border challenges and potentials such as differences in passenger and freight transport shall be analysed. Therefore working groups are to be established involving members from Lorraine and Luxembourg (ibid., 49). Cross-border public transport ticket prices shall be made more attractive to reduce the congestions to Luxembourg particularly in the peak hours (ibid., 64).

When analysing the **policies' transport-related objectives** (see **Figure 60**) the improvement of crossborder infrastructures and services, for instance, is strongly supported by the regional documents. Even the subregional documents ascribe these objectives a higher relevance than the national documents. Thus, although the national documents mention cross-border transport very often (80%), the regional level seems to contribute stronger to its improvement. Similar to the above described tendency, the linkage of the TEN-T and secondary networks is more relevant in the regional policy documents (25%) than the national documents (9%). The TEN-T are also mentioned more often in the regional policies. At national level the TEN-T are relevant in some documents, however, it is not often aimed at linking them to the transport infrastructures of the lower subnational levels. Instead they are treated as transit routes only, without bringing benefit to the areas which are crossed but not connected to a node. This might be due to the reason that the Belgian national level is not responsible for spatial and transport planning in general but only national rail transport. The residual competences are owned by the Belgian regions. None of the subregional policies aims at developing links of the subregional infrastructures with the TEN-T. A reason might be the missing competence in the field of transport. Still as there are policies which relate to transport these could argue for a better connection.

The national policy documents either relate to cross-border services or to infrastructures. None of them relates to both at the same time. This shows that the national Belgian policy documents have very narrow focuses. A comprehensive policy on transport in general that includes services and infrastructures does not exist. At regional level, however, all documents which refer to cross-border transport refer to cross-border transport services <u>and</u> infrastructures (67%). This is probably because of the larger competences of the regional level for the residual modes of transport.

When comparing the relevance of the cross-border transport aims of the Belgian policies with the **relevance in the EU policies** (see **Figure 60** and **Table 41**), the highest accordance in the connection of secondary and TEN-T networks as well as cross-border transport infrastructures is reached by the regional policies whereas the highest accordance in the improvement of cross-border services is reached by the subregional policy documents. However, the regional policies support the enhancement of cross-border services much more than the average EU policies and therefore also deviate from the EU policies' relevance. This might be an evidence for the enlargement of the relevance through a strong regional motivation in the field of cross-border transport services are promoted less. Therefore cross-border transport services seem to be more relevant for the lower administrative levels. Additionally, the lower support at national level does not lead to a reduction of relevance on the lower administrative levels. Thus, no top-down influence at domestic level can be detected in this case.

### Figure 60: Contribution of Belgian policy documents to EU transport-related objectives



Policy level	TEN-T and secondary networks	CB infrastructure	CB services	All categories
Belgium national (n=11)	30.9	41.2	10.3	24.1
Wallonie regional (n=12)	15.0	20.0	20.0	17.5
BE subregional (n=8)	40.0	36.7	3.3	21.7
BE (n=31)	27.1	31.8	4.9	18.3

Source: Author, Kaiserslautern, 2017.

The **linkage of TEN-T and secondary networks** is supported much less by the national policies than by the EU, this might be a reason for the also reduced relevance in the regional documents compared to

the European relevance. Still the regional level policies show an increased relevance compared to the national level. The subregional level, however, seems not to be influenced by the EU, national or regional level because this objective is not supported at all (see **Figure 60**).

When looking at the objective of improving **cross-border infrastructures**, again the national Belgian policies attribute a lower relevance to this objective than the EU policies. The regional level promotes this objective more than the national and subregional level.

The **national level** supports all three objectives to a lower degree than the EU and the regional policies. However, it does not prevent the regional level from supporting the EU objectives and cross-border transport. The **regional** Belgian level seems to be very supportive of issues which concern cross-border transport. A stakeholder from the subregional level, however, criticized that the regional level would not efficiently support actions to improve cross-border transport besides the SMOT<sup>56</sup>. As the regional administration of Wallonia would be located too far away from the national border and the cross-border transport challenges, the pressure would be too low although the province of Luxembourg has faced transport challenges since several years (Interview Demortier 2016).

The relevance of the three cross-border transport-related objectives is reduced in the **subregional policies**. With the exception of the TEN-T related aim the subregional level also aims at improving cross-border transport - even a little stronger than the national level. Because of a missing formal competence, however, the effects of the subregional policies of the province of Luxembourg are evaluated not to have been high (ibid.). Also, the influence of the province of Liège's policies on cross-border transport is said to be rather low. Concrete cross-border projects in which the province is involved are said to have a higher impact (Interview Antoine 2016).

In the case of Belgium, the **EU policies** seem to **bypass the national administrative level** to a certain degree and directly influence the regional level. However, the low national support might also be explained with the distribution of transport competences and needs of the different administrative levels. Therefore, in the following, the relevance of the other transport-related EU objectives on the different administrative levels is to be investigated and compared to these findings.

According to the numbers in **Table 41** the regional level shows the highest similarity with the EU policies (17.5%) when all categories of **Figure 60** are taken into account. The national policies differ more from the EU policies. This underlines the tendency explored above. According to Hilligsmann, the regional policies of the Belgian German Speaking Community are not influenced much by the national level because the community has demarcated competences (Interview Hilligsmann 2016). Without having a formal competence in the field of transport the Germans Speaking Community (GSC) is said to try to contribute to innovative transport solutions. It has also lobbied the regional and national level to influence the ministers responsible for transport development to improve public cross-border transport. Because of missing competences it cannot implement own transport projects itself but supports them financially (ibid.).

Compared to the average similarity of the Belgian policies to the EU policies (18.3% deviation), there is a lower deviation in the contribution of the Belgian policies to cross-border services (4.9%) (see **Table 41**). However, the Belgian policies differ on average stronger in the objectives 'linkage of TEN-T and secondary networks' (27.1%) as well as the 'improvement of cross-border transport infrastructures' (31.8%).

When looking at the residual **transport-related policy objectives** more in detail (**Figure 60**) it can be seen that several infrastructure related objectives, in the mobility of freight and passengers, as well as

<sup>&</sup>lt;sup>56</sup> The SMOT (*Schéma stratégique de mobilité transfrontalière*) is a cross-border transport policy which is described later in this section.

transport services are more relevant at national level than at EU level. In these cases, also the regional policies consider it more relevant. Thus, the national level seems to have a certain influence on the lower levels. Besides that, exceptions from the national Belgian policies' focus on the transport infrastructure network exist like the objectives of removing barriers, of the linkage of TEN-T and secondary networks and of increasing the capacity and efficiency. These objectives are less frequently aimed at than at EU level. Also in other objectives, such as transport-related sustainable and environmental issues, the national level policies ascribe a lower importance than the EU level. Another example is the improvement of the accessibility of remote regions. It is an important objective of the EU policies but seems not to be an important issue at Belgian national level. However, this category grows in relevance on the lower Belgian levels. In these cases, the regional level shows a higher interest and is more similar to the EU policies. This shows that the influence of the Belgian national level. Additionally, as stated above, the relevance of the EU objectives are directly taken over by the regional level. Additionally, as

To conclude, the analysis of all transport-related policy objectives acknowledges the perception made in the analysis of the cross-border transport-related objectives. The EU policies seem to have a large influence on the Belgian regional level (Wallonia and German Speaking Community). In several cases the EU policies bypass the national administrative level to a certain degree and directly influence the regional level. Besides that, the Belgian national policies vary in several categories from the EU objectives. The regional level policies always support objectives promoted by the national level or the EU policies. Therefore, also the national level has a certain influence. The subregional policies' dependence from the upper levels varies, several objectives are not relevant at such a low level, others become more relevant. They do not show a stable relation to a special level. Therefore, no clear statements on the influence of the EU level at the subregional level can be made.

The highest percentage (58%) of policies which defined concrete **cross-border projects** was reached by the regional level documents. Most of them belonged to the fields of spatial planning and transport planning policy. 45% of the national policies defined concrete projects. All of these national projects except one - focused on rail transport investments as this is a national competence. A very important project which was frequently named by several policies is the enhancement of the rail connection between Bruxelles (BE) and Luxembourg (LUX). This project was also mentioned frequently at regional level, linking Namur and Arlon (BE). Compared to the national policies more concrete road infrastructure projects were named at regional level. Only 38% of the subregional documents defined concrete cross-border projects. Two of them relate to an improvement of the rail connection between the logistical terminal in Athus and Mont St. Martin as well as Luxembourg. This project was already promoted at regional level by two policies. These might have influenced the provincial level. However, the other formulated projects have not been mentioned at higher level and seem to have a more local relevance.

The **policy agreements with the EU** created at national and regional level did not define concrete transport projects but had a more general perspective. In total 48% of the Belgian documents defined concrete projects. Only one project defined by the national level policies was adopted by the regional level policy documents. One regional project was adopted by the subregional policy documents. Here no strong influence seems to exist - respectively the relevance of the projects strongly depends on local needs. A list of the concrete projects promoted in the policy documents can be found in the **appendix**.

Based on interview statements and the description of the planning systems in **chapter 6.3.2** the coordination of the cross-border transport system in Belgium seems to be challenged by the **dispersion of competences** on different administrative levels. The rail and TEN-T development is centrally steered

by the national level – which has only competences in the transport modes rail and waterways. Rail transport and the TEN-T, however, are of relevance also for the lower levels which seem to have a stronger relation to cross-border transport and its challenges. Wallonia is part of two large cross-border regions and seems to concentrate its focus stronger on the cross-border cooperation with the Euregio Maas-Rhein than the Greater Region. The province of Luxembourg, however, strongly lobbies for a better public transport offer to Luxembourg and voluntarily develops own concepts to improve the status quo. In Belgium the focus is often not laid on cross-border transport projects but internal priorities because of tight budgets. The lower administrative levels are disappointed from the missing national or regional support for cross-border projects and call for a stronger EU influence to increase the cross-border transport coordination and harmonization. The main cooperation relations of Belgium towards the Greater Region exist to Luxembourg. Some initiatives seem to have been developed also in cooperation with Rhineland-Palatinate and Lorraine.

Stakeholders from Luxembourg consider the positioning of Wallonia towards public transport not as positive as in the other countries. This is because the public rail transport is steered by the Belgian national level which does not prioritize transport connections to Luxembourg but Bruxelles.

## France

In total 21 French policy documents were analysed. These were published between 2005 and 2016 (see **Table 42**). The majority of these French policy documents are spatial planning and transport policies, followed by development strategies. The distribution of these documents on the different administrative levels, however, varies (see **Figure 61**). At intermunicipal level, for instance, solely spatial planning policies exist that refer to transport development. Furthermore, at French regional level only one spatial and transport development document was published. The SRADDET – mentioned in **chapter 6.3.2** - has not been established yet and thus cannot be analysed. However, the establishment process foresees an involvement of the neighbouring countries. As the concept will contain transport issues, Schelkmann expects that it will have a higher influence on cross-border transport than the existing older documents of Rhineland-Palatinate (Interview Schelkmann 2016).

Admin. level	Name of the policy document	CB- transport		
National level	DTA (Directive territoriale d'aménagement) des Bassins miniers Nord- Lorrains (2005)			
	Cadre de Référence Stratégique National (2007-2013) (2007)	yes		
	Schéma national des infrastructures de transport (SNIT) (2011)	yes		
	Rapport "Mobilité 21 – Pour un schéma national de mobilité durable" (2013)	yes		
	Partnership Agreement France (2014)			
	Programme National de Réforme (2015)			
	Contrat de plan État – Région (CPER) en Lorraine 2015-2020 (2015)	yes		
Lorraine/	Lorraine 2020 (2012)	yes		
Grand-Est	Schéma Régional Climat Air Énergie de Lorraine (SRCAE) (2012)	yes		
Grand-LSt	Pacte Lorraine 2014-2016 (2013)	yes		
	Schéma Régional de Cohérence Ecologique de Lorraine (SRCE) (2014)			
	Aménagement du Territoire, Transports, Mobilité (2015)	yes		
	Stratégie Régionale d'Innovation de la Région Lorraine (SRI-SI) (2015)			
Moselle	Plan Départemental de l'Habitat de la Moselle 2012-2017 (2012)	yes		
Meuse	Schema des transports conférence de presse du 3 septembre 2009 (2009)			
Meurthe et	Transport et routes – Se déplacer, se rapprocher (2008)			
Moselle	(Diagnostic préalable à l'élaboration du) Schéma Départemental d'Amélioration de l'Accessibilité des Services au Public (SDAASP) (2016)	yes		

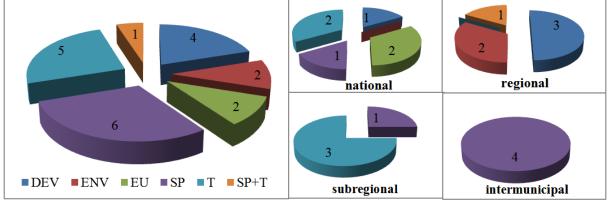
Table 42: Analy	vsed French	policy d	ocuments

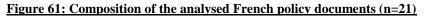
Intermunicipal	SCoT Nord 54/ SCoT Nord Meurthe-et-Mosellan (2015)	yes
level	SCoT de l'Agglomeration Thionvilloise SCoTAT (2014)	yes
	SCoT de l'Arrondissement de Sarreguemines (2014)	yes
	SCoT du Val de Roselle (2009) (currently updated)	yes

Source: Author, Kaiserslautern, 2017.

At subregional level unfortunately the *Schéma Directeur Routier* (2012) of the *département Moselle* as well as the *Schéma départemental de la mobilité et de transport Meurthe et Moselle* (2011/12), the *Schéma des transports du voyageurs /transport collective Meurthe et Moselle* and the *Plan de mobilité pour les agents du département* (Meurthe et Moselle) could not be accessed. Therefore, only the documents named in **Table 42** could be analysed. At intermunicipal level only the SCoTs situated on the territory of the former region Lorraine that directly border Belgium, Luxembourg or Germany were analysed.

71% of the French documents mentioned cross-border transport, the TEN-T, however, were mentioned by less than half of the documents (43%). Most often, the French national policies related to the TEN-Ts (57%). They were also mentioned by half of the regional and intermunicipal policies. Cross-border transport was mentioned by all intermunicipal policy documents, followed by 71% of the national documents and 67% of the regional policies. Only half of the subregional policies referred to cross-border transport. Two regional documents did neither refer to the TEN-T nor to cross-border transport. The **degree of detail of the objectives** in terms of cross-border transport and the TEN-T varies between the documents. The national DTA, the regional document Lorraine 2020 and the regional spatial planning documents were very detailed. The two subregional documents only shortly referred to cross-border transport.



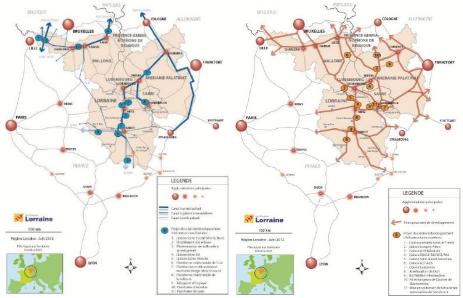


In the following, the relations of four selected French domestic policies to cross-border transport are presented in detail. These were developed on different administrative levels and belong to different policy fields: the *Schéma national des infrastructures de transport*, a national French transport policy document, *Lorraine 2020*, a regional development policy, the *Plan Départemental de l'Habitat de la Moselle 2012-2017*, a subregional environmental policy, and the *SCoT Nord 54/ SCoT Nord Meurthe-et-Mosellan*, an intermunicipal spatial planning policy document. The other policy documents' relation to cross-border transport can be found in the **appendix**.

The national concept for transport infrastructures (*Schéma national des infrastructures de transport*) of 2011 states that the transport across borders needs to be improved to increase the performance of the whole transport system. In this context several border regions of France and their transport bottlenecks are named, however, not the Greater Region (Ministère de l'Ècologie, du Développement durable, des Transports et du Logement 2011, 20f.). The sole two projects within the Greater Region are the freight railway infrastructure between Perpignan (FR) and Bettembourg (LUX) which shall be improved (ibid.,

Source: Author, Kaiserslautern, 2017.

33) and the motorway A31 between Nancy, Metz and Thionville at the Luxembourgish border which shall be expanded (ibid., 48). Besides that, the national rail network shall be made more interoperable to the European network in general (ibid., 18). The document particularly refers to the European priority corridors C and D. Technical barriers shall be minimized to allow cross-border freight services in particular (ibid., 72). But also rail passenger transport services shall be enhanced across-borders (ibid., 186).





*Lorraine 2020* mentions that the region Lorraine is crossed by important European transport axes (ibid., 18) and shall be integrated into the European territory and the Greater Region by demonstrating its importance for north-south and east-west connections. The north-south axis shall become an alternative to the European transport corridors between the North Sea and Mediterranean Sea as well as along the Rhine axis between the Netherlands and Italy (ibid., 41). The EuroCapRail project shall be realised by improving the connections between Bruxelles (BE), Luxembourg (LUX), Vandières (FR) and Saarbrücken (DE) (ibid., 43). The European north-south motorway axis A31 shall be expanded because of the congestions. Furthermore, the link between Lorraine and Belgium (A30 and A28) shall be improved (ibid., 45). The logistic centre in Bettembourg shall be connected to Calais and thereby Great Britain and the centre of Europe. Furthermore, a new freight station in Louvigny (FR) shall be established engaged in the Greater Region logistics. The connection to Luxembourg in general is to be improved. Several waterway extensions are to be implemented in the Greater Region to effectively link the cross-border region to the rest of Europe (see **Image 34**) (ibid., 43f.).

The public transport offer in the Greater Region shall be coordinated and amended (ibid., 116). In addition, cooperation agreements with the neighbouring regions are to be established in the field of transport (ibid., 170).

The *Plan Départemental de l'Habitat de la Moselle 2012-2017* of 2012 mentions the strong commuter flows to Luxembourg and foresees the development of a road connection to Belval (LUX) and thereby an increased accessibility of the Alzette valley. Furthermore, a harmonization of housing between the neighbouring French communities is planned which includes the development of sustainable transport modes across borders (Conseil Général Département Moselle 2012, 57).

Source: Région Lorraine France 2011, 44,46.

	0	10	•••	20	40	50	60	-	00	0.0	100
	0	10	20	30	40	50	60	70	80	90	100
Transport infrastructure network			_	_		_	_	_			
Remove barriers, improve efficiency				_		-					
Linking TEN-T and secondary networks		_	-								
Relieve routes/ fighting congestion								-			_
Intermodality/ interoperability								-		•	_
Intelligent transport systems			-		-						
Freight corridors		<u> </u>		•							
New technologies/innovations (research)		_	_		_			-			
Improving mobility of freight		_		_		-			, I		-
Improving mobility of passengers								•	-		
Accessibility of remote areas		-		_		- i		_			
Cross-border infrastructures				-	-	_		•		•	_
User-friendliness		,	- '	- · ·	1	_		<u> </u>			
Transport services			_	_		_	_		_	-	
(Urban) public and soft mobility				_							
Transport safety				-	_	-		•			
Cross-border services		,	· · ·	-		•					
Environmental and sustainability issues	=								_		
Alternative modes of transport				_	- 1	_		•			
Alternative fuels/ climate change			_	_	_	_	_	• • •			
Minimising environmental harm			_	_	_	_				-	
Sustainable transport	-	_			-	-	-				
Exchange of practices/ coordination	-			-							
		1			1	1	, í				,
			ional (	,	D		Lorra		Est reg	gional	(n=6)
FR subregional (n=4)	FK 1	nterm	unicipa	ai (n=4	•)	_	FR (n	=21)			

#### Figure 62: Contribution of the French policy objectives to EU policy transport-related objectives

The *SCoT Nord 54/ SCoT Nord Meurthe-et-Mosellan* of 2015 aims at linking its transport network to the European network and the Greater Region and make use of its proximity (Syndicat mixte SCoT Nord54 2014b, 20). The road A28 at the Belgian–Luxembourgish border should be expanded with a second track and connected to the French RN52 to minimize the congestions on the A31 in Lorraine (Syndicat mixte SCoT Nord54 2014b, 21, 2014a, 20). This would also contribute to the redirection of the European transport flows through the centre of the SCoT territory. The existing rail track between French municipalities and Esch sur Alzette (LUX) is to be maintained and proposed to be expanded(Syndicat mixte SCoT Nord54 2014a, 21). The transport providers of the region and the *département* should cooperate with those of Belgium and Luxembourg as well as the neighbouring *départements* to ensure a coordinated offer in terms of connections and tariffs. Carpooling infrastructure is to be developed on the most frequently used roads to Luxembourg, the RD906 and the Avenue d'Europe (ibid., 37f.).

When comparing the relevance of the three **cross-border transport-related objectives** in the different French administrative levels' policy documents, the intermunicipal level's policies are the ones which support them most (see **Figure 62**).

The contribution of the French policies to the **linkage of the TEN-T and secondary networks** is very low – less than 15% of the documents contribute to this objective. There are no large differences between the administrative levels, only the intermunicipal level shows a higher contribution. However, it is still lower than the EU policy support. None of the subregional policies mentions this objective. The low general contribution of the policies to this objective might have been caused by its low promotion of the national level.

When looking at the objective of improving cross-border infrastructures, again, the French policy documents' support is below the EU average. Still, 67% consider it to be relevant. All administrative levels' policies - except of the inter-municipal policies - allocate a lower relevance to this category than the EU policies. The regional level policies consider it to be less relevant than the national policies. At subregional level only 25%, i.e. one policy document, defined it as an objective. However, the interviewed French stakeholders emphasize the political relevance of cross-border transport at the subregional level (Interview Beck 2016; Interview Bost 2016; Interview Arts 2016). According to Bost, the French départements strongly influenced cross-border bus transport (Interview Bost 2016). This is acknowledged by Arts: the transport policy documents of the *département* Meurthe-et-Moselle would strongly refer to cross-border transport. Particularly the northern part of its territory is said to be strongly connected to Luxembourg (Interview Arts 2016). Also Beck acknowledges the high political relevance and support of cross-border transport for the *département* Moselle and the former region Lorraine, because both being a border region (Interview Beck 2016). As the policy documents which were said to refer to cross-border transport could not be accessed in the analysis this might have influenced the diverging result. According to the statistics the relevance of cross-border transport infrastructures is reduced steadily from the higher to the lower administrative levels with the exception of the intermunicipal level. This can be explained with the strong concentration of the French transport infrastructure competences at the national level. The intermunicipal level, however, seems to be particularly motivated in this field and even overcomes the EU average support. In this objective the average French policies' deviation from the EU policies amounts to 20%, the subregional policies deviate 61%, whereas the intermunicipal documents only deviate 13.3% (see Table 43).

Policy level	TEN-T and secondary networks	CB infrastructures	CB services	All categories
France national (n=7)	25,7	15,2	3,8	17,6
Lorraine/G-Est regional (n=6)	23,3	20,0	13,3	23,3
subregional (n=4)	40,0	61,7	21,7	27,9
intermunicipal (n=4)	15,0	13,3	53,3	26,7
FR (n=21)	25,7	20,0	1,0	17,7

 Table 43: Average deviation of the French policies from the EU policies

Source: Author, Kaiserslautern, 2017.

The trend of a decreasing relevance of the EU objectives from the national to the subnational level can also be observed in the case of the enhancement of **cross-border transport services** although the national level is only responsible for the high-speed rail connections. The regional level is the main actor in terms of public transport but promotes the objective less. Thus, the stronger promotion of this objective at the national level cannot be explained with the structure of the French transport planning system. The policy documents of the intermunicipal level are an exception from the rule of decreasing relevance as they consider it to be a relevant objective. Overall, the French policy documents promote this objective to a similar degree as the EU policies, with only 1% deviation.

The French stakeholders interviewed, acknowledge the relevance of cross-border transport and its challenges for the **national level** and the state's influence on the implementation of cross-border transport (Interview Straehli 2016). According to Bost and Beck, the French regional level is said to try

to additionally influence the national level and to develop demands. The national level in France has a high decision-making power concerning the implementation of transport projects across borders and decides in the end about the relevance of demands. The national ministry for transport is said to even filter regional demands. An example is the CPER, being a contract between state and region to coordinate the transport development on the regional level, as it entails a coordination between national and regional policies (Interview Beck 2016; Interview Bost 2016). However, sometimes it might be more effective to coordinate transport challenges directly at the regional level across borders without the involvement of the national level (Interview Beck 2016). Therefore, it is proposed to decrease the dependency of French border regions from national decisions in certain fields of experimentation, e.g. cross-border transport, to simplify the procedures (ibid.). Because of the strong power of the national level is said to try to lobby its transport projects in Bruxelles to get further support from the EU level (Interview Bost 2016).

Compared to the other French administrative levels, the **regional level** (*Conseil Régional*) in France is said to have a strong influence on cross-border transport as it is the sole administrative level which is responsible for regional rail transport – also across borders (Interview Straehli 2016). The low relation of the regional policy documents to cross-border transport might be due to the low number of so far existing regional transport or spatial planning policy documents in the Grand-Est, respectively Lorraine. Besides one transport and spatial planning document, the residual analysed policy documents that refer to transport have a different focus, which might have led to a low average support of cross-border transport in the regional documents.

A direct influence of the EU policies on subregional or regional level is discussed controversially by the interviewed stakeholders. According to Arts, the **subregional** policies of the *département* are influenced by the joint national and regional policy CPER because this document regulates the transport investments. Additionally, the *départements* take into account regional projects and can decide to implement certain subprojects which are relevant for the *département* and cross-border transport. These can be funded with the financial support of the region and the national level (Interview Arts 2016).

The **intermunicipal** policy documents seem to be very relevant for cross-border transport as they aim at improving cross-border transport and services to 100%. Thereby they overcome the average EU policy's relevance of these two categories. Solely the relevance of the objective to connect the TEN-T and secondary networks is lower than on EU average. The policies are most similar in the relevance of the TEN-T and cross-border infrastructures (see **Table 43**). However, there is a strong difference when it comes to cross-border services. Also, the overall deviation (all categories) is quite high at intermunicipal level. Cross-border transport services are promoted by the intermunicipal level much more than by the EU level policies. This might be due to the tendency that the political will to support cross-border transport is highest in administrative boundaries which are directly dependent of the neighbouring foreign regions. Based on a high political will, cross-border transport projects could be implemented even without EU support. However, often the financial support is said to be necessary.

When looking at the **other transport policy objectives**, depicted in **Figure 62**, not all EU relevant objectives have been taken over as relevant objectives by the national policies. An example is the objective of fostering sustainable transport. At the same time, the national level policy documents consider several objectives more important than the EU policies, e.g. in the case of user-friendliness and freight mobility. The stronger promotion of certain EU objectives at national level, however, does not seem to have a direct influence at the regional level as these objectives are not particularly promoted by the regional policy documents. Some EU objectives like 'passenger mobility' and 'transport services' are mentioned more often in the subregional policies as an objective than in the EU policies. Sometimes the subregional policy documents promote EU relevant objectives even if the regional and national

policies do not strongly promote them (e.g. in the case of sustainable transport). The intermunicipal level seems to be most flexible from the other levels. It often considers objectives to be very important although the other levels show a moderate importance. The clear top-down influence between the different administrative levels, as it seemed to be the case for the three cross-border transport objectives, cannot be acknowledged in the overall transport-related EU objectives' implementation. In general, the national level shows the lowest average deviation from the EU objectives (see Table 43). Therefore, it seems to be influenced most by the EU policies. The high promotion of cross-border services by the national level policy documents might be due to the strong influence of the national French rail operator SNCF on the regional transport offer although the French regions develop their own aims for public transport. The national aims are said to contradict the regional aims in some cases (Interview Schreiner 2016). According to the interviewed stakeholders the national level oriented its transport policies on the EU objectives in order to benefit from EU funds. The low relation of French policies to the TEN-T is explained with the low support of the EU TEN-T funds for the old member states (Interview Bost 2016). It is considered that the EU influences firstly the national level which adopts new procedures and transport aims. These changes then have an influence on the lower levels (Interview Arts 2016). The influence of the EU is seen as a positive feature which should not be reduced as it makes the national level react on new relevant transport-related issues (Interview Beck 2016).

In terms of the definition and support for concrete cross-border transport projects in the French policy documents, the national level in France is said to be very powerful according to the interviewed stakeholders. 43% of the French national documents named distinct rail and road cross-border transport infrastructure projects. None of the projects was repeated in another national level document. 50% of the regional policy documents defined concrete cross-border projects to be implemented in the transport modes rail, road and waterways. The expansion and modernization of the motorway A31 between Thionville and Luxembourg is named by two policies. Several road projects which were defined already in the national policy documents were repeated at regional level. The two subregional policy documents with relation to cross-border transport (50% of all subregional policies) defined one concrete project each. One concerned rail, the other one road transport. These projects were not mentioned by the national and regional policy documents but seem to be based on local needs. At the French intermunicipal level all policy documents defined concrete cross-border infrastructure projects. Some of the road infrastructure projects and one rail project named in the intermunicipal documents are also promoted by the national and/or regional level. Additionally, at intermunicipal level concrete public transport projects were developed. This seems to be a special trait of the SCoTs. When comparing the projects defined by the different administrative levels different focuses can be observed depending on specialised perceived needs and infrastructures. At the same time some projects - particularly those concerning road infrastructures – were mentioned by the national, regional and inter-municipal levels' policies. This speaks for a mutual influence between the levels. A list of the concrete projects can be found in the appendix.

#### Germany

The policies of the national level were already described in **chapter 6.2.2** as they are relevant for the first and second case study.

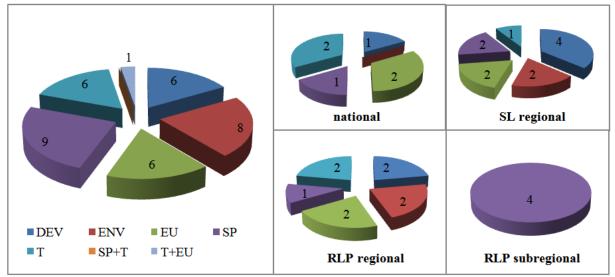
In total 36 German policy documents were analysed which were published between 1997 and 2017 (see **Table 44**). The majority of the German policy documents are spatial planning and environmental policies, followed by transport, EU related and development strategies. The distribution of these documents on the different administrative levels, however, varies (see **Figure 63**). At the subregional level, for instance, solely spatial planning policies exist that refer to the transport development.

Admin. level	Name of the policy document	CB- transport
Rhineland-	Landesverkehrsprogramm Rheinland-Pfalz 2000 (2000)	yes
Palatinate	Landesentwicklungsprogramm IV (LEP) (2008)	yes
(regional)	Operationelles Programm Wachstum durch Innovation EFRE Rheinland- Pfalz 2007-2013 (2010)	yes
	Perspektiven für Rheinland-Pfalz -Nachhaltigkeitsstrategie (2011)	
	Operationelles Programm des Landes Rheinland-Pfalz für den EFRE 2014- 2020 (2014)	
	Innovationsstrategie Rheinland-Pfalz (2014)	
	Klimaschutzkonzept des Landes Rheinland-Pfalz (2015)	yes
	Zukunftskonzept Nahverkehr für Rheinland-Pfalz (2015)	yes
	Koalitionsvertrag Landesregierung 2016-2021 (2016)	yes
Saarland (regional)	Verkehrsentwicklungsplan Öffentlicher Personennahverkehr Saarland (1997)	yes
-	Landesentwicklungsplan (LEP) Saarland Umwelt (2004)	yes
	Landesentwicklungsplan (LEP) Saarland Siedlung (2006)	
	Landschaftsprogramm Saarland (2009)	
	Eckpunkte einer Frankreichstrategie für das Saarland (2009)	yes
	Koalitionsvertrag 15. Legislaturperiode des Landtags des Saarlandes 2012- 2017 (2012)	yes
	Operationelles Programm EFRE Saarland 2007-2013 (2014)	
	Operationelles Programm EFRE Saarland 2014-2020 (2014)	
	Strategie für Innovation und Technologie Saarland (2015)	
	Haushaltsplan des Saarlandes 2016 und 2017	yes
	Nachhaltigkeitsstrategie für das Saarland (2017)	yes
Subregional	Zukunftsstrategie Region Trier 2025 (2008)	yes
Rhineland-	Regionaler Raumordnungsplan (RROP) Westpfalz IV (2011)	yes
Palatinate	Regionaler Raumordnungsplan (RROP) Region Trier (Entwurfsfassung 2014)	yes
	Einheitlicher Regionalplan Rhein-Neckar (2014)	yes

Table 44: Transport-related documents on regional and subregional German level

Source: Author, Kaiserslautern, 2017.

### Figure 63: Composition of the analysed German policy documents (n=36)



Source: Author, Kaiserslautern, 2017.

58% of the 36 German policies mention cross-border transport, but only one third (33%) mentions the TEN-T. The regional policies of Rhineland-Palatinate mention the TEN-T more often than the other administrative levels (56%) whereas cross-border transport seems to be less relevant (44%). The regional plans of the Saarland, however, are more similar to the German average: 55% refer to cross-

border transport. Only 9% of them (i.e. one document) mentions the TEN-T. All four subregional policy documents of Rhineland-Palatinate refer to cross-border transport, only 50% of them to the TEN-T.

The **degree of detail** in which the cross-border transport and TEN-T related aims are described in the policy documents varies. The *Landesverkehrsprogramm* of Rhineland-Palatinate, the *Verkehrsentwicklungsplan* and the *Landesentwicklungsplan (Umwelt)* of the Saarland are the policies with the strongest and detailed relation to cross-border transport at the regional level. Also the subregional plan of Trier (*Regionaler Raumordnungsplan Region Trier*) is very detailed.

In the following, the **relations to cross-border transport** of three selected German domestic policies are presented in detail that were developed on the three different subnational administrative levels and belong to different policy fields: the *Operationelles Programm "Wachstum durch Innovation" EFRE Rheinland-Pfalz 2007-2013*, a regional EU related policy document of Rhineland-Palatinate, the *Verkehrsentwicklungsplan Öffentlicher Personennahverkehr Saarland*, a regional transport policy document of the Saarland and the *Regionaler Raumordnungsplan (RROP) Region Trier*, a subregional spatial policy document. The other policy documents' relation to cross-border transport can be found in the **appendix**.

According to the Operational Programme for the ERDF **"Wachstum durch Innovation"** (2007-2013) of Rhineland-Palatinate of 2010, regional roads in the vicinity of the border - for instance to Luxembourg - are to be expanded (Ministerium für Wirtschaft, Verkehr, Landwirtschaft und Weinbau Rheinland-Pfalz 2010, 16). The accessibility to the TEN-T and the European transport network shall be improved (ibid., 45).

According to the *Verkehrsentwicklungsplan Öffentlicher Personennahverkehr Saarland* (public transport development plan) of 1997 the cross-border transport between the Saarland and Luxembourg as well as France shall be improved because of the existing strong cross-border transport flows (Ministerium für Umwelt, Energie und Verkehr Saarland 1997, 54). A newly expanded rail track of the *Stadtbahn* between Saarbrücken (DE) and Sarreguemines (FR) shall be put into practice (ibid., 7). It is to be investigated if this offer can be prolonged on French territory by the SNCF (ibid., 55). Additionally, it is envisaged to access Forbach (FR) with the Stadtbahn from Saarbrücken (DE) (ibid., 8). For this purpose a vehicle concept has to be established because of the different electricity standards of the two countries (ibid., 55). Larger amounts of the cross-border transport to Luxembourg and France shall be shifted to public transport. In cooperation with French stakeholders an improvement of the public transport offer shall be investigated between Boulay (FR) and Saarlouis (DE) as well as Carling (FR) and Saarlouis (DE). Additionally, either the rail connections from Saarbrücken (DE) to Luxembourg (LUX) shall be improved or the existing bus connection shall be enhanced (ibid., 9, 55).

The new public transport development plan of the Saarland, which is currently developed by the transport ministry, is expected to contain even more concrete cross-border transport development objectives than the plan of 1997. In its establishment process the Saarland will involve the neighbouring countries in the participation process. This involvement is considered to lead to a higher transparency and have a positive impact on the coordination. Additionally, the involvement might be an impetus for the development of common cross-border projects (Interview Ludwig 2016).

The *Regionaler Raumordnungsplan (RROP) Region Trier (Entwurfsfasssung 2014)* also aims at integrating the region to the European transport network. All transport modes shall contribute to this aim (Planungsgemeinschaft Region Trier 2014, 83). Particularly the international rail connections are to be enhanced and maintained (ibid., 85). Direct connections to Luxembourg – every hour - and Metz are to be developed (ibid., 86). The regional rail line to a new Luxembourgish rail station (*Pont rouge*) is to be improved. Furthermore, the regional rail connection from Trier via Perl (DE) to Metz and Nancy (FR) shall be offered on all days of the week (ibid., 88). The connection to Luxembourg shall ensure the

link to the French TGV rail network (ibid., 86). Besides that, a direct connection to the French network via Metz (FR) is to be established (ibid., 94). Furthermore, a fast public transport connection between Luxembourg, Trier and Frankfurt is to be developed (ibid., 88). The road A 60 from Liège (BE) through Bitburg to Wittlich shall be prolonged via a national road to the A61 in Rheinböllen (DE). Furthermore, the local road L 142 shall be expanded between the B407 (DE) and the Luxembourgish border (ibid., 84f.). The regional rail track between Wittlich, Trier (DE) and Wasserbillig (LUX) is to be maintained and expanded. The regional bus between Bitburg, Irrel (DE) and Luxembourg (LUX) shall be maintained as well. Additionally, new bus lines are to be developed between Diekirch, Vianden (LUX) and Bitburg (DE), between Ettelbruck (LUX) and Gerolstein (DE); Prüm (DE) and St. Vith (BE) and between Kell (DE) and Luxembourg (LUX) (ibid., 86f.). The spatial extent of the public transport tariff system of Trier shall be enlarged to Luxembourg (ibid., 88). A second rail track between Konz (DE) and Wasserbillig (LUX) is to be built (ibid., 88). In terms of freight transport an e-centre of competence for logistics shall be established together with Luxembourg. A cross-border freight route is to be established. Also the ports of Trier (DE) and Mertert (LUX) are to be managed across borders (ibid., 89). The plan does not refer directly to the TEN-T corridors. However, it supports the cooperation within the Greater Region (ibid., 9, 13, 15).

In the German policy documents the **linkage of TEN-T and secondary networks** is not considered to be an important objective, only 19% of all documents mention it (see **Figure 64**). It is most relevant in the subregional documents of Rhineland-Palatinate (50%) and the national documents (33%). However, it is not relevant for the Saarland documents and only taken over by few (11%) regional Rhineland-Palatinate policies. In total the German documents deviate 20.6% from the EU policies in this objective. The national documents are most similar to the EU policies in this objective (see **Table 45**). According to the interviewed stakeholders of Rhineland-Palatinate the development of the POS-Nord track, linking Baudrecourt with Saarbrücken, Kaiserslautern and Mannheim, – which belongs to a TEN-T corridor - is said to be strongly supported by the German national level (Interview Harmeling 2016). As the German national level is responsible for the supraregional transport infrastructures and provides the funds it also decides about large scale infrastructure projects which cross the national border (Interview Clev and H. J. Fette 2016) and thereby has a certain influence. Still the EU policies' support is higher than the one of the German national policies. The subregional documents are an exception as they relate more to this objective than the EU policies.

The relation of the German policies to **cross-border infrastructures** is moderate (47%) and therewith much lower than at EU level. The subnational German policies might be affected by the moderate support of the national documents to cross-border infrastructures (42%) as it is copied by the lower levels (see **Figure 64**). 44% of the regional policies of Rhineland-Palatinate and 45% of regional policies of the Saarland support this objective. A reason for the low domestic support for this objective might be the fact that transport infrastructure planning in Germany is reactive. Therefore regional planning processes across borders are only started when strong cross-border transport flows exist and transport infrastructures and services need to be amended (Interview Chlench 2016). A certain influence of the national level policies might also be proven by the adoption of some infrastructure projects from the higher levels (see below). The subregional documents, however, consider the improvement of cross-border infrastructures to be more relevant (75%) and thereby resemble the level of relevance of the objective in the EU policies (11.7% deviation). On average the German policies deviate 39.4% from the EU policies' percentage of this objective (see **Table 45**).

	0	10	20	30	40	50	60	70	80	90	100
Transport infrastructure network		_		_							
Remove barriers, improve efficiency								•			
Linking TEN-T and secondary networks	-	-		-							
Relieve routes/ fighting congestion				-							
Intermodality/ interoperability							-				
Intelligent transport systems							-				
Freight corridors	1			•							
New technologies/innovations (research)				, ,					-		
Improving mobility of freight		_	_	_		_			-		
Improving mobility of passengers		_	_	_	_	_	_	_		-	
Accessibility of remote areas		_	_	_	_				-		
Cross-border infrastructures		- 1	_	_						•	
User-friendliness		1		-	1		-				
Transport services		-	_	_	1						
(Urban) public and soft mobility		- 1									
Transport safety		-									
Cross-border services										_	_
	-1	-		-				-			
Environmental and sustainability issues		- 1									-
Alternative modes of transport	-			-	-		-			•	
Alternative fuels/ climate change	- =				1						
Minimising environmental harm		- 1	- 1		- 1	_					
Sustainable transport		-			, ,						
Exchange of practices/ coordination		-,		-	-		<u> </u>				
EU policy (n=15)		ermany						regiona	al (n=9	)	
Source: Author, Kaiserslautern, 2017.	DI	E (RLP	') subre	egional	l (n=4)		DE (n	=36)			

### Figure 64: Contribution of the German policy objectives to EU policy transport-related objectives

## Table 45: Average deviation of the German policies from the EU policies

Policy level	TEN-T and secondary networks	CB infrastructures	CB services	All categories
Germany national (n=12)	6.7	45.0	38.3	18.7
RLP regional (n=9)	28.9	42.2	13.3	17.1
RLP subregional (n=4)	10.0	11.7	53.3	23.3
Saarland regional (n=11)	40.0	41.2	7.9	26.3
DE (n=36)	20.6	39.4	7.8	16.1

Source: Author, Kaiserslautern, 2017.

In the case of **cross-border transport services** the contribution of this objective increases from higher to lower level. Whereas this is not a relevant topic for the national policies (8.3%), it is quite relevant for the regional levels – particularly for the ones of the Saarland (55% and 33% of Rhineland-Palatinate – and becomes even more relevant for the subregional policies (100%). Therefore, this category seems

to strongly depend on the local needs and competences. The support of the two regional levels' policy documents is more similar to the objective's relevance in the EU policies. The policies of the Saarland promote this objective even 8% more than the EU policies. The subregional policies promote the objective 53% more than the EU policies. In the top-down influence of the EU policies, the national level seems to have been skipped. In total, 39% of the German documents aim at improving cross-border transport services. Thereby they deviate only 7.8% from the EU policies' support (see **Table 45**).

Overall, in the objectives relevant for cross-border transport, the German subregional level seems to be most motivated to support them. The subregional documents of the planning region Trier were established based on a broad public participation with the neighbouring regions. Thereby the crossborder transport objectives are said to have been developed jointly and coordinated across-borders. The aims and principles of the RROP are to be taken into account by the lower administrative levels. However, the influence on the cross-border transport practice is said to be limited (Interview Planungsgemeinschaft Region Trier 2016). Also, the RROP Westpfalz aims at enhancing the crossborder transport between Germany and France. However, it cannot legally steer the further implementation (Interview Clev and H. J. Fette 2016) because the competences are missing. This acknowledged by Trinemeier. The subregional planning regions have to implement the technical specifications from national and regional levels in the field of transport (Interview Trinemeier 2016). Thus, a **top-down influence** of the German policy documents exists. The subregional level could solely define challenges and bring responsible decision-making stakeholders together in order to influence the further transport development. Only general strategies could be formulated for future cross-border transport without binding effects (ibid.). Schreiner strongly criticizes the lack of competences of the regional and subregional spatial planners. The proposals which are defined in the plans are said not to have a strong influence on the implementation because the spatial planers would not administrate the funds. Therefore he considers the **communication** and negotiations with the neighbouring regions and the definition of common aims to be more relevant than the policy documents themselves (Interview Schreiner 2016; Interview Schreiner 2016). Besides that, it is praised that the neighbouring countries are **involved** in the **establishment process** of new regional plans (Interview Schreiner 2016). Trinemeier thinks that cross-border transport has to be **steered on higher political** than the subregional level. The subregions should nevertheless cooperate across borders and promote the implementation of EU transport objectives in the course of their activities and competences. Thereby the national implementation of these objectives might be accelerated (Interview Trinemeier 2016).

Although the **regional** *Landesentwicklungsprogramm* (*LEP*) of Rhineland-Palatinate defines crossborder transport-related objectives and strongly refers to the TEN-T Schelkmann does not expect a strong influence of the regional spatial planning document of Rhineland-Palatinate on cross-border transport. The new LEP is envisaged to contain stronger relations to cross-border projects (Interview Schelkmann 2016).

When looking at the hierarchical influences within the administrative system of Germany - taking into account **all transport-related EU objectives** (see **Figure 64**) - there is both, cases where the national level defines the EU objectives to be very relevant – sometimes even more relevant than promoted by the EU - but the lower administrative levels consider it to be less relevant (e.g. in the case of the minimization of environmental harm) and cases where the lower levels mirror the relevance of the national level (e.g. user-friendliness).

According to Chlench the **national** spatial planning guidelines (*Leitbilder*) - presented in **chapter 6.2.2** – influenced the regional planning objectives. At the same time the German regions are said to have shaped the development of the national guidelines on spatial planning. Particularly the border regions advocated the importance of cross-border cooperation (Interview Chlench 2016). The national BVWP

decides about the priorities of transport investments in its regions (Interview Harmeling 2016). However, the regions proposed the transport investment priorities before, only rarely the national level defined its own objectives. Therefore Glöckner argues that the regions strongly influenced the national level (Interview Glöckner 2016). The nationally decided broad aims are then taken into account by the regional policies again (Interview Harmeling 2016). Thereby the interview statements acknowledge the existence of a top-down and a bottom-up policy influence. Also, the other national strategies might slightly influence the regional road development. However, Trinemeier thinks that the federal administrative system of Germany leads to a variety of regional implementations of the national objectives that are strongly shaped by regional interests (Interview Trinemeier 2016). This is acknowledged by Glöckner as the main focus of the regional policies would be laid on the regional needs (Interview Glöckner 2016). Therefore, the regional levels sometimes consider issues relevant which are not promoted by the national level such as cross-border transport services. Additionally, the regional policies vary. This can be acknowledged in the comparison of the policy documents from the Saarland and Rhineland-Palatinate: the objectives 'intermodality' or 'new technologies' are both promoted much less by the Saarland than by Rhineland-Palatinate. Cross-border services anon, are mentioned more frequently by the Saarland. According to Ludwig, the German national policies' influence on the German regions additionally depends on the feasibility of the objectives by the regional funds available (Interview Ludwig 2016) which can vary among the regions. Furthermore, it depended on the **experience of the stakeholders** that are involved in transport planning.

The **subregional** level policy documents of Rhineland-Palatinate show a similar focus like the regional documents, however, sometimes support objectives to a stronger degree. Examples are the exchange of practices, cross-border services and infrastructures as well as the removal of barriers. However, as stated above, the subregional planning documents are strongly influenced by the higher levels (Interview Trinemeier 2016). At the same time, the subregional level can propose priority projects for the national BVWP and try to influence the national level. The national level takes the final decision. It is considered to be dissatisfying when the proposals are refused without explanation (Interview Clev and H. J. Fette 2016). Still these **bottom-up processes** are considered to be necessary to promote the implementation of EU objectives at national level (Interview Trinemeier 2016).

All German subregional level policies defined **concrete cross-border infrastructure and service projects** whereas only 33% of the regional policy documents of Rhineland-Palatinate and 55% of the Saarland defined concrete projects. Some projects, particularly rail infrastructures and inland waterways were named at several administrative levels. Road infrastructures were mentioned by different administrative levels only once: a road project from regional level was adopted at the subregional level. In road transport development the variety of needs seems to be higher.

As the rail connections between Koblenz, Trier and Luxembourg as well as between Paris, Saarbrücken, Kaiserslautern and Mannheim (POS) are named by the national level, the regional level of Rhineland-Palatinate, as well as by the subregional level, they seem to be very important. The development of the POS-Nord connection which is part of a TEN-T track is strongly supported by Rhineland-Palatinate (Interview Harmeling 2016). Additionally, the connection of the Mosel river to the Rhône river as well as the promotion of the rail service connection between Trier and Luxembourg are promoted by regional and subregional policy documents. Therefore, a mutual influence between the German administrative levels' policy documents seems to exist.

However, a multitude of public transport service connections were not named by the higher administrative levels' policies. Transport services are promoted more often by the subregional levels – being closer to the local transport service needs. The *Landesverkehrsprogramm* defines the most concrete projects concerning the cross-border transport development of Rhineland-Palatinate oat the

regional level. The regional policy documents of Rhineland-Palatinate, however, do not define concrete bus service projects. Cross-border bus services are treated in Germany by the lowest possible level, i.e. in Rhineland-Palatinate at the subregional level and in the Saarland at the regional level.

According to Harmeling, the integration of important cross-border transport projects in the regional policies contributes to the definition of the cross-border transport system (ibid.) and thus is very relevant. The analysis of the German policy documents showed that the German policy levels mutually influence each other in a top-down and bottom-up manner, based on the German transport planning- and administrative system. Cross-border transport is mainly promoted on the regional and lower administrative levels.

# Luxembourg

As there are no Luxembourgish policies which were established at regional or subregional level, solely the documents from the national level - in total 15 policy documents - were analysed (see Table 46). As can be seen in Figure 65, this includes two spatial planning policies, one of them being both a spatial and transport policy, four further purely transport-related transport policies, three policies with an environmental focus and five EU related policies. The policies were developed between 2003 and 2016. A high number of the Luxembourgish documents (71%) defined aims concerning cross-border transport. However, less than half of the documents (43%) relate to the TEN-T.

The degree of detail of the aims in terms of cross-border transport and the TEN-T differs among the analysed policy documents. A high number of documents is very detailed. Therewith it can be seen that cross-border transport is an important topic for the country.

In the following, the relations of three Luxembourgish domestic policy documents to cross-border transport is presented. These were developed at the national administrative level and belong to different policy fields: the Integratives Verkehrs- und Landesentwicklungskonzept für Luxembourg, a national spatial planning and transport policy document, the *Stratégie globale pour und mobilité durable: Pour* les résidents et les frontaliers, a national transport policy, and the National plan for the smart, sustainable and inclusive growth – Luxembourg 2020, an EU related policy. The other policy documents' relation to cross-border transport can be found in the **appendix**.

Name of the policy document	
	transport
Programme Directeur d'aménagement du territoire (PDAT) (2003)	
Integratives Verkehrs- und Landesentwicklungskonzept für Luxembourg (IVL) (2004)	
Cadre de référence stratégique national 2007-2013 (CSRN) (2007)	yes
Programme Opérationnel FEDER 2007-2013 (PO FEDER) (2007)	
Plan national d'action pour la mobilité douce (PANMD) (2008)	
Plan national pour un développement durable (PNDD) (2010)	yes
Paquet Climat 2011	yes
Stratégie globale pour une mobilité durable (MoDu) (2012)	yes
Plan Directeur Sectoriel Transports (PST) (2013)	yes
Regionales und grenzübergreifendes P&R Konzept (2012)	yes
Accord de partenariat Luxembourg (Partnership Agreement Luxembourg) (2014)	yes
Programme opérationnel 2014-2020 Luxembourg (2014)	
Pacte Climat (2015)	
National plan for the smart, sustainable and inclusive growth – Luxembourg 2020 (National	yes
Reform Programme) (2016)	
Source: Author Kaiserslautern 2017	

Table 46: Luxembourgish national transport-related policies

Source: Author, Kaiserslautern, 2017.

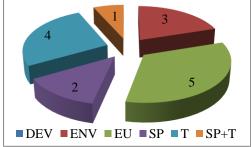


Figure 65: Composition of the analysed Luxembourgish policy documents (n=15)

Source: Author, Kaiserslautern, 2017.

The Integratives Verkehrs- und Landesentwicklungskonzept für Luxembourg of 2004 was supposed to be used as discussion basis for Luxembourg's cross-border development (Innenminsterium Luxemburg et al. 2004, 2). It dwells on the countries' integration in the European road and rail road network, and the connection to its direct neighbours. It criticizes the different rail electricity systems in its neighbouring countries which hampered a smooth transport across borders and require higher financial and organizational efforts (ibid., 15). Furthermore, the number of cross-border rail connections is to be increased because of the large number of cross-border commuters. The IVL promotes the implementation of the rail connection of Luxembourg to the TGV Est to Paris and the EuroCapRail (Bruxelles-Luxembourg-Strasbourg) project with travel time reductions (ibid., 17f.). Furthermore, Luxembourg shall be integrated better in the European rail transport network. At the same time the regional cross-border transport is to be improved (ibid., 40). Luxembourg aims at shifting the crossborder flows to public transport to minimize the high transport burden. It is expected to meet a high demand whereas it is not expected to reach a comparable high share of public transport in the rural parts of the country (ibid., 19f.). Infrastructure bottlenecks in the cross-border transport network to Luxembourg's neighbouring regions shall be removed and the cross-border public transport shall be expanded – particularly in the core hours - because of its strong overload (ibid., 30). In general the crossborder cooperation is to be enlarged to ensure the implementation of the IVL and benefit from common potentials (ibid., 86). Cross-border linked transport systems are to be established together with the transport providers of cities neighbouring Luxembourg (ibid., 120).

According to the Stratégie globale pour und mobilité durable: Pour les résidents et les frontaliers (MoDu) of 2012, it shall be cooperated with the neighbouring local regional and national authorities to increase the share of public transport because of the high number of cross-border commuters which work in Luxembourg but live in the neighbouring countries. Additionally, the national rail system is to be connected better to the European network (Département de l'aménagement du territoire du Gouvernement du Grand-Duché de Luxembourg 2012, 41). The cross-border rail connections and the infrastructures are to be adapted to the current needs (ibid., 104ff., 115). Examples are the construction of a viaduct and a second track on the track to Trier, a second track on the passage from Rodange to the French border. These shall contribute to a shift of commuters to public transport (ibid., 111f.). Most cross-border transport shall be shifted to trains because considered to be most effective compared to the bus (ibid., 117). Additionally, the EUROCAP RAIL project shall be implemented to improve the connection of Luxembourg to Bruxelles (ibid., 113). The prioritization of public transport on the motorway between Lorraine and Luxembourg (A3/A31) shall be coordinated with France (ibid., 121). The road network is to be adapted based on international agreements which oblige Luxembourg to remove bottlenecks (ibid., 102). Carpooling is to be fostered particularly for the cross-border commuters (ibid., 127). So-called SMOTs (Schémas stratégiques de mobilité transfrontalière), cross-border transport development concepts, shall support the coordination of domestic transport projects across the border and improve the cross-border transport relations. The cross-border needs are to be taken into

account (ibid., 138f.). Belval is to be connected better to its neighbouring French municipalities in terms of transport (ibid., 140f.). P&R infrastructures are to be expanded and connected to other transport modes close to the borders to allow the commuters an easy shift of their transport mode (ibid., 152). It is planned to connect the Luxembourgish transport information and service system with the other regional systems of the Greater Region in the future to improve the cross-border transport (ibid., 160).

The National plan for smart, sustainable and inclusive growth – Luxembourg 2020 of 2014 promotes cross-border actions like an expansion of public and 'soft' transport infrastructure to minimize the CO<sub>2</sub> emissions. Alternative cross-border transport systems are to be developed. The bilateral SMOT with the French region is said to have contributed to this aim. It shall coordinate the railway services and increase the number of passengers. Also, a SMOT with the Walloon region was developed to increase the cross-border public transport offer and alternative transport modes and offers like car sharing, 'soft' mobility and park and ride. The cross-border rail infrastructure is to be enhanced. In 2016 also a SMOT with the German neighbouring regions of Luxembourg was developed with similar contents (Gouvernement du Grand-Duché de Luxembourg 2016, 25f.). The policy document refers to the ETC project ELEC'TRA which developed a concept for e-mobility in the Greater Region (ibid., 29).

80 100 0 10 20 30 40 50 60 70 90 Transport infrastructure network Remove barriers, improve efficiency Linking TEN-T and secondary networks Relieve routes/ fighting congestion Intermodality/ interoperability Intelligent transport systems Freight corridors New technologies/innovations (research) Improving mobility of freight Improving mobility of passengers Accessibility of remote areas Cross-border infrastructures User-friendliness Transport services (Urban) public and soft mobility Transport safety Cross-border services Environmental and sustainability issues Alternative modes of transport Alternative fuels/ climate change Minimising environmental harm Sustainable transport Exchange of practices/ coordination ■ EU policy (n=15) ■ LUX (n=14)

Figure 66: Contribution of the Luxembourgish policy objectives to the EU policy transport-rela	ted
objectives	

Source: Author, Kaiserslautern, 2017.

The connection of the **TEN-T and secondary networks** is not an important objective for the analysed Luxembourgish documents. Only 14% of the policies analysed promote this objective (see **Figure 66**). According to Besch and Juttel the TEN-T policy is considered to be a rather technical policy which is most relevant for the Luxembourgish rail sector (Interview Besch and T. Juttel 2016). As no public rail

policy documents were developed and analysed, this might be a reason for the low reference to the TEN-T in the Luxembourgish policies.

The promotion of the objectives '**cross-border infrastructures**' as well as '**cross-border services**' in the Luxembourgish policy documents, however, is relatively high and similar to the promotion in the EU policies. Cross-border services are considered to be even more important for the Luxembourgish national policies than for the EU policies. As no regional administrative level exists, also public services are managed at national level, which can be seen in the frequency of reference in the national policies.

It is interesting that the interviewed stakeholders from the Luxembourgish transport and planning administration consider the Luxembourgish policies not to refer much to cross-border transport (Interview Vidal 2016; Interview Besch and T. Juttel 2016). Vidal criticizes that the Luxembourgish sectoral policy departments – among others, - have tended to develop concrete strategies for investments before the neighbouring regions were consulted. The spatial planning department is said to favour an earlier consultation process and thus has tried convincing the other departments to do so as well (Interview Vidal 2016).

As Luxembourg solely consists of a national and a municipal administrative level, the national administrative level deals strongly with cross-border transport policies (ibid.). In this context it developed additional bilateral documents on cross-border transport (SMOT) with each neighbouring region to be able to develop more concrete objectives and facilitate their joint implementation. The development of the SMOTs was pushed forward strongly by the Luxembourgish government. Therefore they are also considered to be a national transport development document (Interview Besch and T. Juttel 2016; Interview Vidal 2016). The SMOTs and the residual cross-border policies in which Luxembourg is involved are presented in the following section.

Policy level	TEN-T and secondary networks	CB infrastructure	CB services	All categories
LUX (n=14)	25.7	15.2	17.6	18.3

Table 47: Average deviation of the Luxembourgish policies from the EU policies

Source: Author, Kaiserslautern, 2017.

When comparing the Luxembourgish policies' objectives with the residual **transport-related EU policies' objectives** (see **Figure 66**) similar and diverging tendencies can be observed as in the field of cross-border transport. In general, the deviation from the EU objectives is relatively low. The objective on the 'linkage between TEN-T and secondary networks', however, is above the average deviation of the transport-related EU objectives (see **Table 47**). In other objectives the deviations are even higher, e.g. in the case of sustainable transport. The deviation of the other two transport-related objectives is similar to the average deviation of all Luxembourgish transport-related objectives.

According to the interviewed stakeholders Luxembourg shares most EU objectives in the field of transport (Interview Besch and T. Juttel 2016). This is acknowledged by the relatively low deviation from the EU policy objectives. The interviewed stakeholders consider it important that certain transport objectives are pushed by the EU – a EU wide harmonization might facilitate the cooperation with Luxembourg's neighbouring regions. In general, Luxembourg is said to be strongly shaped by the strong and growing cross-border commuter flows so that it does not need an additional EU pressure to enhance its cross-border transport network but does so automatically (Interview Besch and T. Juttel 2016; Interview Vidal 2016). However, the linkage of the TEN-T to secondary tracks seems not to be very important for the Luxembourgish policy documents.

In the absence of a regional and subregional planning level the transport development of Luxembourg is mainly steered by the national level. 36% of the Luxembourgish policy documents defined **concrete cross-border projects** for rail, road and P&R infrastructures as well as rail and bus services. A very

important project concerns the rail connection between Bruxelles, Luxembourg and Strasbourg – it was named by several policy documents. A list of the defined concrete cross-border projects can be found in the **appendix**.

Despite the low deviation from the EU policies, Vidal stated that the sectoral policies of the member states were often not coordinated efficiently across borders because this was not automatically perceived to be important. Often the development of internal transport policies would already be considered to be challenging when the participation of the lower levels needed to be ensured. The coordination across borders would be seen as further challenge (Interview Vidal 2016). Pure national policy documents are said not to be able to define aims concerning the cross-border transport development because the country could not ensure the implementation of cross-border projects without the agreement of the involved countries. Therefore, bilateral cross-border cooperation documents like the SMOTs were established by Luxembourg with the neighbouring countries to commonly agree on common projects. Thus, the Luxembourgish interviewed stakeholders attribute a high relevance to cross-border policy documents for the implementation of cross-border transport (Interview Besch and T. Juttel 2016).

The next section presents the relation of the existing cross-border policy documents, i.e. documents which were developed in cooperation of different national entities of the Greater Region, to cross-border transport and the EU policy transport-related objectives.

# Cross-border cooperation policy documents

In the Greater Region several cross-border policy documents were developed. This acknowledges the expected role of cross-border regions as **policy-entrepreneur**. Several policies relate to (cross-border) transport. This underlines the relevance of cross-border transport and indicates a high probability of existing transport challenges that need to be fixed.

24 cross-border policies which refer to transport were analysed. It is differentiated between policies which were developed at cross-border regional level – i.e. involving the whole territory of the cross-border region – or at cross-border local level, i.e. these only involve parts of the Greater Region's territory. At cross-border regional level five pure transport policies were analysed together with one spatial planning and seven general development policies. They were published between the years 2000 and 2017 (see **Table 48**).

Admin. level	Name of the document			
Cross-border	Empfehlungen der AG Verkehr und Kommunikation WSAGR (2000)			
regional	Schéma de developpement de l'espace SAARLORLUX+ (2002)			
	Vision d'avenir 2020 (2003)			
	Resolution Mobilität in der Großregion WSAGR (2004)			
	Gemeinsame Erklärung 10. Gipfel der Großregion (2008)			
	Metroborder Final Report (2010)			
	Gemeinsame Erklärung 12. Gipfel der Großregion (2011)			
	Vorrangige Verkehrsprojekte im Hinblick auf die metropolitane Entwicklung der			
	Großregion (2013)			
	Besonders vorrangige Verkehrsprojekte im Hinblick auf die metropolitane Entwicklung der			
	Großregion (2014)			
	Abschlussbericht Wirtschafts- und Sozialausschuss der Großregion (WSAGR) 14. Gipfel			
	der Großregion 2013/2014 (2014)			
	Ergebnisse der IPR-Mobilitätskonferenz (2014)			
	Gemeinsame Erklärung 15. Gipfel der Großregion (2016)			
	Programm der Luxembourgischen Ratspräsidentschaft (2017)			
	Arbeitsbericht WSAGR 2015/16 (2017)			

Table 48: Policies on cross-border regional level of the Greater Region

Cross-border	Schéma de developpement Agglo PED: Thème 3: Transports (2003)			
local	Schéma stratégique de la Mobilité Transfrontalière Lorraine - Luxembourg (2009)			
	Qintracity – Die attraktive Schienenverbindung in der QuattroPole (2010)			
	Fiche Tonicités Feuille de route Mobilité+ (2011)			
	Vision d'avenir pour la région Eurodistrict SaarMoselle (2011)			
	Conclusions de la troisième réunion de la COMMISSION INTERGOUVERNEMENTALE			
	FRANCO-LUXEMBOURGEOISE POUR LE RENFORCEMENT DE LA			
	COOPERATION TRANSFRONTALIERE (2013)			
	Orientations stratégiques du GECT Alzette-Belval Periode 1 :2014-2016 (2014)			
	Générer un Réseau de Transport en Commun pour l'Agglomération Transfrontalière			
	d'Alzette Belval en Augmentant l'interoperabilité des Offres Routières Présentes (2015)			
	SMOT (Schéma de mobilité transfrontalière) BE-LUX (2015)			
	SMOT (Schéma de mobilité transfrontalière) DE-LUX (2016)			
aumaan Authon V	aisorelautorn 2017			

Source: Author, Kaiserslautern, 2017.

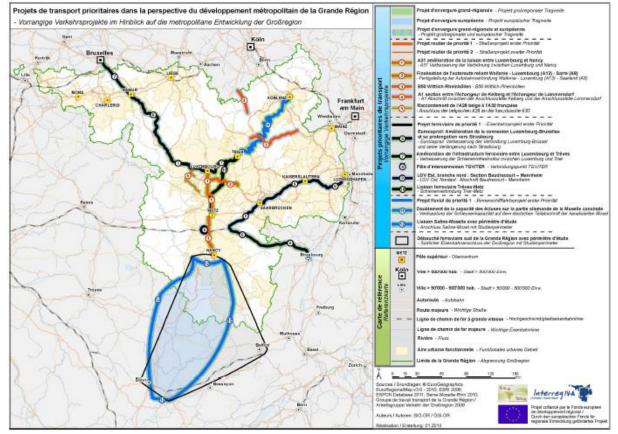
At cross-border local level seven transport-related policies and three general development policies were analysed. In all but one, Luxembourg was involved. France was involved in 80% of the documents, Belgium and Germany solely in 30% of the documents. It would have been interesting to differentiate these policies according to the member states involved, however, because of the low number of cases, reliable findings could not be expected. Therefore, the documents' contribution to cross-border transport is evaluated for the whole group of policies. All analysed cross-border policy documents relate to cross-border transport. The TEN-T are mentioned by only 33% of the documents - more frequently at cross-border regional level (50%) than at cross-border local level (10%).

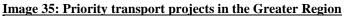
The **degree of detail** in which the documents relate to cross-border transport and the TEN-T varies. Sometimes the documents are only focused on transport development as the *Schémas Stratégiques de Mobilité Transfrontalière* and therefore more detailed, broad development strategies like the *Vision d'avenir pour la région Eurodistrict SaarMoselle* mention cross-border transport solely shortly.

In the following, the relations to **cross-border transport** of two selected cross-border policies are presented in detail that were developed at the cross-border regional level (*Vorrangige Verkehrsprojekte im Hinblick auf die metropolitane Entwicklung der Großregion*) and at the cross-border local level (*Schéma Stratégique de Mobilité Transfrontalière Luxembourg – Rheinland-Pfalz – Saarland*). The latter document was developed by a cooperation of Luxembourg, Rhineland-Palatinate and the Saarland. The other policy documents' relation to cross-border transport can be found in the **appendix**.

The document Vorrangige Verkehrsprojekte im Hinblick auf die metropolitane Entwicklung der Großregion of 2013 supports the implementation of commonly defined priority transport projects (see **Image 35**) for the internal and external freight and passenger accessibility within the Greater Region (Koordinierungsausschuss für Raumentwicklung der Großregion 2013, 2). It does not solely focus on cross-border projects but defines projects that are to be implemented in one country. The latter have to have a strategic relevance for the Greater Region. The priority projects shall contribute to the metropolitan development of the region and improve the current transport situation. Besides that, the residual transport network development shall be defined in a spatial development concept together with municipal and inter-municipal actors (ibid., 2). Existing cooperations shall be coordinated under one roof to ensure a coordinated and non-contradictory development of the whole region (ibid., 3f.). The transport network of the cross-border region shall be integrated into the European metropolitan transport network (ibid., 4). In this context the cooperation between the working group for spatial development and transport shall be prolonged (ibid., 2). Additionally, the topic of logistical hubs shall be analysed (ibid., 2). The north-south freight transport track between Belgium, Luxembourg and Metz (FR) needs to be enhanced. Furthermore, an efficient waterway connection between Saône and Rhône needs to be established for freight transport (ibid., 5).

Besides that, the document aims at developing an alternative transport corridor to the Rhine-Alpine corridor and the corridor between Great Britain, Paris, the Rhône valley and the Mediterranean Sea (ibid., 5). Five motorway projects within the Greater Region are to be implemented with priority, four of them have a direct cross-border relevance: The A31 between Luxembourg (LUX) and Nancy (FR) shall be enhanced because being congested. Additionally, it is said to be of high importance for the internal cross-border accessibility. Furthermore, the bottleneck section between the A8 in the Saarland and A13 in Luxembourg is to be expanded and the missing motorway connection from the A13 to the E411 in Wallonia needs to be developed, particularly as no efficient public transport service existed between this part of Belgium, Luxembourg and the Saarland. Additionally, with a lower priority, the A28 in Belgium shall be directly connected to the A30 in France to offer an alternative to the A31 for French commuters to Luxembourg (ibid., 6ff.).Three rail priority projects are to be supported: infrastructure enhancements shall be promoted on the east-west rail connection between Baudrecourt (FR) and Mannheim via Saarbrücken and Kaiserslautern (DE) to improve the accessibility of the region on the European high-speed rail network. In this project also the connection to the Rhine-Rhône axis shall be improved (ibid., 9).





The second project aims at enhancing the rail connection between Bruxelles (BE), Luxembourg (LUX) and Strasbourg (FR), being part of the EuroCapRail link. The travel time and comfort shall be improved on this track. Additionally, the connection to the TEN-T high speed rail network shall be improved (ibid., 8). Third, the rail infrastructure between Trier and Luxembourg shall be updated and expanded between Igel and Igel-West (DE). The reactivation of a track between Ehrang and Igel (DE) shall improve the public rail transport offer until 2017 (ibid., 8). Besides the infrastructure investment priorities, public transport shall be enhanced as well against the background of the high numbers of cross-border commuters. Among others, the public transport between Saarbrücken (DE) and

Source: ibid., 6.

Luxembourg (LUX) shall be improved. The motorways and railroads are to be connected better to develop better possibilities to connect the two cities (ibid., 9f.). Besides that, the number of passenger rail connections between Trier (DE) and Metz (FR) shall be stabilised, increased and offered on weekdays (ibid., 10). Also, the public transport between the cities Völklingen, Saarbrücken (DE), Forbach, Bening and St. Avold (FR) which are part of the Eurodistrict SaarMoselle and the cities of the other Quattropole network cities Metz, Luxembourg and Trier is to be improved. A feasibility study is to be conducted to analyse the benefits of a commuter train between the cities (ibid., 10). Two waterway projects have been identified as a priority. Among others, locks on the Mosel river are to be established in Germany to enhance the freight transport within the Greater Region (ibid., 11). The Rhine and Mosel river shall be connected to the Mediterranean Sea by the establishment of a channel to the Saône river (ibid., 12). The aim of the definition of the priority project list was to coordinate the national transport planning and development of the Greater Region among its subregions and to develop focused investment strategies (ibid., 4). The internal and external accessibility was to be fostered - also to contribute to the development of the Polycentric Metropolitan Cross-Border Region (PMCBR) (Interview Planungsgemeinschaft Region Trier 2016).

The main aim of the Schéma de mobilité transfrontalière Luxembourg – Rheinland-Pfalz - Saarland which was developed in 2016 between Germany and Luxembourg is to shift more cross-border commuter transport from the individual car to public transport (Ministère du Développement durable et des Infrastructures de Luxembourg, Ministerium für Wirtschaft, Arbeit, Energie und Verkehr Saarland, and Ministerium des Innern und für Sport Rheinland-Pfalz 2016, 133). The majority of the different cross-border tickets should be merged and the tariffs should be harmonized - also with Belgium and France. Tariff gaps at the border should be overcome. Furthermore, the cross-border tickets are to be valid multimodally (ibid., 48, 58). The Mobiregio platform which offers cross-border travel information on the public transport offer of the Greater Region shall be developed further and advertised more. Furthermore, the platform shall offer advises on cross-border tariffs. Additionally, the location of the P&R infrastructures and carpooling parking spaces shall be mapped on the platform together with the public transport stations. In this context the existing carpooling platforms of the Saarland, Rhineland-Palatinate and Luxembourg shall be grouped into a common platform. Also a mobile app is to be offered (ibid., 82f.,85f.). A working group should take care of the up-to-dateness of the Mobiregio platform. The different transport providers should be coordinated (ibid., 90f.). The informal cooperation between the three regions in the field of public transport shall be expanded and stabilised to meet three or four times a year (ibid., 93). The public transport offer should be expanded between Luxembourg (LUX) and Trier (DE). The cross-border service connections are to be prolonged and new connections are to be established across borders (ibid., 60). More details can be found in a list in the appendix. Furthermore, the Luxembourgish bus lines shall be made accessible from the German side of the Sauertal by foot (ibid., 60). Besides that, other cross-border connections are to be optimized and speeded up to become more attractive for commuters. Therefore P&R infrastructures are to be created in the vicinity of bus stops (see appendix)(ibid., 68f.). Dillingen or Merzig (DE) shall be connected to the Express-bus between Saarbrücken (DE) and Luxembourg (LUX) (ibid., 69). Also several P&R infrastructures in the vicinity of the border are to be established or expanded in Nennig-Zoll, Dillingen, Merzig, Mettlach, Orscholz, Sinz, Sirzenich, Ehrang, Euren, Trier (DE) and Wasserbillig (LUX) (ibid., 97).

Besides the policy documents analysed, it is relevant to know that two new cross-border spatial planning documents are currently being developed which will relate to cross-border transport as well. These are presented shortly in the following.

The **Spatial Development Concept of the Greater Region** (**SDC-GR**) (*Raumentwicklungskonzept Großregion*) is in preparation at cross-border regional level. According to the stakeholders interviewed it shall contain objectives which concern the transport development (Interview Demortier 2016;

Interview Arts 2016; Interview Vidal 2016; Interview Ripp 2016; Interview Sohn 2016). The main aim is to create a Polycentric Metropolitan Cross-border Region (PMCBR) (Interview Chlench 2016; Interview Ripp 2016; Interview Kiffer 2016). There are high expectations on the SDC-GR. It shall not be a study only, but shall contain concrete project descriptions to ensure an implementation. The politicians should actively support the implementation. The SDC-GR is seen as an experiment – if the expectations are fulfilled it would promote the further operational cooperation in other fields of shared interest (Interview Beck 2016). The concept will put a main focus on the core area of the Greater Region around Luxembourg which shows strong cross-border linkages (Interview Schelkmann 2016). In the light of the development of the SDC-GR by the KARE the cooperation with the working group 'Transport' and the other working groups shall be reactivated (Interview Vidal 2016). It was applied for INTERREG funds to develop the SDC-GR.

Furthermore, at cross-border local level a 'Development Concept for the Upper Mosel Valley' (*Entwicklungskonzept Oberes Moseltal*) (DCUMV) is currently developed under the roof of the Greater Region. It involves solely German and Luxembourgish partners and focuses on a smaller territory (Interview Planungsgemeinschaft Region Trier 2016). The DCUMV will contain concrete transport relations which might lead to the definition of concrete cross-border transport projects (Interview Chlench 2016). Therefore also the transport departments of the two countries were integrated in the development of the DCUMV (Interview Schelkmann 2016). The concept was initiated in 2009 by a German funded MORO-project on the landscape network Mosel (*Landschaftsnetz Mosel*). In 2011, the project was complemented by a pre-study on potential fields of cooperation and on the potential cooperation area. In 2016 the main study for the development of the DCUMV was started and three workshops were conducted with regional and local stakeholders – one also on transport development. Additionally, an action programme was to be developed. The concept shall be integrated in the spatial development concept of the Greater Region but focuses on the smaller scale to be able to define concrete projects (ibid.). Until spring 2017, no concrete documents were published. However, high expectations were expressed by the interviewed stakeholders.

The analysis of the cross-border policy documents showed (see **Figure 67**) that no cross-border local policy supports the **linkage of TEN-T with secondary networks**. Compared to the EU policies the promotion of this objective in the cross-border regional policies is also very low (21%).

The improvement of **cross-border infrastructures** is supported by the cross-border regional and local policies to a similar degree, which is a little lower than the support in the EU policies.

However, the improvement of **cross-border services** is strongly supported by all cross-border policy documents and considered more important than in the EU policies. Thus, cross-border transport services seem to be of outmost importance for the Greater Region as they are particularly promoted.

The policies from the cross-border regional and cross-border local level do not differ much in their contribution to cross-border transport with the exception of the objective of linking the TEN-T with secondary networks.

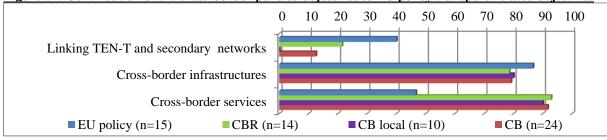


Figure 67: Contribution of the cross-border policies' objectives to EU policy transport-related objectives

When comparing the cross-border policies' attitude towards the cross-border transport objectives with the latter's promotion in the EU policies (see **Table 49**) there is a high similarity in the objective of improving cross-border infrastructure (7.5% deviation) but a strong difference in the field of cross-border services (45% deviation) which is promoted strongly by the cross-border documents.

Policy level	TEN-T and secondary networks	<b>CB</b> infrastructure	CB services	All categories
<b>CBR</b> (n=14)	18.6	8.1	46.2	22.1
CB local (n=10)	40.0	6.7	43.3	26.7
<b>CB</b> (n=24)	27.5	7.5	45.0	23.5

 Table 49: Average deviation of the cross-border policies from the EU policies

Source: Author, Kaiserslautern, 2017.

The experiences of the interviewed stakeholders show that the cross-border transport-related objectives - defined in cross-border policies and initiatives – have been implemented into practice through different procedures. Some are implemented directly by the cross-border cooperation bodies, others first have to be integrated in the domestic policies of the member states and can then be implemented. Others lead to transnational conferences and the further promotion of common aims.

According to Harmeling the cross-border regional policy documents contain proposals and advices that often relate to ongoing transport projects and confirm their relevance to facilitate the further implementation (Interview Harmeling 2016). However, the concrete influence of the cross-border regional policies is discussed controversially by the interviewed stakeholders from the regional administrations. According to the *Planungsgemeinschaft Trier*, although being political decisions of the Summit, the policy documents needed to be translated into national policies first before they have a real impact on cross-border transport in practice (Interview Planungsgemeinschaft Region Trier 2016). As the regional administrative levels are included in the cooperation within the Summit of the Greater Region, the Summit is said to be competent in deciding about and implementing small-scale crossborder projects (Interview Jacquey 2016). Thus, the influence of the policies on the cross-border transport practice is expected to be high. Additionally, it is ensured according to Harmeling, that the decisions taken in the committees of the Greater Region will not contradict the regional policies of the involved member states: the documents are developed by the stakeholders from the domestic administrations in consensus. However, it could happen that general objectives were shared, but the implementation was hampered because of financial constraints (Interview Harmeling 2016). Weidenhaupt thinks that the cross-border policies which were developed in the Greater Region are not implemented properly - not because financial constraints but - because of a missing political will. Furthermore, the ministers responsible for the Greater Region should dwell on the definition of objectives in the Greater Region more before forwarding them to the responsible regional ministries (Interview Weidenhaupt 2016). Because of these challenges Demortier proposes to develop bilateral cross-border initiatives which could complement the policies developed by the Greater Region (Interview Demortier 2016). This is acknowledged by Hilt: in the cooperation at cross-border regional level it would be focused more on an exchange of practices than on finding a solution for a common challenge (Interview Hilt 2016; 2017). Schreiner considers it to be very relevant that the transport stakeholders in the Greater Region exchange information on aims and practices and take this information into account when establishing domestic policies and projects (Interview Schreiner 2016). The *Planungsgemeinschaft Westpfalz* does not expect that the documents developed in the working groups of the Greater Region had a direct influence on cross-border transport. Instead because of the needed consensus it could only be agreed on the lowest common denominator. Therefore, the policy documents only consisted of a description of all undisputed existing national and regional transport projects. No new initiatives would only be expected if funds were offered (Interview Clev and H. J. Fette 2016). Ries from the IPR, however, sees an influence of the cross-border policy documents on

cross-border transport because they were also **discussed** in the domestic parliaments of the regions (Interview Ries 2016). According to several stakeholders interviewed, it is of added value when the cross-border documents are **approved politically** e.g. by the Summit of the Greater Region (Interview Planungsgemeinschaft Region Trier 2016). Besides that, the **development process** of such documents leads to benefits for the further **cooperation** particularly when several cross-border organisations of the Greater Region are involved (Interview Beck 2016). This is acknowledged by Hilt (Interview Hilt 2016; 2017).

The SMOTs - **cross-border local policy documents** - were mentioned by almost all interviewed stakeholders as an important policy document for cross-border transport coordination. In the development process of the SMOT between Luxembourg and Germany not only stakeholders from the transport ministries but also spatial planners were involved to ensure linkages with the parallel developed Development Concept for the Upper Mosel Valley (Interview Vidal 2016; Interview Schelkmann 2016). As the SMOT defines **short, medium and long term goals** and it is considered by several interviewed stakeholders as an important cross-border transport strategy (Interview Besch and T. Juttel 2016; Interview Kies 2016; Interview Dostert 2016; Interview Ludwig 2016; Interview Chlench 2016; Interview Ripp 2016; Interview Schelkmann 2016; Interview Ball 2016). For Vidal, the coordination and implementation of the other two first SMOTs has been disappointing so far. For the future it is expected that higher benefits will be reached through a joint implementation of the objectives (Interview Vidal 2016).

According to Kiffer, the aim of the *Eurodistrict* SaarMoselle to improve the practice of cross-border transport within its cooperation area - which was defined in its cross-border local policy documents - is said to have come true in practice, among others, through the development of a **cross-border bus line** (Interview Kiffer 2016).

Another way of influencing cross-border transport at cross-border local level was presented by the city network *Quattropole*: it prepared a **resolution of common interest** to be connected better to the European long-distance rail transport together with the *Eurodistrict SaarMoselle*, the French city-network *sillon lorrain* (Thionville, Metz, Nancy, Epinal) and the city-network *Tonicités* as well as the city of Kaiserslautern (DE). The resolution was send to the different national transport providers, the stakeholders involved in the Summit of the Greater Region and the European Commission. Therewith the interest of these cities in the development of the European transport networks was promoted (Interview Sohn 2016). Based on the contact to the European Commission, a **working conference** on the Atlantic and North-Sea Mediterranean TEN-T corridors was organized to network with other stakeholders and to work out the further cooperation needs (ibid.). Besides that, it was considered to be difficult for cities to influence the cross-border transport development with their cross-border local policy documents because the city-networks do not have the competences to develop transport infrastructures and services across borders. Therefore they have to focus their work on the representation of common interests and the **lobbying** at higher competent administrative levels (ibid.).

75% of all cross-border policies defined **concrete cross-border projects**. Most were defined at crossborder local level (90%) and less at cross-border regional level (64%). This is a very high percentage compared to the member states' policy documents. The **cross-border regional policies** defined concrete cross-border projects for rail, road or waterway infrastructure or bus connections. Several documents mentioned the **rail** tracks between Bruxelles, Luxembourg and Strasbourg; the connection between Trier and Metz; as well as between Baudrecourt, Saarbrücken, Kaiserslautern and Mannheim. Harmeling underlines the significance of the POS-Nord track between Baudrecourt and Mannheim in the crossborder regional policy documents because the track is part of a TEN-T corridor (Interview Harmeling 2016). Furthermore, the **motorway** A31 between Nancy and Luxembourg is an often-named project.

The **cross-border local policies** defined concrete cross-border projects concerning **rail**, **road** and **P&R** infrastructures as well as **public bus transport**. Some of these projects have also been named by the cross-border regional policies. Thus, a certain relation and influence might exist.

The interviewed stakeholders frequently evaluated the **influence** of the cross-border regional **priority** projects list<sup>57</sup> - described above - on the concrete practice of cross-border transport: Schelkmann thinks that the definition of transport priority projects of the Greater Region will influence cross-border transport as far as the involved stakeholders are competent to implement these projects (Interview Schelkmann 2016). Harmeling evaluates the development of concrete projects to be more effective than an all-embracing cross-border transport strategy because it is difficult to develop a concrete document which is agreed by all involved countries (Interview Harmeling 2016). Hilt does not expect a direct effect of the list on the French cross-border transport because the French national policy documents had **different project priorities.** Therefore, he considers it not to be likely that the defined projects will be implemented in the near future. Bilateral cooperations would be necessary instead (Interview Hilt 2016; 2017). In order to implement the projects, the politicians needed to integrate the aims into their domestic policies - which has turned out not to be often the case so far. The cross-border regional policy documents themselves are said to neither have a direct impact on the practice nor on the domestic national transport planning (Interview Planungsgemeinschaft Region Trier 2016). Also Ludwig and Chlench think that the list has not been perceived as direct impetus for the implementation of these projects by the transport departments so far (Interview Ludwig 2016). This is because the list would not contain **newly created cross-border transport projects** but consisted of predefined national priority projects with relevance for the cross-border region. As these national projects were already targeted by national policies their implementability is expected in most cases. Some projects, however, are very visionary and not expected to be implemented in the close future (Interview Chlench 2016). Sohn also considers that further steps need to be taken until all these priority projects will be implemented in practice because it was a complex issue consisting of a multitude of challenges. So far no progress has been communicated to the public (Interview Sohn 2016). Additionally, the implementation of most projects has been challenged according to Arts because of a lack of financial means (Interview Arts 2016). Schelkmann, acknowledges financial challenges. The KARE does not consider being responsible for the implementation of the projects. Instead it was involved to ensure the harmonization of the projects with the spatial development of the Greater Region towards a PMCBR. According to Schelkmann, the working group 'transport' and the respective domestic ministries should ensure the implementation (Interview Schelkmann 2016). The projects defined are considered to be relevant for the Greater Region. The implementation depends on the project sponsors and decision-makers (Interview Ball 2016).

However, the document is said to have initiated positive soft effects. Among others, the Greater Region positioned itself better to the outside – in relation to the EU but also the national administrative levels (Interview Schelkmann 2016). The *Planungsgemeinschaft Region Trier* considers the list of priority projects to have had a high value and relevance for cross-border transport as it was **politically adopted** and stands for the **coordination** at the **comprehensive level** of the Greater Region (Interview Planungsgemeinschaft Region Trier 2016). Sohn acknowledges the importance of this document as well because it led to a **decision** on the most important challenges and projects within the Greater Region (Interview Sohn 2016). According to Vidal, the main added value of the development process of the priority project list was the **exchange** between the regions in the field of transport including transport and spatial planning representatives and the working groups (Interview Vidal 2016). This is acknowledged by Ludwig. The exchange showed the different interests and priorities of the involved

<sup>&</sup>lt;sup>57</sup> The interview statements relate to the cross-border regional policy document "Vorrangige Verkehrsprojekte im Hinblick auf die metropolitane Entwicklung der Großregion".

regions. Therefore, the developed list is considered to be a good **basis for further cooperation** (Interview Ludwig 2016).

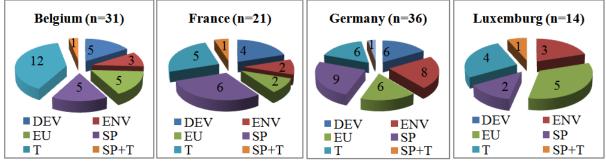
The next section presents the contribution of the cross-border policy documents and the domestic policy documents to cross-border transport.

# Contribution of the domestic and cross-border policy transport documents to cross-border transport

This section compares the promotion of cross-border transport in the policies of the countries involved in the Greater Region and in the produced cross-border policies.

**Figure 68** illustrates the slightly different composition of the analysed policy documents of the member states. This shows that in the four countries the transport development is influenced to varying degrees by different policy fields, based on the domestic administrative, political and transport planning culture. The Belgian policies contain a high number of policies with transport focus. Thus, the transport development is mainly steered in its own policy field. In France a high degree of spatial planning documents contained transport aims. In Germany, the degree of environmental policies which relate to transport is higher – particularly compared to Belgium and France. In Luxembourg, many EU related policies were taken into account whereas no development policies were analysed. These differences need to be taken into account when comparing the four countries' contribution to cross-border transport.

Figure 68: Composition of the domestic policy documents



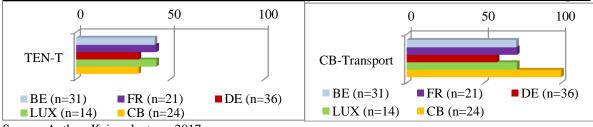
Source: Author, Kaiserslautern, 2017.

The analysis of the domestic documents shows that the policies refer to the Greater Region with a different frequency. Lorraine and particularly the new region Grand-Est relate to the Greater Region but also see a high relevance of cooperating with the Basel region and Baden-Wuerttemberg. As has been stated before, the Wallonia, including the province of Liège and the German Speaking Community are strongly focused on cross-border cooperation in the Euregio with the Netherlands as well as North-Rhine-Westphalia and less on cross-border cooperation within the Greater Region. For the Belgian province of Luxembourg, however, the cooperation in the Greater Region is very important. The country Luxembourg, being located in the centre an being surrounded by the Greater Region strongly promotes the cooperation in the cross-border region. It is not involved in any other small-scale cross-border region. Therefore, the Greater Region has a high relevance and is mentioned frequently in its policy documents. The Saarland and Rhineland-Palatinate are very interested in the cooperation within the Greater Region. However, the interest of the subregions of Rhineland-Palatinate that do not border Wallonia, Lorraine or Luxembourg directly is very low. Rhineland-Palatinate is also involved in a cooperation in the Upper-Rhine Region. This cooperation has a similar relevance for the region as the Greater Region.

According to Trinemeier the **political will** to contribute to cross-border transport and a European transport network is said not to exist to a similar extent in all member states and their administrative levels (Interview Trinemeier 2016). As can be seen in **Figure 69** the analysed policy documents of Belgium, France and Luxembourg mention the TEN-T to a similar degree, only the German and cross-

border documents mentioned it less often. Cross-border transport was named more frequently than the TEN-T. Cross-border transport is mentioned by more cross-border documents than domestic documents. Again, the German documents mentioned cross-border transport less frequently than the other countries.

Figure 69: Relation of the domestic and cross-border policies' to the TEN-T and cross-border transport

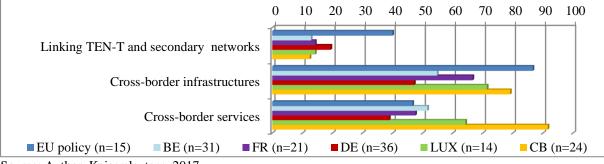


Source: Author, Kaiserslautern, 2017.

The TEN-T were mentioned the most in the spatial planning documents of the member states (65%). The relation to the TEN-T of the domestic policies developed with the EU, and the transport policies is much lower (35% and 31%). The domestic development documents mention them least (12%). Thus, the TEN-T seem to be a concept that is strongly related to spatial planning and less relevant in the domestic pure transport policy documents.

Also, cross-border transport is mentioned most in the spatial planning policies (88%), however, followed, with a shorter distance, by the transport policies (57%). Cross-border transport is also mentioned more frequently in the domestic development policies (39%) than the TEN-T.

### Figure 70: Contribution of the domestic and cross-border policies to cross-border transport



Source: Author, Kaiserslautern, 2017.

When comparing the member states' policies' contribution to the three objectives relevant for crossborder transport (see **Figure 70**) it can be seen that all member states consider the **linkage of TEN-T and secondary networks** less relevant than the EU policies. The German policy documents mention this objective most frequently, although having named the TEN-T in general least. This objective is least relevant in the cross-border cooperation documents. Also, not all EU policies mention this objective, still, it is much more relevant than in the member states' policies. This suggests the assumption that the domestic policies do not expect benefits from the TEN-T for the small-scale local or regional crossborder transport.

The improvement of **cross-border infrastructures** is promoted most by the cross-border documents. They deviate least (7.5%) from the EU policy objectives'. The member states' policies' contribution to this objective varies. All are below the EU policies' relevance. Most support comes from the Luxembourgish and French documents (15.2% and 20% deviation). The German and Belgian policies (39.4% and 31.8% deviation) do contribute to this objective least. According to Vidal Luxembourg motivated its neighbouring regions to develop special bilateral cross-border transport policies that define cross-border transport development aims. Thereby the country is strongly involved in the shaping and coordination of the transport connections to its neighbouring regions (Interview Vidal 2016). The strong commuter flows between France and Luxembourg might explain the strong French motivation to

improve the cross-border infrastructures whereas for Germany not many infrastructure investments are planned across borders because of a lower pressure. Thus, the domestic needs seem to be decisive for the promotion of cross-border transport.

When it comes to the promotion of **cross-border services** the cross-border policies are the strongest and promote it much stronger than the EU policies so that they deviate most from the EU policies' support. All member states, except of Germany, consider the objective to be more relevant than the EU policies do. Still cross-border services are promoted less frequent than cross-border infrastructures.

In the three objectives that are relevant for cross-border transport, the cross-border policies resemble most the Luxembourgish policies' promotion of the objectives. This might be explained with the involvement of Luxembourg in almost all existing cross-border documents, except of one. Further reasons for a high Luxembourgish influence might be the central location of Luxembourg in the Greater Region and the high relevance of cross-border transport because of the high amounts of commuters which flow to Luxembourg every day. In general, however, all domestic policies, which define cross-border transport objectives have a certain influence on the objectives of the cross-border transport policies.

The German policies from the subregional level of Rhineland-Palatinate contribute to **all three crossborder transport-related** objectives most, in Belgium the regional level policies and in France the intermunicipal level policies. These policy levels seem to contribute most to an improved cross-border transport. However, when taking into account the transport planning competences of these levels (see **Table 38** and **Table 39**) this assumption cannot be acknowledged for Germany and France: the subregional level of Rhineland-Palatinate as well as the intermunicipal level in France do not have competences in the fields of transport services. In France they are only responsible for local road infrastructure. The German subregional planning regions can propose infrastructure investments in all transport modes but are only competent for subregional roads. The regional level in Belgium, however, has a broad competence in the field of transport services and national road and inland waterway infrastructures, however, not for railroads. The strong relation of the French inter-municipal and German subregional level to cross-border transport might be an evidence for their high concernment of crossborder transport flow because of which they try to lobby and convince other administrative levels with more competences to facilitate cross-border transport and minimize the experienced challenges.

The comparison of the promotion of the cross-border transport-related objectives in the different **policy types** shows that the **linkage of TEN-T with secondary networks**, is promoted most by the **spatial planning documents** (31%) and almost least, before the environmental and development policy documents (2%), the transport policies. They have a very low ambition (7%) to contribute to this objective. The domestic policies developed with the EU promote this to a stronger degree (20%).

The spatial planning documents also promote most frequently the enhancement of **cross-border transport infrastructures and services** (81% respectively 69%), in both cases they are followed by the transport policies (48% respectively 43%). For the documents developed in cooperation with the EU, cross-border infrastructures are more relevant (40%) than the cross-border services (15%). The domestic environmental and development policies promote the improvement of cross-border infrastructures and services to a low but similar degree (32% and 27%).

This comparison shows that the spatial planning policies mostly aim at improving cross-border transport, even more than the pure transport policies which often have a more national focus. The EU related policies mainly aim at improving cross-border infrastructures. This is probably because the EU financial support is mainly available for these purposes as this is considered to be more relevant for economic growth than investments in transport services.

Coming back to the different composition of the member states' policy documents which were analysed, the French policies – consisting of a higher degree of spatial planning documents (see **Figure 68**)– would be expected to contribute more to cross-border transport objectives, it can be seen that they promote the linkage of the TEN-T and secondary networks to the same degree. The improvement of cross-border infrastructures and services, however, is promoted less than in the Luxembourgish policies which consist of the lowest degree of spatial planning policies. This shows that the slightly different composition of policies in the four countries does not seem to influence the domestic contribution to cross-border transport to a decisive degree – there are more influence factors – such as the general domestic attitude, the domestic needs and the discourse which matter as well.

The definition of **concrete cross-border projects** in the policy documents might indicate a higher plausibility of implementation and thereby a potential higher contribution to cross-border transport. In the comparison of the member states' policies (see **Figure 71**), the French documents most often define concrete projects, followed by the Belgian policies. Less than 40% of the Luxembourgish and German policies define concrete projects. The most significant administrative level for the definition of concrete cross-border projects in the policies varies among the member states (see **Table 50**). In France the intermunicipal documents are most concrete and name projects, in Belgium the regional documents. In Germany, all subregional policy documents of Rhineland-Palatinate define concrete projects. These are same administrative levels of the three countries which promoted cross-border transport the most. This shows the high relevance of cross-border transport on the lower administrative levels of France and Germany.

Figure 71: Definition of concrete cross-border projects of the domestic and cross-border policies

	0	20	40	60	80	100
	-1					
	concrete projects					
■BE (n=31)	■FR (n=21)	■ DE (n=36)	LI	UX (n=14)	<b>_</b> _C	CB (n=24)

Source: Author, Kaiserslautern, 2017.

Most concrete cross-border projects, however, are defined by the cross-border policy documents.

The domestic **spatial planning documents** most frequently named concrete cross-border transport projects (77%), followed by the transport planning policies (58%). The mentioning of concrete transport projects in the general environmental and development strategies (20%) and policies developed with the EU (0%) is rather low respectively non-existent.

Table 50: Leve	el of definition of conc	<u>crete cross-border proje</u>	ects by the domestic policies

BE	national	regional	subregional	
DL	45%	58%	38%	
FR	national	regional	subregional	intermunicipal
ГК	43%	50%	50%	100%
DE	national	regional (RLP/SL)	subregional	
DE	8%	33/55%	100%	
LUX	national			
LUX	36%			

Source: Author, Kaiserslautern, 2017.

As can be seen in **Table 51** the cross-border policy documents show the highest average deviation from the EU policies (taking into account all transport-related categories). The domestic policies have a lower deviation. The German and Luxembourgish policies are on average most similar to the promotion of the overall transport-related objectives. However, also the policies from France and Belgium are close to

this percentage. Thus, no large differences can be observed between the member states in their overall contribution to the EU objectives. In nine objectives the domestic policies significantly remain under the relevance of the EU policies, in nine cases they support the objectives more than the EU policies (see **appendix**). This shows that the general contribution of the member states varies strongly from the EU policies. Only in five objectives the national policies promotion is similar to the EU policies. However, the member states contribution to the different objectives partially varies to a decisive degree - independent of the EU policies' promotion - which might be caused by different transport planning approaches and the overall understanding of transport planning.

Policy level	TEN-T and secondary networks	CB infrastructure	CB services	All categories
BE (n=31)	27.1	31.8	4.9	18.3
FR (n=21)	25.7	20.0	1.0	17.7
DE (n=36)	20.6	39.4	7.8	16.1
LUX (n=14)	25.7	15.2	7.8	16.1
CB (n=24)	27.5	7.5	45.0	23.5

Table 51. Average deviation of the member states'	policies and cross-border policies from the EU policies
Table 51. Average deviation of the member states	policies and cross-border policies from the EO policies

Source: Author, Kaiserslautern, 2017.

To sum up, the cross-border policies strongly promote the enhancement of cross-border transport and define concrete projects which increases the implementation probability. Although not naming many concrete projects the Luxembourgish policies promote cross-border transport most often whereas the German domestic policies contribute to it least, except of the linkage of TEN-T and secondary networks.

The next section describes challenges which hamper the development and implementation of (crossborder and domestic) policy documents and discusses their direct influence on cross-border transport.

# Challenges in the development of cross-border policies and the influence of the domestic and cross-border policies on cross-border transport

In this section the challenges which hamper the development of common cross-border policies and the influence of domestic and cross-border policies on cross-border transport are described based on the challenges perceived by the interviewed stakeholders in their working practice.

### Challenges in the development of cross-border policies

As the Greater Region is **very large** and entails several internal borders, **different needs**, focuses and challenges are said to make it difficult to coordinate the transport development of the whole cross-border region at once. Transport projects on one border might not be interesting for regions which do not benefit from these projects (Interview Ludwig 2016; Interview Antoine 2016). The rural nature of the Belgian province of Luxembourg, for instance, is said not to be comparable with other parts of the Greater Region. It is considered to be difficult to develop a common transport strategy and to offer an efficient comprehensive public transport service network which unites more densely populated and rural regions (Interview Castagne 2016). This is acknowledged by Trinemeier. He additionally sees the challenge to **justly prorate the investment costs** in regions with different initial situations (Interview Trinemeier 2016). The different member states' transport priorities such as the focus of Luxembourg on the expansion of public transport whereas in France, the expansion of the motorway is a high priority, lead to **time consuming** and **costly procedures** – even in bilateral cooperations – because proposals need to be revised several times until an agreement can be reached (Interview Kies 2016; Interview Chlench 2016; Interview Vidal 2016).

It is questioned if the territory of the Greater Region has been growing solely to gain in critical mass or if a real cooperation of all subspaces is envisaged (Interview Castagne 2016): the inhabitants of the Greater Region often do not perceive their **affiliation** to the cross-border region when they live outside the original core area and do not regularly cross the border (Interview Jacquey 2016). The territorial

parts of the Greater Region are said to be attracted by different poles. The region around Liège, for instance, is attracted by Luxembourg, but also Aachen and Maastricht which do not belong to the Greater Region but to the Euregio Maas Rhein (Interview Jacquey 2016; Interview Beck 2016).

Other actors see the size and the composition of the Greater Region as an advantage in the **competition** with other EU border regions (Interview Beck 2016; Interview Arts 2016; Interview Clev and H. J. Fette 2016). To represent common aims and **lobby** on national or European level, the size of the cooperation space is considered to be advantageous (Interview Clev and H. J. Fette 2016). Additionally, the subregions of the Greater Region could complement each other e.g. in terms of demographic and economic potential. However, the **diversity of subregional needs** makes the definition of common aims difficult and can lead to unidirectional challenges. An example is the strong economic growth of Luxembourg besides shrinking rural regions that are located far away from this growth pole and suffer from out migration (Interview Beck 2016).

Harmeling thinks that the extension of the cooperation space to whole Rhineland-Palatinate was very reasonable for a cooperation in the field of transport as also large scale transport infrastructure developments are negotiated (Interview Harmeling 2016). Clev and Fette acknowledge the importance of large scale infrastructure projects and strategic reflections in the field of freight transport and the definition of hubs for the comprehensive territory of the Greater Region. However, they do not expect to reach a shared interest of all entities of the Greater Region on small-scale cross-border projects (Interview Clev and H. J. Fette 2016). Chlench thinks that Greater Region is too large for the targeted support of cross-border cooperation because most fields of cooperation are not of interest for the whole region but concern sub spaces (Interview Chlench 2016). Related to this, Ludwig considers that - in the field of transport - the larger cooperation space made the cooperation more difficult because of **missing** relations and diverging interests between faraway parts of the Greater Region (Interview Ludwig 2016). This is acknowledged by Clev and Fetten (Interview Clev and H. J. Fette 2016). They consider the Greater Region to be more similar to a common development area than a cross-border cooperation region. It would be easier to focus on the exchange of experiences in shared interests independent of the borders (ibid.). Also the Planungsgemeinschaft Region Trier considers it to be thematically difficult to integrate the whole territory of the Greater Region – particularly the regions which are located far away from the own region - in all strategies or projects (Interview Planungsgemeinschaft Region Trier 2016). Schreiner, considers the cooperation space of the Greater Region too large for cross-border cooperation as well (Interview Schreiner 2016). However, the current already large territorial scope was politically decided and cannot be undone (Interview Schelkmann 2016).

Because of these challenges in the past it has not been compulsory on the working level of the Summit of the Greater Region to integrate stakeholders from the comprehensive territory in all issues (Interview Planungsgemeinschaft Region Trier 2016). Spatial coordination strategies across borders can put a focus on the core areas with strong economic linkages to develop a special governance structure in this area (Interview Schelkmann 2016). Political decisions, however, have to be taken by all involved entities - in order to be able to draw on the regional competences (Interview Jacquey 2016; Interview Planungsgemeinschaft Region Trier 2016).

Several interviewed stakeholders favour a **bilateral coordination** of the transport development because it is considered to be more effective and detailed. Cross-border regional coordination is said to be cumbersome and take a **long time** for negotiations and implementation (Interview Arts 2016; Interview Besch and T. Juttel 2016; Interview Dostert 2016). However, the main cross-border transport development objectives are said not to differ much among the member states. Special objectives though – particularly those concerning long distance transport connections – are said to differ partially to a strong extent (Interview Kies 2016; Interview Arts 2016; Interview Ries 2016).

To sum up, there have been several attempts to coordinate the transport development across borders on a cross-border regional level. However, because of the cross-border region's large spatial scope, this turned out not to be easy: therefore, it is often preferred to coordinate the development only bilaterally because of different needs. So at least in the field of small scale, short distance transport, the reasonableness of the cross-border region as coordination arena is questioned.

Because of the **different initial situations** each part of the Greater Region is said to develop its own policies and there is **not much contact** between the persons responsible for transport across the border (Interview Antoine 2016). Local, regional (the Summit of the Greater Region) and **European stakeholders** should be involved in a cooperation to improve the cross-border transport system of the Greater Region. The **interests of the national levels** might be different and contradict the cross-border objectives. Furthermore, the **decisions** on transport policies are said to be usually taken **centrally**, in a location far away from the border and thus often without knowing the transport challenges at the border (Interview Sohn 2016; Interview Demortier 2016; Interview Besch and T. Juttel 2016). The high **dependence on the national level** in the field of transport is said to strongly hamper the implementation of a common regional spatial vision (Interview Ball 2016).

As indicated in the document analysis, often the domestic transport planning documents would not take into account the neighbouring territories but tended to **focus** on their **national territories**. Often maps did not display more than the regions and concepts excluded the cross-border dimension. Schelkmann experienced that the neighbouring regions were often involved in the development of a new spatial policy document in a very **late stage** so that the policy could not be coordinated efficiently with the neighbouring regions anymore (Interview Schelkmann 2016). Also Sohn, Demortier, Besch and Juttel criticized that the transport planning systems were often strongly oriented on the **national networks** which did not take into account transport cooperation across borders (Interview Sohn 2016; Interview Demortier 2016; Interview Besch and T. Juttel 2016).

The remaining **dependence on the national level and focus on the national territories** shows that the transport planning in all four countries is very path dependent and needs time to adapt to changed EU-related framework conditions. This challenges a coordinated transport development across borders.

The exchange between the working groups of the Greater Region is said to partially depend on the **mutual relations** between the involved stakeholders. Frequent **changes** of the responsible persons hampered a smooth cooperation. Generally, the **exchange** should be supported to ensure a mutual coordination of the objectives in the different thematic fields of cross-border cooperation (Interview Vidal 2016).

Cross-border policies could only include issues which are in the **competence** of the involved entities. An agreement at cross-border regional level is considered to be an important basis for negotiations with the national levels (Interview Besch and T. Juttel 2016). According to the *Planungsgemeinschaft Trier* the influence of the KARE and the other cross-border regional working groups and their policy documents on the political decision-makers should be expanded further. The developed cross-border policies should be taken into account more by the politicians and planners of the member states because these are responsible for the final implementation of transport projects (Interview Planungsgemeinschaft Region Trier 2016). If this is not the case, the domestic policy documents are expected not to have a high influence on the cross-border transport reality.

According to these statements, the influence of the **developed transnational institutions** and their developed cross-border policies on the planning practitioners and politicians is not as high as wished because of missing **competences** and bindingness of the documents. Thus, the implementation of cross-border policies depends on the competences of the cooperation members.

### Challenges in the influence of the domestic and cross-border policies on cross-border transport

It was considered to be very difficult to decide on a small number of concrete transport projects at crossborder regional level because of the region's territorial size. Therefore, a list of priority projects was developed which names a **high number of projects** so that every region had the chance to introduce its priority projects. The concrete influence of that cross-border policy document on the practice of crossborder transport is questioned by several stakeholders, as mentioned earlier, but also because it has not been developed further since a while (Interview Besch and T. Juttel 2016).

As stated above, the cooperation area does not seem to have an appropriate size for the coordination of the small-scale transport development because the developed cross-border regional policies were described not to be effective and difficult to implement.

Harmeling thinks that, despite shared transport objectives, most countries - except of Luxembourg – could not implement all objectives because of **financial constraints** (Interview Harmeling 2016). Therefore, the definition of concrete projects in policy documents would be avoided (Interview Besch and T. Juttel 2016). Although the number of relevant cross-border transport projects of the Greater Region was reduced to some common priority projects, their implementation is still said to be challenged because of a **lack of money** (Interview Beck 2016; Interview Arts 2016). The low availability of **EU funds** which support the transport projects might have led to **competitions** between the countries (Interview Arts 2016; Interview Ries 2016). Because of strategic reasons not all transport relevant investments are said to have been coordinated (Interview Bost 2016; Interview Clev and H. J. Fette 2016). The competition between the regions could lead to challenges in the **implementation** of the commonly decided transport priority projects of the Greater Region (Interview Arts 2016; Interview Clev and H. J. Fette 2016). Competition often existed in **nodal infrastructures** like air ports, logistics hubs etc. Linear infrastructures relied on the cooperation of different partners (Interview Clev and H. J. Fette 2016).

Besides that, the supported transport-related objectives are said to be strongly **dependent** on the governing **political parties** (Interview Ludwig 2016). The territorial reform in France might have changed the political interests and priorities of the new responsible persons because it became a larger region (Interview Sohn 2016). Thus, the implementation of the cross-border transport policy aims and EU policies depends on the initial political situation of the member states involved in the Greater Region.

Additionally, **private investments** which do not involve the public sector might not be coordinated in the policy documents but influence the transport practice. An example is the logistical freight platform in Bettembourg which is said to be strongly supported by Luxembourg. These investments are not coordinated with the French side although a strong increase of trucks on the French roads is expected (Interview Bost 2016).

The interviews with the stakeholders from the different administrative levels and cross-border institutions show that even if some policies regularly refer to cross-border transport and define concrete aims and projects, this does not ensure their implementation in practice. The contribution of the domestic policies on the practice of cross-border transport, often said not to be coordinated efficiently across borders, strongly depends on the competences of the administrative levels (presented in **chapter 6.3.2**) - which strongly vary between the different member states - and the policy's concreteness. Besides that, local pressures and needs influence the implementation.

Cross-border policies focus more on cross-border connections than pure domestic policies. However, the practical contribution of these cross-border policy documents on cross-border transport might be challenged by several factors. The influence of the cross-border regional policy documents was said to be rather low because of their low level of concreteness and high number of involved stakeholders.

Bilateral cross-border documents were said to be more effective. The influence of cross-border documents was said to be higher when the policy makers were competent in transport planning. However, often the cross-border policies' objectives first needed to be integrated in domestic policies before they could spread a practical influence. Thus, they are dependent of the domestic policy makers, the available funds and the political will and thus often do not have a direct influence once they are developed. However, the cross-border policy documents were also said to acknowledge the relevance and further implementation of ongoing projects and coordinate the domestic projects of different countries. Additionally, they might be a stimulus for further cross-border transport coordination and projects because gathering stakeholders from different countries and facilitate an exchange of information on the domestic policies.

This analysis gives a first overview on the support of the different administrative levels policies and cross-border policies towards cross-border transport. After a final evaluation of the influence of the EU policy on the domestic and cross-border policy transport documents in the next chapter the analysis will go a step further and look into concrete cross-border projects and initiatives which have been implemented in the field of cross-border transport within the case study area.

# 6.3.4 Formal influence of EU policy on domestic and cross-border policy transport documents

The aim of this chapter is to evaluate the formal top-down implementation of EU policies in the domestic and cross-border policy transport documents which have been presented in the last chapter. The evaluation is based on statistical data which was won in the document analysis and expert interviews with persons working in the different transport, spatial planning or cross-border cooperation administrations of the involved member states, or cross-border cooperation bodies.

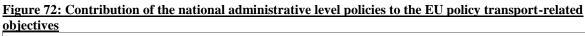
The opinions of the interviewed stakeholders are compared with the statistical findings. It sometimes turned out to be difficult for the interviewees to assess the actual origin of the transport objectives – be it the European or national level. As already addressed in **chapter 2**, Europeanisation is a very complex process and does not solely take place in a top-down manner because the EU policies have been influenced and developed by the member states. However, in the following it is tried to focus on the top-down influence because this is the research objective of this dissertation. In the analysis it is differentiated between the national, regional and subregional administrative level. The main focus is laid on the promotion of cross-border transport.

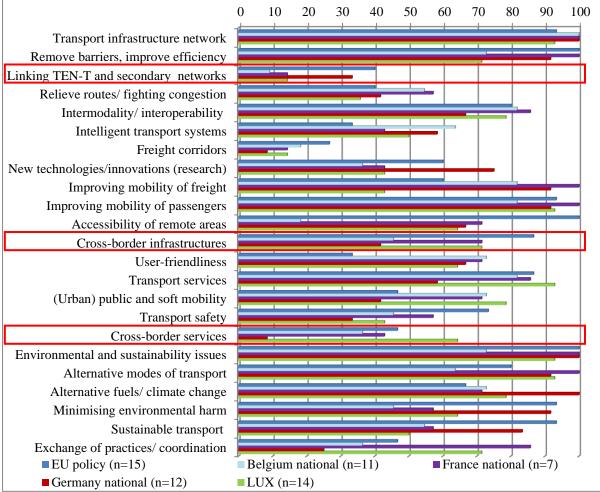
#### Influence of EU policies on national policies

As can be seen in **Figure 72** some strongly promoted transport objectives of the EU are also promoted by the national levels, others are promoted less. Thus, the influence of the EU seems not always to be ensured on the national levels. Besides that, there are several objectives which are less important for the EU but very often mentioned in (some) national policies, like the objectives of an increased userfriendliness of transport or an enhanced freight mobility.

When looking at the objectives of improving **cross-border infrastructures** and **cross-border services** (see **Figure 72**) the member states' national policies support these aims to a similar degree as the EU policies, with the exception of Germany. In both categories, particularly cross-border services, the German national documents do not react on the EU policies' promotion. The Luxembourgish national policies, however, strongly support the objectives. According to Vidal and Sohn, Luxembourg is so supportive because of the high numbers of cross-border commuters flows into the Luxembourgish transport system (Interview Vidal 2016; Interview Sohn 2016). The **domestic needs** are decisive for the political support of cross-border transport. The German national level focuses stronger on the linkage of TEN-T with secondary networks and is less concerned by cross-border commuter flows despite a

strong EU pressure. Another reason might be the small territorial size of Luxembourg compared to Germany. As the whole country is concerned, and there are no regional and subregional administrative levels, the national Luxembourgish policies are **responsible** to cope with cross-border transport. In Germany, this topic might be addressed more on the lower, more concerned, administrative levels. This will be analysed in the next section.





Source: Author, Kaiserslautern, 2017.

The French, Luxembourgish and German policies' overall deviation from the EU transport-related objectives is similar, but the Belgian policies seem to be less adjusted to the EU policies (see Table 52). This statistical result is acknowledged by the opinion of Demilie, who thinks that the national Belgian transport policy documents are not strongly influenced by the EU policy objectives (Interview Demilie 2016). Hilligsmann from the GSC of Belgium calls for a stronger coordination of the domestic technical norms in the field of transport by the EU as these technical barriers would hamper a fluent cross-border transport (Interview Hilligsmann 2016).

Table 52: Average deviation of all categories of the member states' national policies

Belgium national (n=11)	21.5
France national (n=7)	15
Germany national (n=12)	16.8
Luxembourg national (n=14)	15.7
Source: Author Kaiserslautern 20	)17

As mentioned in the previous section, **France** wants to efficiently make use of EU funds, therefore, according to Bost, the national policies are developed to be in line with the EU objectives. However, there is no strong reference to the TEN-T corridors (Interview Bost 2016). This is acknowledged by the statistics as, overall, the French national policies seem to be most similar to the EU policies' aims, with an average deviation of 15% (see **Table 52**). The contribution of the French national policies to the linkage of TEN-T and secondary networks, is, similar to the other member states rather low. This objective, however, is also not a very popular EU policy aim. Here the member states' policies seem to be influenced by the low promotion at EU level.

According to Besch and Juttel, most national **Luxembourgish** policies would consciously not refer to the TEN-T corridors because Luxembourg had a too small territorial size to contribute to the TEN-T infrastructural aims. Instead Luxembourg tried to influence TEN-T projects outside the country. In general they argue that Luxembourg extended its rail network for both passenger and freight transport anyway and would not be pushed by the EU to do so (Interview Besch and T. Juttel 2016). The Luxembourgish policies' support for passenger transport is very high and in line with the EU policies' relevance of this category. However, the Luxembourgish policy documents seem to support the expansion of freight transport less frequently than the other member states and the EU. This might be due to a high number of published Luxembourgish transport policy documents which focus on passenger transport only. According to Besch and Juttel, most EU transport policy objectives could also be found in the Luxembourgish national documents so that the policy is in line with the EU objectives. However, it could not be easily said if e.g. the objective to enlarge the share of modal split was stated first at EU level or by someone else. They consider that in the past the former EU objectives were not communicated as precise as today (ibid.).

As has been stated above, also the **German** national policies' average deviation from the EU objectives is similar to the other countries (16.8%, see **Table 52**). The German national BVWP, however, is said not to be influenced much by the EU objectives concerning TEN-T and cross-border transport as it barely refers to them. It slightly refers to the European standard ERTMS for which funds were reserved. According to Harmeling, most transport-related broad EU objectives are shared with the policies at German national level as these were developed in the exchange of the German national and the supranational European level (top-down or bottom-up). Additionally, he emphasizes the coordination of the TEN-T axes' development between the EU and the national and regional administrative levels (Interview Harmeling 2016). However, as can be seen from the document analysis the national level supports cross-border transport services and infrastructures to a very low degree. From the perspective of interviewed German stakeholders it is difficult to say whether the EU or Germany has influenced the existing transport objectives at national and EU level. The national level is particularly important for the funding of cross-border long distance passenger transport.

The **motivation** of the member states' policy makers to implement EU policies and adapt the national policies seems to be increased when **financial incentives** are offered. The integration of the TEN-T objectives into the national documents is not controlled by the EU level. This would mean high efforts because the national policies change frequently depending on the national policies. Instead soft incentives are offered to ensure the implementation. According to Balász the incentive of funds shall convince the member states of the cooperation with the EU in a long term perspective (Interview Balázs 2016). Also Sohn thinks that the EU financial incentives to a stronger cooperation and to the broadening of the individual national perspectives to a European perspective (Interview Sohn 2016).

In general, it can be seen that no EU objective has not been mentioned by the national policies at all. Often the national policies seem to ascribe a higher importance to policy objectives which are mentioned very frequently at EU level, whereas less frequently promoted aims – maybe because of their peculiarity

- are also mentioned less in the national policies. However, several exceptions and differences between the member states exist. This might be due to different needs and responsibilities of the national levels in the field of transport.

# Influence of EU policies on regional policies

The contribution of the regional policies to the EU objectives varies strongly between the objectives and the member states. The national policies showed a lower diversity of relevance. Only few EU objectives are relevant for all regional policies (see **Figure 73**). The promotion of most objectives varies between Lorraine, Wallonia, Rhineland-Palatinate and the Saarland. As in Luxembourg no regional level exists, they are excluded from this analysis.

### Table 53: Average deviation of all objectives of the member states' regional policies

Wallonia regional (n=12)	14.8	
Lorraine/G-Est regional (n=6)	20.7	
RLP regional (n=9)	14.5	
Saarland regional (n=11)	23.7	
Source: Author, Kaiserslautern, 2017.		

# Figure 73: Contribution of the regional administrative level policies to the EU policy transport-related <u>objectives</u>

	0	10	20	30	40	50	60	70	80	90	100
Transport infrastructure network				_	-				_		
Remove barriers, improve efficiency		_	_	_				•			
Linking TEN-T and secondary networks		-	•								
Relieve routes/ fighting congestion				-				•			
Intermodality/ interoperability			_		-	_				-	
Intelligent transport systems			, ·	-				,			
Freight corridors				•							
New technologies/innovations (research)				, . , .	_				-		
Improving mobility of freight						, ,			-	-	
Improving mobility of passengers									-		
Accessibility of remote areas				÷.					-		
Cross-border infrastructures					_	, I		-			
User-friendliness				_	-						
Transport services									_		
(Urban) public and soft mobility											
Transport safety							-				
Cross-border services											
Environmental and sustainability issues											
Alternative modes of transport								<u> </u>		-	
Alternative fuels/ climate change									- 1		
Minimising environmental harm							-				_
Sustainable transport			-	-			-		-		
Exchange of practices/ coordination			,			· ·		)	)	)	_
EU policy (n=15)	Belgi	um reg	gional	(n=12)	)		Lorrai	ne/G-I	Est reg	ional (	n=6)
■ RLP regional (n=9)	Saarl	and reg	gional	(n=11)	)						

Source: Author, Kaiserslautern, 2017.

When having a look on the average deviation of the regional policies from the EU policies (see **Table 53**), the Saarland and Lorraine strongly deviate although the national policies of both countries had been much more similar to the EU aims.

According to interviewed stakeholders from the **Saarland**, the influence of EU policies at the regional level would be higher if the EU objectives contained concrete guidelines. General objectives would also be pursued but not with concrete implementation deadlines and numbers. Often the implementation of these general objectives could not be implemented easily because of missing funds. The Saarland is said to have consciously avoided defining concrete CO<sub>2</sub> reduction numbers because of many external influence factors and financial constraints (Interview Ludwig 2016). When looking at the objective 'Alternative fuels/ climate change' which copes among other with the reduction of CO<sub>2</sub> emissions, the regional policies of the Saarland show a low contribution compared to the other regions. Particularly Rhineland-Palatinate and Belgium consider this objective to be more relevant than the EU policies. The relevance of funds is acknowledged by Glöckner. The EU policy is considered to influence the regional development because of financial incentives as the regional funds were scarce (Interview Glöckner 2016). Besides that, many EU transport development objectives were considered to be taken for granted at regional level anyway (ibid.). Still the Saarland policies deviate more from the EU relevance than the other regional levels. Chlench thinks that many general EU objectives are communicated to the public and thus internalised by the stakeholders that deal with transport planning after some time. Therefore she thinks that there is an indirect influence of EU policies at the regional level (Interview Chlench 2016). However, the EU TEN-T policy is said not to directly influence the regional spatial planning of the Saarland (ibid.). As mentioned above, the Saarland policy documents do not refer to the objective of linking TEN-T and secondary networks. This acknowledges the statement of Chlench. Interestingly the Saarland also deviates in several objectives from the promotion level of the documents from Rhineland-Palatinate. This underlines the German federal administrative system and the large independence of the regional levels. According to Glöckner, the discourse of regional transport development policies would be based on regional needs and objectives (Interview Glöckner 2016).

The regional policies from Rhineland-Palatinate deviate from the EU policies at least (see Table 53). Thereby they are slightly more similar to the EU policies than the German national policies. Harmeling considers the regional transport documents to be coordinated well with the EU policy objectives, particularly in fields in which EU directives and regulations were developed. Additionally, many EU objectives were not new but have been followed already for several years (Interview Harmeling 2016). According to Schreiner, some EU objectives were integrated in the regional policies, others were not considered to be reasonable and therefore not integrated (Interview Schreiner 2016). There are several objectives which are promoted stronger by the regional policies than the EU policies. The promotion of the linkage of TEN-T and secondary networks is addressed much less than by the EU policies and residual countries except of the Saarland. The German national policies mentioned this objective much more. According to Schreiner, the regional level seemed not to be aware of some TEN-T related EU objectives such as the connection of the TEN-T to secondary networks and the relevance of urban nodes (ibid.). Still, Harmeling underlines that the regional transport documents frequently related to TEN-T projects because the development of the TEN-T axes was coordinated with the national and regional administrative levels (Interview Harmeling 2016). Schelkmann considers the reference of the regional planning policy documents of Rhineland-Palatinate to EU transport objectives to be improvable. The new LEP is envisaged to contain stronger relations to the EU and cross-border projects (Interview Schelkmann 2016). Schreiner considers it to be very important to make use of the policies developed at EU level to improve cross-border transport. Policy makers should analyse the influence of the EU objectives at the regional level and develop ideas how these could be implemented effectively (Interview Schreiner 2016).

According to Straehli, the **French** Regional Councils needed to analyse the status quo of the regional development before a new multiannual funding period started and new regional policies were developed. This procedure was created out of EU influence. All French regional policy documents, firstly the CPER and the European regional programmes, and second all subprogrammes, are based on this regional diagnosis of the status quo (Interview Straehli 2016). Despite this coordination, the regional policies from Lorraine deviate from the EU policies more than the French national policies. This shows that the regional needs seem to vary from the challenges perceived at EU level so that Lorraine defines different objectives. For Lorraine the minimization of congestions and environmental harm and the exchange of experiences are very important objectives. These are not that relevant for most other regions. Beck sees a positive influence of the EU policies at the regional level, e.g. in the field of electromobility. Therefore, in his opinion, the formulation of EU policy objectives should not be reduced (Interview Beck 2016). When looking at **Figure 73** it can be seen that the French policies' support for alternative fuels (e.g. electro mobility) is very similar to the EU relevance. Wallonia and Rhineland-Palatinate support it even more. The Saarland seems to be less influenced from this objective.

The **Belgian** policies which strongly varied from the EU policies at the national level are more similar at the regional level. Thus, the Walloon (regional) level seems to adapt its policies more to the EU policies' objectives than it is done at national Belgian level. This perception was already made in the previous chapter. Many categories which are strongly promoted at EU level are not taken into account at the national level but at the regional level. Thus, the EU policies' influence seems to bypass the national level. However, Demilie doubts that the Belgian regions were strongly influenced by the EU objectives (Interview Demilie 2016). Also, the policies of the German Speaking Community of Belgium – like the REK - are said not to have been influenced directly by the EU policies. Still there was a regular contact to the EU (Interview Hilligsmann 2016). The statistics, however, are indicative for a certain influence of the Belgian regional level from the EU policies. When comparing the Belgian and EU policies in the different objectives (see **Figure 73**) several similarities but also differences can be observed. It was considered that the influence of some EU objectives had not been high because several objectives had existed in the member states before the EU included it in its official documents. However, the broad EU objectives were often implemented and 'repeated' by the regional documents (Interview Antoine 2016).

When looking at the cross-border transport-related objectives, the **linkage of TEN-T and secondary networks** is promoted very rarely by all regional policies. This is although the EU core network coordinators were said to try to get in contact with the concerned regional transport ministries to exchange about their regional interests and political will to contribute to the proposed TEN-T sections. Furthermore, the planning status of regional sections was analysed to evaluate their technical feasibility. Third, the financing of the projects would be discussed with regional stakeholders (Interview Balázs 2016). However, this communication might be focused more on the TEN-T in general than their linkage to regional secondary networks. The latter objective is mostly mentioned by the Belgian regional policies. Here differences can be observed to the national level policies. As stated before, this category was popular on German national level, but not at regional level, whereas the Belgian regional level promotes it more than the national level. In France both administrative levels consider it similarly irrelevant.

According to Sohn the European perspective would be of high relevance for border regions. Therefore the regions should adapt this perspective and support cross-border cooperation and coordination (Interview Sohn 2016). However, **cross-border infrastructures** are promoted less frequently in the regional level policies than in the EU policies. Wallonia and Lorraine promote it more than the German regions do.

When it comes to **cross-border services**, Wallonia and the Saarland consider it to be more relevant than the EU policies. Rhineland-Palatinate and Lorraine, however, do not consider it to be particularly important. The contribution of the policies of Rhineland-Palatinate to cross-border services is higher than at national level, but still low.

Demortier criticizes the **missing (EU) obligations** for cross-border coordination and cooperation in transport planning. An obligation could increase the regional interest in cooperation in the field of cross-border transport (Interview Demortier 2016).

To sum up, the EU policies' influence on the regional policy documents varies between the member states' regions. The improvement of cross-border transport infrastructures is promoted less in most cases whereas often cross-border services become more pronounced.

# Influence of EU policies on subregional policies

This section analyses the subregional policies of Belgium, France and Rhineland-Palatinate and the French intermunicipal policies because this administrative level does not exist in the other countries. Besides the eight Belgian subregional policy documents the numbers of the other subregional policy documents is very low (only four each). Therefore, the chance of aberrations is high and the findings have to be treated with caution. In the Saarland and Luxembourg, the subregional administrative level does not exist.

Not all subregional policies mentioned all EU transport-related objectives. Five objectives are not mentioned by every country. The connection between TEN-T and secondary networks, for instance is not mentioned by the subregional Belgian and French documents whereas in Rhineland-Palatinate the objective seems to be more relevant than at the EU level. At the subregional level of Rhineland-Palatinate the relevance of the TEN-T corridors is discussed controversially. According to the Planungsgemeinschaft Trier, the TEN-T corridors do not to have a very high relevance because the subregional level would not focus on improving large scale transport infrastructures. Still the regional level would ask them to contribute to the removal of bottlenecks on international road connections on their territory (Interview Planungsgemeinschaft Region Trier 2016). The RROP of the Planungsgemeinschaft Westpfalz relates to the Atlantic Corridor by promoting the expansion of the motorway A6 and the POS-Nord rail connection which belong to the corridor. It is considered to be an important development corridor for freight transport because of the logistical hubs in Saarbrücken and Mannheim. Thereby the RROP also aims at improving the cross-border transport to France (Interview Clev and H. J. Fette 2016). For the subregional Verband Region Rhein-Neckar the TEN-T policy and the Rhine-Alpine Corridor are of high relevance because the European metropolitan region is crossed by the corridor. Therefore the region is very interested in the expansion and promotes the corridor in its subregional plan (Interview Trinemeier 2016).

Some transport-related objectives were promoted by all subregional policy documents of one country and thus seem to be very relevant. **Cross-border services**, for instance, were promoted by all subregional policy documents of Rhineland-Palatinate and all intermunicipal French policy documents. **Cross-border infrastructures** are also promoted by all French intermunicipal policy documents. This objective is promoted less on the other subregional levels.

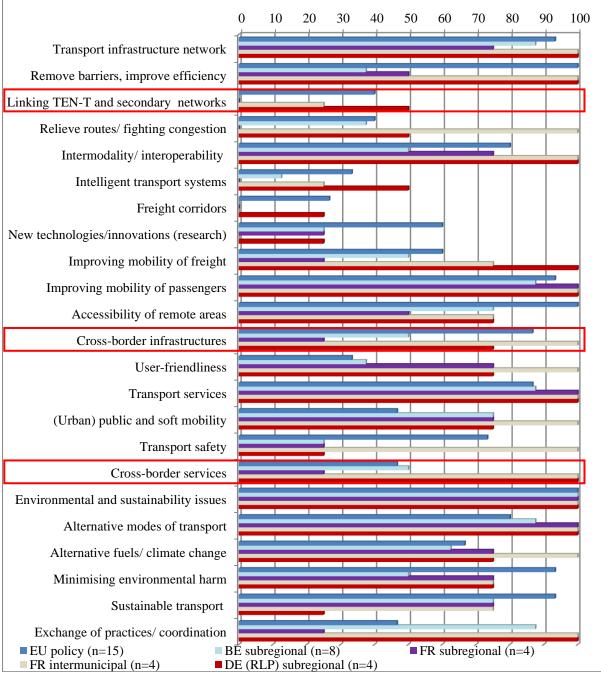
Table 54: Average deviation of all categories of the member states' subregional policies	;

BE subregional (n=8)	19.1
FR subregional (n=4)	25.3
FR intermunicipal (n=4)	24.1
DE (RLP) subregional (n=4)	20.7
Source: Author Kaiserslautern 20	17

Source: Author, Kaiserslautern, 2017.

When looking at the average deviations of the subregional policies (see **Table 54**) it can be seen that the deviations are higher than on the higher administrative levels. The Belgian subregional policies are most similar to the EU policies and the two French policy levels show the highest deviation.

Figure 74: Contribution of the subregional administrative level policies to the EU policy transport-related objectives



Source: Author, Kaiserslautern, 2017.

The **French** subregional level is said to rather react on the policies that were implemented at national level, influenced by the EU, than being shaped directly by the EU policies. Arts does not see a direct influence of the EU at the level of the *département* (Interview Arts 2016). The **national filter** might explain the strong deviation from the EU objectives.

The analysis of the subregional **Belgian** policies in the previous chapter showed that the design of the subregional policies' objectives is not dependent particularly on one of the higher policy levels. Instead they seem to focus on the subregional **needs**.

The policy documents of the subregional documents of **Rhineland-Palatinate** show a moderate deviation from the EU policy objectives. According to the interviewed subregional stakeholders there is no direct EU policy influence as the subregional policy documents were developed out of the regional documents (Interview Clev and H. J. Fette 2016). This is acknowledged by Trinemeier. Still it is said to be necessary to promote the EU objectives at subregional level to contribute to their timely implementation (Interview Trinemeier 2016). When comparing the objectives of the regional and subregional policy documents of Rhineland-Palatinate there are only few deviations. According to the *Planungsgemeinschaft Trier* the EU transport objectives were taken into account by the German subregional planning level. However, the transport flows and challenges and had to find pragmatic solutions for congested roads (Interview Planungsgemeinschaft Region Trier 2016).

To sum up, the comparison of the different subregional level- policy objectives with the EU transportrelated objectives shows large differences. At the German subregional level and the intermunicipal level of France cross-border transport is an important topic, whereas the Belgian and French subregional levels seem not to contribute much to cross-border transport. In general, and according to the interview partners, the direct influence of the EU at the subregional level is lower than on the other administrative levels. The national and regional level policies seem to influence the subregional level more than the EU policies.

#### Influence of EU policies on domestic policies during the two different funding periods

When comparing the domestic policies' contribution of all member states to the EU objectives of the respective funding period during which the policies were developed it can be seen that the domestic policies developed between 2014 and 2020 are a little more similar to the EU policy objectives than the ones of the earlier funding period (see **Figure 75** and **Table 55**). This can be particularly observed in the category of **linking the TEN-T and secondary networks** as this objective has also been named less frequently by the EU policies during the second funding period. In the category of promoting **cross-border infrastructures** the policies deviate to a lower degree than during the earlier funding period because of a lower promotion of this objective in the domestic policies. Also, the differences between the promotion of cross-border services in the EU and domestic policies were minimized – it was promoted more at EU level while promoted less by the domestic policies so that the relevance is very similar during the current funding period.

Policy level	TEN-T and secondary networks	CB infrastructure	CB services	All categories	
Domestic policies 2007-2013	38.9	26.3	14.4	20.9	
Domestic policies 2014-2020	18.8	24.9	1.7	18.0	

Table 55: Average deviation of the member states' domestic policies from the respective EU policies depending on the funding period

Source: Author, Kaiserslautern, 2017.

In approximately thirty percent of the objectives the deviation grew during the new funding period. In the residual objectives the deviation either stayed the same or was reduced. Although some priority changes of the EU policies can be observed between the two funding periods (see **Figure 75**), for instance in the field of alternative fuels or the improvement of the mobility of freight, the deviation of the domestic policies did not grow. The domestic policies thus seem to be adapted very well to the EU policies' objectives and focuses in this respect.

However, when comparing the change between the two funding periods in the EU objectives and the changes in the domestic policies, the domestic policies have not reacted in all cases according to the change of the EU policies' promotion of the objectives. In the case of the linkage of TEN-T and

secondary networks and the enhancement of cross-border infrastructures a direct relation seems to exist, though.

	0 20 40 60 80 100	0 20 40 60 80 100
Transport infrastructure notwork		
Transport infrastructure network		
Remove barriers, improving.		
Linking TEN-T and secondary.		
Relieve routes/ fighting congestion		
Intermodality/ interoperability		
Intelligent transport systems		
Freight corridors		
New technologies/innovations.		
Improving mobility of freight		
Improving mobility of passengers		
Accessibility of remote areas		
Cross-border infrastructures		
User-friendliness		
Transport services		
(Urban) public and soft mobility		
Transport safety		
Cross-border services		
Environmental and sustainable.		
Alternative modes of transport		
Alternative fuels/ climate change		
Minimizing environmental harm		
Sustainable transport		
Exchange of practices/.		
	EU policy 2007-2013	EU policy 2014-2020
	All domestic policies 2007-2013 (n=57)	■ All domestic policies 2014- 2020 (n=89)
Source: Author Kaiserslautern 2017		

# Figure 75: Contribution of the domestic policies to the EU policy transport-related objectives 2007-2013 (left) and 2014-2020 (right)

Source: Author, Kaiserslautern, 2017.

# Influence of EU policies on cross-border policies

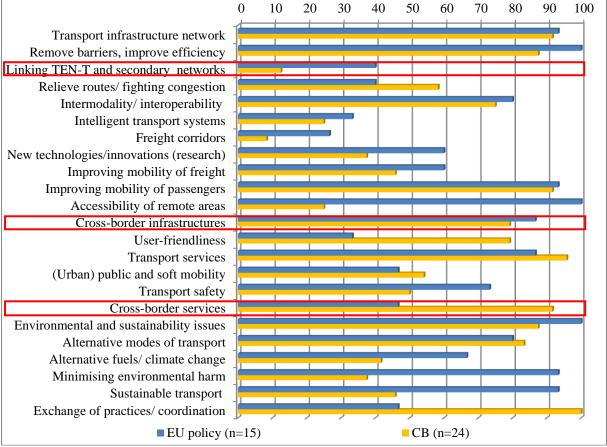
With the comparison of the cross-border policy documents' objectives to the EU transport objectives it shall be found out how far these policies have been influenced by the EU policies.

When comparing the cross-border policies with the EU objectives, the average deviation is 23.5% and thus higher than in the national and regional level policies of some member states. However, the deviation is still moderate (see **Table 49**).

Some objectives' relevance in the EU and cross-border policies is very similar, others are more important in cross-border policies than EU policies and vice versa (see **Figure 76**). The support for the linkage of TEN-T and secondary networks in the cross-border policies is rather low. However, cross-border services and the exchange of practices are more important than in the EU policies. Cross-border infrastructures are promoted on both levels to a similar degree.

The analysed cross-border policies seem to be based on the **unique needs and objectives of the cross-border region** which are jointly perceived by the entities of the Greater Region. These might not be relevant for all European regions and are thus not necessarily promoted frequently by the EU policies.

### Figure 76: Contribution of the cross-border policies to the EU policy transport-related objectives



Source: Author, Kaiserslautern, 2017.

According to the interviewed stakeholders, the EU policies are considered to harmonize the general transport development aims of the member states – e.g. by promoting soft mobility, a shift to public transport and electromobility - and thereby **simplify the negotiation processes** when cross-border policies are developed (Interview Vidal 2016; Interview Dostert 2016). This means that there is no direct influence from EU policies to cross-border policies, instead the interviewed stakeholders expect an indirect influence through the harmonization of the member states' policies.

According to Sohn the development of cross-border regions and cross-border transport would benefit from the **introduction of binding EU policies** (Interview Sohn 2016). Particularly a compulsory linkage of the TEN-T and secondary networks might lead to a higher implementation of this objective as it was not considered to be very relevant in the cross-border policies. Overall, the higher deviation of the cross-border policies from the EU objectives compared to the domestic policies shows that the direct influence of the EU policies on cross-border policies is lower. The member states' policies and individual needs of cross-border regions influence the cross-border policies' objectives much.

# Challenges for a direct influence of the EU policies on domestic and cross-border policy documents

It has turned out not to be easy to harmonize the transport development in the EU member states and develop a European wide transport system without borders. The interviewed stakeholders belonging to the different tiers of administration of the regions of the Greater Region or cross-border cooperation

institutions have named several challenges which hamper the direct influence of the EU transport-related policies on the domestic and cross-border policy documents. These are presented in the following.

Hilligsmann considers the **missing** EU policies' **obligations** to be the reason why technical standards have not been harmonized between the countries. This is said to hamper a smooth cross-border transport (Interview Hilligsmann 2016). Also, Demilie complains about the **reluctance** of some member states – like Germany - to implement the EU **technical standards**, e.g. the ERTMS system. Instead they are said to prefer sustaining their national standards to avoid high investments. This is said to decrease the Belgian motivation to invest in ERTMS at the German border and hamper a smooth cross-border transport and a higher interoperability of the national systems (Interview Demilie 2016). Antoine questions the ability of the EU to predict the future development. Therefore the management of the transport development by the EU would not have a good **reputation** in the Belgian transport ministry and the policies were implemented reluctantly (Interview Antoine 2016). This shows the relevance of the domestic attitude towards the EU for the policy influence on the domestic policies. Also Demortier criticizes the low legal (EU) obligations for the member states to coordinate transport development and cooperate in transport planning (Interview Demortier 2016).

Missing or too little **financial incentives** are seen as a challenge for motivated member states to implement EU technical standards. Often, high numbers of EU project applications were received. However, the Connecting Europe Facility is said not to offer enough EU funds to implement e.g. the ERTMS system on all Belgian rail tracks (Interview Demilie 2016). A shortage of TEN-T/CEF funds was also bemoaned by Bissen (Interview Bissen 2016). Missing funds are considered to be a general challenge for the implementation of EU and national aims at the regional level (Interview Ludwig 2016). Also Bost sees the low availability of funds to be a challenge for the implementation of the EU TEN-T policy objectives in the Greater Region (Interview Bost 2016).

According to Castagne, an important challenge for the harmonization of the member states' policies and cooperation across borders were the **different understandings of transport planning**, including different approaches, procedures as well as competences. The Belgian planning, for instance, is said to be strongly demarcated from environmental, climate and economic concerns whereas the French planning would investigate a comprehensive field of spatial planning. Castagne describes the Luxembourgish and German planning approach as more schematic (Interview Castagne 2016). Furthermore, the member states involved in the Greater Region would have slightly different transport development focuses. E-mobility, for instance, is said to be strongly promoted by Lorraine and Luxembourg but not by Wallonia. However, the transport objectives would not contradict each other, still they might complicate the development of common cross-border policies (ibid.). This acknowledges the relevance of planning cultures as influencing factor on the coordination of policies and the implementation of EU objectives.

Besides that, the member states and regions are said to still **compete** with each other despite a simultaneous cooperation. This competition, for instance between the logistical hubs Bettembourg (LUX) and Athus (BE) that are both to be expanded (ibid.), would hamper the implementation of common policy objectives (Interview Weidenhaupt 2016).

Demortier sees the earlier discussed **size of the cross-border region** Greater Region to be a challenge for a comprehensive coordination of the transport development (Interview Demortier 2016). The high number of different needs and objectives might also hamper the influence of the EU policy objectives on common cross-border policies.

# Conclusion: Influence of EU policy on domestic and cross-border policy transport documents

When evaluating the influence of EU transport-related policies on the policies produced by the member states involved in the Greater Region the course of action of the document analysis needs to be kept in mind as described in **chapter 1.3**.

When comparing the deviation of the administrative levels of the involved member states from the EU objectives, the national levels seem to be most in line with the EU aims except in Belgium. Here Wallonia shares a higher similarity of the cross-border transport-related objectives' relevance with the EU level. Additionally, Rhineland-Palatinate is also slightly more similar than the national level, but the Saarland is less similar. This fits to the character of the administrative structures and the distribution of competences in the four countries described in **chapter 6.3.2**. Whereas in France and Luxembourg the national levels are very powerful and are responsible to implement EU policies, the situations in Germany and Belgium are different because of their federal structure in which the regional levels have extensive powers and can develop their own interpretations of the EU policies. This is demonstrated by the different focuses of the EU aims than those of the Belgian national level policy documents. Thus, the different **state hierarchies** and **divisions of competences** of the countries seem to influence the **formal implementation** of the EU policies and the involvement of subnational actors in EU policy-making.

Besides that, the **subregional** levels show stronger deviations from the EU policies than the higher levels and thus seem to be influenced **less directly** by the EU policies. Instead they are said to be influenced more by the **national and regional objectives** of the countries and the **subregional needs**. This seems to point out that the EU influence cannot easily infuse more than two administrative levels.

When comparing the influence of the policies of the two **funding periods** (2007-2013 and 2014-2020) on the domestic policies there is no high difference but a slightly higher similarity during the second funding period. This applies particularly to the objectives of linking the TEN-T and secondary networks and cross-border services. The comparison of the two funding periods also shows that the domestic policies have been **adapted** to some changed EU policy focuses and proven a certain influence as the changed EU focuses have not led to a higher deviation of the domestic policies. However, this could not be acknowledged in all cases.

The comparison of the domestic policies from the four member states did not show strong differences in the **overall policies' deviation from the EU transport-related objectives**. The cross-border transport infrastructure and service objectives, however, were promoted most by the Luxembourgish policies whereas the linkage of secondary and TEN-T networks was promoted most by the German policies. The French policies most frequently defined concrete cross-border transport projects. Furthermore, the member states' contribution to the single objectives partially varies to a decisive degree - independent from the EU policies' promotion - which might be caused by different transport planning approaches and the overall understanding of transport planning. This might point to a certain degree of **path dependence** of domestic administrative systems and policies as the promotion of the objectives has not been strongly coordinated between the countries. Also, the interviewed stakeholders mentioned the different focuses and approaches which hampered the coordination and direct influence of the EU policies. Further challenges named by the interviewed stakeholders were, among others, too few **financial incentives, missing obligations** and thus **missing motivations** of the member states to implement the policies. Furthermore, as the cross-border **cooperation area** of the Greater Region is quite large this leads to a higher **variety of regional aims and needs** which will automatically lead to

very broad cross-border cooperation policies. Additionally, an existing **competition** between the member states might make it difficult to agree on common EU standards.

The average deviation of the **cross-border policies** is higher than the one of the domestic policies and also considered to be strongly dependent on the **individual needs** of the involved regions. Therefore, the cross-border policies seem to be influenced more by the domestic policies than by the EU.

Besides the different transport focuses of the five regions, there is a politically explicitly formulated **will** and **shared aim** to cooperate in the Greater Region across borders and to coordinate the transport development. How effective this is in practice and how far the cooperation challenges have led to a low practical implementation of the cross-border transport objectives, despite a long cooperation experience in the cross-border region, shall be analysed in the next section.

# 6.3.5 Practical influence on cross-border transport – facilitated projects and initiatives since 2007

This chapter analyses the concrete projects and transport initiatives and their objectives that have been implemented since 2007 in the field of cross-border transport in the Greater Region in order to trace back a potential further influence of the EU TEN-T and ETC policy and funds on cross-border transport.

The EU directly supports projects funded under the European Territorial Cooperation Policy (INTERREG A and B). The feasibility of transport projects by INTERREG depends on the priorities that are defined in the Operational Programmes respectively Cooperation Programmes of the INTERREG A and B cross-border and transnational cooperation areas (European Union 2006, 2) (see **chapter 5**). The relevant programmes' aims will be summarized in short in the beginning of each section.

The TEN-T Policy funds projects to support the implementation of the TEN-T priority projects (funding period 2007-2013) and the TEN-T core network including the core network corridors (funding period 2014-2020). These were described in **chapter 5.** In the following, the relevant priority projects and corridors are mentioned in short before the TEN-T projects are described.

First, the INTERREG projects are analysed. Second, the projects which have been funded by the TEN-T Policy are presented. Third, the projects and initiatives which have been implemented independent of EU related funding programmes are shown.

The EU project descriptions are based on information available on the respective funding platforms, the project platform KEEP and project websites and include ex-post evaluations in the case the projects have already been completed.

# INTERREG A

The INTERREG A Operational and Cooperation Programmes of the Greater Region were developed based on a SWOT analysis of the Greater Region which analysed, among others, the transport situation. Additionally, the preferences of the member states involved were involved in the programmes' definition (Interview Vidal 2016).

### 2007-2013

The **Operational Programme** of the Greater Region was already described in detail in **chapter 5.2.1**, however, as it is expected to be an important influence factor for the project objectives' orientation, the main objectives will be summarized briefly in the following.

The programme aims at minimizing the congestions of the transport network and shifting freight transport to alternative modes, e.g. inland waterways. Also, freight terminals can be supported. Also, passenger transport shall be moved to alternative transport modes and public transport services which

shall become more efficient and user-friendly, particularly more interoperable across borders. The coordination of stakeholders across border shall be enhanced. Fast and long-distance rail connections across borders should be made use of to improve the residual cross-border transport infrastructures. In general, the internal and external accessibility is to be improved for commuters and leisure purposes. According to Ripp, however, the TEN-T corridors have only marginally influenced the INTERREG A cooperation programme of the Greater Region because of a different scale (Interview Ripp 2016). Besides that, the programme states that transport shall become more environmentally friendly, soft mobility is to be promoted and the application of intelligent transport systems is to be supported. 78% of the EU objectives were promoted by the Operational Programme.

Between 2007 and 2013 seven INTERREG A projects were funded in the Greater Region which related to cross-border transport. These are described shortly in the following.

ELEC'TRA - Grenzüberschreitendes Mobilitätskonzept zur Reduzierung des Individualverkehrs der Pendler in der Großregion durch die Förderung von Elektromobilitätslösungen als Ergänzungen zu den öffentlichen Verkehrsmitteln (Lead Partner: Conseil Général de la Moselle; funding period: 04/2012 – 04/2015, ERDF funds: ca. 0.5 million Euros) (INTERREG IVA Großregion 2017b)

The project developed an economically viable e-mobility concept across borders with car-pooling and car-sharing hubs at the most important commuter connections of the Greater Region (Metz-Thionville-Luxembourg; Saarbrücken-Luxembourg; Saarbrücken-Forbach; Trier-Luxembourg) to reduce the number of individual car drivers as an alternative to public transport. Additionally, CO<sub>2</sub> emission were to be minimized. Thereby the project was to improve the cross-border mobility within the Greater Region (KEEP b). The car-pooling hubs were to be connected with other public transport modes for the first and last mile connections (Gouvernement du Grand-Duché de Luxembourg 2016, 29). The developed concept was to be implemented in the Greater Region subsequently after the end of funding (KEEP b). The concept is now available for all investors who wants to implement it into practice. The project showed the high relevance of application of electromobility in the cross-border commuter flows (Interview Beck 2016).

*Gemeinsame Kommunikationsstrategie des grenzüberschreitenden öffentlichen Personenverkehrs in der Groβregion* (MobiRegio) (Lead Partner: Verkéirsverbond Luxembourg; funding period: 07/2012 – 12/2014, ERDF funds: ca. 0.2 million Euros) (INTERREG IVA Großregion 2017a)

The project MobiRegio aimed at enhancing the usage of public transport in the core area of the Greater Region. The connections were to be coordinated better. A platform with a common cross-border journey plan was to be developed for the Greater Region which comprises all information on the transport connections – including short pedestrian mobilities - within the Greater Region (KEEP c; Die Grenzgänger 2012; Interview Beck 2016; Interview Vidal 2016; Interview Dostert 2016; Interview Ludwig 2016; Interview Chlench 2016; Interview Ripp 2016; Interview Schelkmann 2016; Interview Harmeling 2016; Interview Ball 2016; Interview Camps 2016; Interview Jacquey 2016; Interview Ries 2016; Interview Sohn 2016). Therefore the different databases were to be harmonized (Interview Harmeling 2016). The project developed a common branding and corporate identity to make the cross-border transport offer more visible (Wirtschafts - und Sozialausschuss der Großregion 2014, 92) and to commonly promote the usage of public transport in the Greater Region. Furthermore, timetable leaflets were produced. According to Dostert, the project has developed a frequent and still ongoing exchange and network between the transport providers (Interview Dostert 2016). Furthermore, the stakeholders that are responsible for the public transport development were linked better (Interview Ludwig 2016; Interview Ripp 2016). The platform was developed with the support of the IPR (Interview Ries 2016).

However, it turned out to be difficult to link the different journey planner information systems because of different domestic approaches. Additionally, the Belgians were said not to be willing to integrate their system. In the end of 2016, only the journey planners from Saarland and Luxembourg were linked on the platform. Rhineland-Palatinate is said to be willing to connect its system in the future as well. The project is seen as an initiating phase for the future cooperation across borders in the field of public transport. A common strategy is to be implemented in the future. The journey plan information system was to be regularly updated and expanded after the end of funding for a better coordination of transport planning across borders (Wirtschafts - und Sozialausschuss der Großregion 2014, 92). Unfortunately, the initiative was not prolonged after the end of funding so that the platform was not updated. The managing director was dismissed because of missing funds (Interview Vidal 2016; Interview Schelkmann 2016; Interview Sohn 2016). The project developed good approaches but the political will was said to be missing to develop the platform further (Interview Ball 2016). Still it is hoped that the platform will be finalised soon (Interview Ludwig 2016). In the current funding period it is said to be tried to convince the former project partners to reapply and reactivate the platform (Interview Vidal 2016). A meeting of the working group was planned for January 2017 to develop the further steps of cooperation (Interview Dostert 2016). In general the linkage of stakeholders which was achieved by the project and the creation of a cooperation culture are expected to be valuable for other cross-border projects and coordination in the field of transport (Interview Ludwig 2016; Interview Jacquey 2016). The project involved members of all five region (INTERREG IVA Großregion 2017a).

**POS NORD -** Optimierung des grenzüberschreitenden Streckenabschnittes Baudrecourt-Saarbrücken- Kaiserslautern- Mannheim – Strecke Nr. 4 der Transeuropäischen Netze und Korridor C06 des Netzwerkes Railnet Europa (Lead Partner: Conseil Général de la Moselle; funding period: 07/2011 – 06/2014, ERDF funds: ca. 0.5 million Euros) (INTERREG IVA Großregion 2017c)

The German-French project dealt with the high-speed rail connection between Paris (FR) and Frankfurt (DE). The section between Baudrecourt (FR) and Mannheim (DE) via Forbach (FR), Saarbrücken and Kaiserslautern (DE) - crossing the Greater Region - was to be upgraded to decrease the travel times. Thereby the track should become able to compete in comparison to the southern track between Paris and Frankfurt via Strasbourg (FR). For that purpose, the project financed a study to identify prior sections in which the track should be expanded to accelerate the connection. The concrete upgrades of these sections were to be implemented by the respective national infrastructure programmes (KEEP a; Interview Ripp 2016; Interview Schelkmann 2016; Interview Trinemeier 2016; Interview Ball 2016; Interview Ries 2016). The German sections were registered in the national BVWP as second priority (Interview Ludwig 2016; Bundesministerium für Verkehr und digitale Infrastruktur 2016, 171). Trinemeier does not consider the measures which are planned to be reasonable because they would be very costly and only a little time benefit could be achieved. He considers the investments to be politically driven (Interview Trinemeier 2016). Ball does not expect any influence of this project on cross-border transport (Interview Ball 2016). The project rather focused on the external accessibility of the Greater Region and less the internal transport (SMA und Partner GmbH 2014, 1). However, as the analysed section is situated in the Greater Region it was fostered by the INTERREG A programme (Interview Ripp 2016). Additionally, the study took heed to the existing regional transport offer which should not be influenced negatively by the proposed investments in the long distance rail infrastructure (SMA und Partner GmbH 2014, 1f.). The expansion of this rail track is also named as a priority in the priority list of the Summit of the Greater Region (Koordinierungsausschuss für Raumentwicklung der Großregion 2013, 7). The enlargement of the French regions and the creation of the Grand Est might lead to internal discussions because the POS Nord track competes with the POS south connection. The latter involves Strasbourg belongs to the same French region since 2016 (Interview Schelkmann 2016). As the project

is situated on the same track as the Atlantic TEN-T Core Network Corridor there seems to be an intersection of the TEN-T and ETC policy.

*Grenzüberschreitender KV-Terminal Überherrn-Falck* (Lead Partner: Ministerium für Wirtschaft, Arbeit, Energie und Verkehr des Saarlandes; funding period: 03/2015 – 09/2015, ERDF funds: ca. 0.3 million Euros (Interview Jung 2017))

This German-French project conducted a study on the establishment of a cross-border combined transport terminal in Überherrn (DE) i.e. an intermodal and binational platform for passenger and freight rail transport (Interview Ludwig 2016). As Überherrn is located in direct vicinity of the German-French border the platform shall contribute to a more attractive transport across borders. Some rail tracks to France are to be reactivated. Fast connections between Saarbrücken and the country Luxembourg are to be offered in the future as well as cross-border connections on a cyclic schedule. A hub for transport and logistics is to be established (TransCare GmbH 2015, 3ff.). The project funded the investment study but no investments in the infrastructure.

Table 56: Further INTERREG A tra	ansport projects of the Greater Reg	<u>gion (2007-2013)</u>

	Project name	Thematic focus	Funding period	Approx. ERDF support						
	Vélo Visavis Rosselle Saar Blies II	Cross-border bicycle network	01/2009 - 12/2013	5.4 million €						
	Rückenwind	E-biking and hiking across borders	03/2010 - 08/2013	2.8 million €						
	Vennbahnroute	Cross-border bicycle network	07/2009 - 06/2015	3.8 million €						
S	Source: Author, Kaiserslautern, 2017 based on INTERREG IVA Großregion 2017e, 2017f, 2017d									

The three projects *Rückenwind*, *Vennbahnroute* as well as *Vélo Visavis Rosselle Saar Blies II* (see **Table 56**) developed cross-border bicycle networks to connect touristic attractions (Interview Vidal 2016; Interview Ries 2016). The *Vennbahnroute* was built on a former rail track linking German, Belgian, and Luxembourgish places. The project *Rückenwind* was implemented in the area between the German *Westpfalz* and the French area around Bitche, the third project focused on the region SaarMoselle (INTERREG IVA Großregion 2016). These bicycle projects are said to have promoted the cooperation and conscious coordination of transport planning across borders. According to Beck, this increased the awareness of the relevance of coordinating transport planning across borders (Interview Beck 2016). Still the projects primarily followed a touristic objective which is not considered to be relevant for the daily cross-border transport practice. Therefore, they are not described in more detail.

# Thematic focus of the INTERREG A projects and their objectives (2007-2013)

When looking at **Figure 77** it can be seen that most projects have contributed to objectives described in the Operational Programme (OP). However, there are some exceptions. For instance, 43% of the projects contributed to the EU objective of new technologies, and one project also supported the accessibility of remote areas. Both objectives are frequently named EU policy objective but not mentioned in the OP.

Most projects supported strongly promoted EU objectives like 'alternative modes of transport', 'transport services', 'improvements of the transport infrastructure network', 'passenger transport' and 'environmental and sustainability issues'. However, other popular EU objectives have not been integrated or at least not directly mentioned in projects like 'sustainable transport' and 'fighting congestions'. Also, the minimization of environmental harm – a very important objective in the EU policies was only mentioned by one project. Less popular EU policy objectives were mostly not treated by the projects. However, also the more popular objectives such as 'transport safety' were ignored, as they were also not mentioned in the OP.

	0	10	20	30	40	50	60	70	80	90	100
Transport infrastructure network	1										
Remove barriers, improve efficiency								7	1		
Linking TEN-T and secondary networks		-	14								
Relieve routes/ fighting congestion	_ 1						_				
Intermodality/ interoperability	_					43					
Intelligent transport systems		_	14								
Freight corridors											
New technologies/innovations (research)	-					43					
Improving mobility of freight	_	-	14								
Improving mobility of passengers	-	-	-	-			-	-	-	-	
Accessibility of remote areas			14								
Cross-border infrastructures				1		1		7 1	1		
User-friendliness	-	_	_	1						86	
Transport services	-						- 1			<b>8</b> 6	
(Urban) public and soft mobility	-		1					- 7	1		
Transport safety		_	_		_			_			
Cross-border services	-							7	1		
Environmental and sustainability issues	-	_	_		_		_	_	_		
Alternative modes of transport	-										
Alternative fuels/ climate change	-			29							
Minimising environmental harm	-		14								
Sustainable transport	-1										
Exchange of practices/ coordination		/	/	/	/	/	-	- 7	1 ]	J	J
OP Greater Region	polic	y 2007	-2013		IN	TERR	EG A	project	ts 2007	7-2013	
Source: Author, Kaiserslautern, 2017.											

Figure 77: Contribution of the INTERREG A projects (2007-2013) to the EU policy objectives

The **linkage of TEN-T and secondary networks** was treated only by one project but **cross-border services** and **infrastructures** were addressed by five projects each. Still, only four of the seven supported transport projects are considered to potentially have had an influence on the transport accessibility across borders. One of them focused on the external accessibility of the cross-border region, one supported a study on the establishment of a cross-border freight and passenger terminal, and two facilitated the cross-border interconnection by public transport respectively alternative transport modes. The other three projects solely funded touristic bicycle infrastructures. Thereby the projects contributed to commuter and touristic mobility as it was laid down as aim in the Operational Programme. Only one project aimed at contributing to freight transport but not on inland waterways as it was aspired in the programme. The challenges encountered in the follow-up of Mobiregio show the high dependence of INTERREG projects on the EU funds and the difficulty to efficiently prolong the cooperation after the end of funding in some cases. Still it was underlined by several interviewees that the exchange of transport stakeholders within the project has been beneficial for future cooperation. Thereby the projects might create an impetus for the cross-border transport development.

### 2014-2020

The **Cooperation Programme** of the Greater Region was already described in detail in **chapter 5.2.1**. The main objectives will be summarized briefly in the following.

According to the Cooperation Programme the cross-border transport mobility in the Greater Region is to be improved because of the high numbers of cross-border commuters. The transport infrastructures and public transport services across-borders are to be relieved to accelerate the travel speed across borders. Additionally, alternative transport modes, including soft mobility, and services are to be

enhanced across borders to become more user-friendly. The cross-border offer shall be promoted more. Thereby the multimodality shall be increased. Some infrastructure investments can be supported and the  $CO_2$  emissions as well as other environmental harm are to be reduced to make transport more sustainable. The different domestic transport systems are to be coordinated better across borders. The Cooperation Programme mentioned 61% of the EU policies' objectives.

According to Ripp, the Europe 2020 Strategy with its flagship initiatives has strongly influenced the development of the INTERREG VA Cooperation Programme as the programme strategies have to relate to the strategy's objectives and initiatives and contribute to their implementation. Transport and mobility are considered to have a high influence on the implementation of several Europe 2020 strategy aims (Interview Ripp 2016). In turn, the Europe 2020 strategy itself, including its transport-related objectives, is said to have been strongly shaped by the member states and their interests (Interview Kurnol 2016).

As a result of the SWOT analysis for the current funding period an improved transport mobility turned out to be important because of the high numbers of cross-border commuters. As the ETC Policy can fund transport projects, which are often very expensive in practice, transport objectives were integrated in the Cooperation Programme (Interview Vidal 2016). Still, the choice of priorities is said to have been discussed strongly. Luxembourg is said to have been strongly in favour of integrating the transport objective because it is strongly influenced by the cross-border commuters (Interview Ripp 2016). According to Vidal, however, the introduction of the transport objective was not pushed particularly by Luxembourg as all member states were in favour (Interview Vidal 2016). A compromise among the member states was found quickly. As only four of eleven EU predefined priorities could be chosen it was avoided to integrate the EU transport objective (no.7) as main priority. Instead a better 'commuter mobility, employment and labour market' was defined as main priority to have a broader scope. Transport was added as a sub goal. According to Ripp, pure touristic transport developments were excluded from the financial support (Interview Ripp 2016).

During the current funding period not as many transport projects have applied for funding as expected. Further projects in this field are promoted by grouping potential partners. It is tried to motivate the former partners of the Mobiregio project to reactivate the information platform (Interview Vidal 2016). The projects which were accepted until June 2017 are presented in the following.

*Neubau Fähre Oberbillig - Neubau einer elektrisch betriebenen Moselfähre zwischen Oberbillig* (*D*) *und Wasserbillig/Mertert (Lux)* (Lead partner: Oberbillig; funding period: 05/2015 – 12/2017; ERDF funds: ca. 0.7 million Euros) (Gemeinsames Sekretariat INTERREG V Großregion 2016)

A new electric ferry shall be established across the Mosel river between Oberbillig (DE) and Wasserbillig/Mertert (LUX) (Interview Beck 2016; Interview Harmeling 2016; Interview Camps 2016). It shall replace an old, smaller ferry with high maintenance costs and reduce the environmental burden. The ferry is said to be an important alternative to the existing bridge. It was to be replaced in autumn 2017 (Gemeinsames Sekretariat INTERREG V Großregion 2016, 7).

*Schonende Mobilität 3 Grenzen – Schonende Mobilität Heim/Arbeit im Großraum der 3 Grenzen* (Lead partner: IDELUX; funding period: 01/2017 – 12/2021, ERDF funds: 2.7 million Euros) (ibid., 8)

The project shall coordinate a bicycle itinerary in the PED between Lorraine, Luxembourg and Belgium (Interview Castagne 2016). Thereby the bicycle mobility in the cross-border agglomerations is to be expanded (Interview Vidal 2016). The safe bicycle paths shall connect the high number of cross-border commuting citizens with the railway stations, reduce the number of car users and thereby relieve the congested roads in their peak hours. Further funds shall be used to develop bike related facilities like locks and loading infrastructures for e-bikes. Thereby the mobility of the cross-border commuters shall be enhanced (Gemeinsames Sekretariat INTERREG V Großregion 2016, 8).

*Grenzüberschreitendes Ticketing SaarMoselle* (Lead partner: Département de la Moselle; funding period 01/2016 – 08/2019, ERDF funds: 1.9 million Euros) (Eurodistrict SaarMoselle 2011a)

The project aims at developing a common cross-border ticket system for public transport to smoothly travel within the Eurodistrict SaarMoselle region with one ticket. The existing ticket systems shall be harmonized. So far, a common standard has been missing and it was necessary to buy several tickets when crossing the border. This is said to have hampered the development of a cross-border public transport network (Interview Beck 2016; Interview Ripp 2016; Interview Kiffer 2016). The project concerns, among others, two existing cross-border bus lines (Interview Ludwig 2016). The development of this project was only possible because of the INTERREG financial support. Thereby all transport authorities were able to participate (Interview Beck 2016). A high interest within the Greater Region in this project was reported. The project entails a study on the cross-border interoperability of public transport on rail and road until 2025/2030. The Saarland is said to be particularly interested in developing a basis for improvements in the railroad connections between Saarbrücken (DE) and Metz (FR). The project focuses on the territory of the Eurodistrict (Interview Ludwig 2016). However, the results shall be applied on the whole territory of the Greater Region (Interview Beck 2016; Interview Kiffer 2016).

Besides the above presented projects, another project was accepted which focused on the development of a cross-border touristic hiking and bicycle track (see **Table 57**).

Thematic focus	Funding period	ERDF support
Development of a cross- border hiking and	01/2016 - 12/2018	1.5 million €
bicycle path, including a renovation and		
construction of two bridges		
	Development of a cross- border hiking and bicycle path, including a renovation and	bicycle path, including a renovation and construction of two bridges

#### Table 57: Further INTERREG A transport projects of the Greater Region (2014-2020)

Source: Author, Kaiserslautern, 2017 based on Gemeinsames Sekretariat INTERREG V Großregion 2016, 18.

# Thematic focus of the INTERREG A projects and their objectives (2014-2020)

The four above described INTERREG projects tackle a high variety of cross-border transport thematic objectives. Besides the touristic cross-border hiking and bicycle project, the three other projects have a high potential to improve the daily cross-border transport by enhancing transport infrastructures across natural barriers (ferry), creating cross-border ticket systems and by linking public transport services via cross-border bicycle connections. However, all projects are still running so that it is difficult to evaluate their final contribution to cross-border transport.

As can be seen in **Figure 78** all projects contribute to cross-border transport infrastructures and half of them to cross-border transport services. The cooperation programme does not refer to all EU policy objectives. Particularly many transport infrastructure-related objectives were left out. Still some projects addressed some of these objectives which were not explicitly mentioned in the Cooperation Programme such as the removal of barriers.

Sustainable transport is the sole EU policy objectives which was not mentioned by one of the four projects although also being promoted by the Cooperation Programme. Besides that, all shared objectives of the programme and the EU policies have been addressed at least by one of the projects. Freight mobility was neither addressed by the projects nor the cooperation programme. Transport infrastructures and services were dealt to the same degree.

It can be observed that the projects' objectives have been mainly steered by the Cooperation Programme. Very technical EU objectives were not funded by the INTERREG A programme. Additionally, a clear focus was laid on passenger transport.

	0	10	20	30	40	50	60	70	80	90	100
Transport infrastructure network	1										<b>1</b> 100
Remove barriers, improve efficiency											100
Linking TEN-T and secondary networks											
Relieve routes/ fighting congestion						50	)				
Intermodality/ interoperability								_	75		
Intelligent transport systems											
Freight corridors											
New technologies/innovations (research)											
Improving mobility of freight											
Improving mobility of passengers				-							100
Accessibility of remote areas				25							-
Cross-border infrastructures											100
User-friendliness									75		
Transport services				-							<b>1</b> 100
(Urban) public and soft mobility				-					75		
Transport safety				2.5							
Cross-border services						50					
Environmental and sustainability issues				-	-			-		-	<b>1</b> 100
Alternative modes of transport				-			-	_			100
Alternative fuels/ climate change			_	25			-			_	
Minimising environmental harm				-		50	)			_	
Sustainable transport			-								_
Exchange of practices/ coordination	]	-	-	25	-	7	5	5	5	5	_
CP Greater Region	polic	y 2014	-2020		IN'	TERR	EG A	projec	ts 2014	4-2020	)

Figure 78: Contribution of the INTERREG A projects (2014-2020) to the EU policy objectives

Source: Author, Kaiserslautern, 2017.

# INTERREG B

According to Louwers, the programme director of INTERREG North-West Europe, the development of the INTERREG B Operational Programme (2007-2013) and Cooperation Programme (2014-2020) of North-West Europe was strongly shaped by the national representatives of the involved member states (Louwers 2016).

# <u>2007-2013</u>

The **Operational Programme** (OP) of North-West Europe was already described in detail in **chapter 5.2.2**, however, as it is considered to be an important influence factor for the project objectives' orientation, the main objectives will be summarized briefly in the following.

The programme aimed at enhancing the transport connectivity within the cooperation area. Therefore, the application of sustainable and intelligent transport systems was to be fostered. Congested transport infrastructures were to be relieved and bottlenecks removed. At the same time the accessibility of remote areas was to be enhanced. Also, transnational transport corridors and their linkage to secondary networks, as well as cross-border transport services were to be improved. Sea transport and inland waterways were to be enhanced. Transport was to become more environmentally friendly and safer. Furthermore, the transport systems of the different member states were to be connected better across borders. Alternative transport modes were to be expanded and the different modes should become more interoperable for freight and passenger transport. 83% of the EU policy objectives were mentioned in the OP.

During the last funding period the North-West Europe Programme funded several transport-related projects. However, only two had a certain relation to cross-border transport in the Greater Region.

**CODE24 - Corridor 24 Development Rotterdam-Genoa** (Lead partner: Verband Region Rhein-Neckar, funding period: 10/2008 – 03/2015, ERDF funds: ca. 3.8 million Euros) (INTERREG IVB NWE n.y.p)

The project promoted the development of the Rhine-Alpine Core Network Corridor, earlier named Corridor 24. A common transnational strategy for the corridor development was developed to increase the transport capacity and accessibility of the corridor. Particularly the regional level was to benefit economically and spatially from the investments whereas the environmental burden was to be reduced. The needs of regional and local stakeholders were to be communicated at higher administrative level (INTERREG IVB NWE n.y.f). After the end of funding an EGTC was established to promote the corridor with a bottom-up spatial strategy involving the regions which are crossed by the corridor (Interview Trinemeier 2016). The project has developed a management platform to influence the TEN-T projects. This is considered to be of high relevance but not measurable easily as no physical transport infrastructure was established (Interview Louwers 2016).

The project, however, concerns the Greater Region only marginally because no entity of the Greater Region has been involved in the project. Still, Louwers sees an indirect influence on the Greater Region as it is located in the vicinity of this TEN-T corridor (ibid.). Also Trinemeier considers the project to be of high relevance for the transport in the German planning region *Rhein-Neckar* (Interview Trinemeier 2016).

**SINTROPHER - Sustainable Integrated Tram-Based Transport Options for Peripheral European Regions** (Lead partner: University College London, funding period: 10/2007 – 10/2015, ERDF funds: ca. 7.9 million Euros)

The project aimed at developing rail based transport connections from peripheral regions to the European core rail network. Innovative tram-train solutions were to be developed (INTERREG IVB NWE n.y.t). The Eurodistrict SaarMoselle participated as sole partner from the Greater Region in this project. It conducted studies on the development of a tram-train between Saarbrücken (DE) and Forbach (FR) as part of the project. Thereby the project is considered to have contributed to the cross-border development within the Greater Region (Interview Kiffer 2016).

Besides these two projects, further projects were funded between 2007 and 2013 which do not have a direct relation to cross-border transport or do not involve partners from the Greater Region (see **Table 58**). Still they might have some indirect influence and are therefore presented shortly in the following. Cluster projects were excluded from the analysis.

The **BAPTS** project involved partners from Luxembourg and Liège and conducted a case study in Liège. However, it did not address cross-border transport but urban public transport (INTERREG IVB NWE n.y.b). Therefore, no direct influence on cross-border transport in the Greater Region is expected. **CCP21** involved the port of Liège. A tool was developed to improve the communication between inland waterway ports which might also be applied in the residual inland waterway ports of the Greater Region. Besides that, the project did not relate to cross-border transport (INTERREG IVB NWE n.y.e). The project **CITIZENSRAIL** focused on the support for regional rail transport instead of high speed rail networks. However, it did not relate to cross-border transport and did not involve partners from the Greater Region (INTERREG IVB NWE n.y.o). Still it might have an indirect influence on the regional rail transport within the Greater Region. The project **Ecologistics** involved partners from the Luxembourg Institute of Science and Technology, and Logistics in Wallonia. It developed a ICT tool to better coordinate international freight flows in North-West Europe for SMEs (INTERREG IVB NWE

n.y.g). This tool might be applied in the Greater Region and facilitate the transport of goods across borders. The project **ICMA** developed alternative solutions for last mile accesses to public transport and aimed at making public transport more attractive. It involved partners from Luxembourg (CEPS/INSTEAD) as well as Pirmasens (DE) (INTERREG IVB NWE n.y.c). It, however, did not address cross-border transport. Still it might indirectly influence the transport within the Greater Region. **INLANAV** did not involve partners from the Greater Region (INTERREG IVB NWE n.y.h), however, the project's results might be applied in the Greater Region as the project focused on the transport of freight on the cross-border region's rivers.

Project name	Thematic focus	Funding period	Approx. ERDF support					
BAPTS	Urban Public Transport	01/2008 - 04/2012	7.7 million €					
CCP21	Inland waterway ports	09/2009 - 12/2014	3.9 million €					
CITIZENSRAIL	Supporting regional rail transport	10/2010 - 09/2015	4.5 million €					
Ecologistics	Development of a ICT tool for better freight logistics	01/2011 - 09-2015	4.2 million €					
ICMA	Last mile access of public transport	08/2007 - 06/2012	3.6 million €					
INLANAV	Freight transport on small inland waterways	10/2009 - 07/2012	0.5 million €					
INTRADE	Development of intelligent autonomous vehicles in sea ports	10/2007 - 03/2015	3.7 million €					
ITN	Cross-border coordination of intermodal freight transport services between sea ports and railways	01/2010 - 09/2015	2.8 million €					
WEASTFLOWS	Improving intermodal freight transport	01/2010 - 06/2015	4.6 million €					
NISTO	Development of a sustainability evaluation tool for local transport projects	01/2012 - 12/2015	1.5 million €					
WATERTRUCK	Freight transport on small inland waterways	20/2008 - 12/2014	1.1 million €					
TramStore21	Development of tramway depots	08/2007 - 10/2013	5.4 million €					
Ticket to Kyoto	Reduction of CO <sub>2</sub> emissions in public transport	03/2010 - 12/2014	6.0 million €					
SCALE	Transport of agri-food	04/2011 - 09/2015	3.4 million €					
LaMiLo	Improvement of last mile freight transport	05/2011 - 06/2015	3.7 million €					
Numericanal	Connection of smaller inland waterways to the TEN-T network	05/2011 - 09/2015	1.9 million €					
RoCK	Creation of international rail connections	07/2007 - 06/2015	5.9 million €					
NweRIDE	Development of a network of ridesharing platforms	01/2012 - 09/2015	0.9 million €					
Source: Author, Kaiserslautern, 2017, based on INTERREG IVB NWE n.y.p, n.y.b, n.y.e, n.y.o, n.y.g, n.y.c, n.y.h,								

Table 58: Further INTERREG B transport projects of North West Europe (2007-2013)

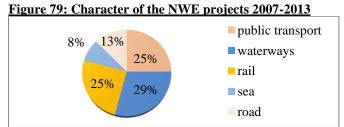
Source: Author, Kaiserslautern, 2017, based on INTERREG IVB NWE n.y.p, n.y.b, n.y.e, n.y.o, n.y.g, n.y.c, n.y.h, n.y.i, n.y.j, n.y.l, n.y.m, n.y.n, n.y.k, n.y.q, n.y.d, n.y.s, n.y.u, n.y.r, n.y.a.

The **ITN** project focused on the enhancement of intermodal transport services between the two sea ports Antwerp and Rotterdam and the North-West European rail network. Joint rail services were to be developed across borders which move freight from different inland logistical hubs in different countries to the sea ports to make the transport more efficient. No partner from the Greater Region was involved (INTERREG IVB NWE n.y.j). Still as the project related to cross-border transport coordination the findings and experiences might be of benefit for the development of cross-border freight transport in the Greater Region to some extent. **LaMiLo** involved one partner from Luxembourg. It aimed at exchanging information and involved many partners to commonly develop a common efficient logistical approach. However, it did not focus on cross-border transport (INTERREG IVB NWE n.y.l). The **NISTO** project developed an evaluation toolkit which is freely accessible online. It can be applied to assess the sustainability of a mobility plan. This tool is not particularly focused on an application in a cross-border framework but could be made use of also in the Greater Region. The project did not involve a partner from the Greater Region (INTERREG IVB NWE n.y.m). **Numericanal** did not involve partners from the Greater Region. It focused on the better management of smaller inland waterways and their connection to the TEN-T. A similar project – **WATERTRUCK** – also promoted smaller inland

waterways. Push barges were to facilitate freight transport. Both projects did not focus on cross-border transport (INTERREG IVB NWE n.y.n, n.y.a). The project NweRIDE developed a platform for the coordination of ridesharing networks and the coordination with public transport. The developed applications were also tested in cross-border transport in the cross-border region between Belgium and the Netherlands. Only a Belgium partner from the Greater Region was involved (INTERREG IVB NWE n.y.k). Still, the results might be applied in the Greater Region. The project **RoCK** did not invest in cross-border infrastructures but facilitated the coordination and creation of long distance rail connections including the establishment of relevant infrastructures across national borders between certain cities outside the Greater Region. Administrative and legal barriers were to be overcome (INTERREG IVB NWE n.y.q). As no partners from the Greater Region were involved, the project did not have a direct influence on the region's cross-border transport. Still the Greater Region might learn from this project. The project WEASTFLOWS dealt with efficient freight transport within North-West Europe. It also involved a Luxembourgish research institute. However, besides that, no other partner from the Greater Region was involved. Also, the pilot actions did not concern the cross-border region or other cross-border transport connections. Instead it was focused on national scales (INTERREG IVB NWE n.y.s). Therefore, the project is not considered to have had a direct influence on cross-border transport in the Greater Region.

# Thematic focus of the INTERREG B projects and their aims (2007-2013)

**Figure 80** shows that all transport-related EU policy aims were mentioned at least by one of the 20 transport-related projects although several were not integrated into the Operational Programme. All projects contribute to the exchange of practices or better coordination. Besides that, half of the projects aimed at improving urban or soft mobility. Some also aimed at increasing the user-friendliness and one even supported the development of freight corridors.



#### Source: Author, Kaiserslautern, 2017.

The projects addressed passenger and freight transport to a similar degree. As can be seen in **Figure 79** the majority of the projects addressed public transport, waterways or rail transport. Several projects addressed several transport modes at once, respectively intermodal transport. Several projects conducted studies instead of concrete transport infrastructure or service investments.

As can be seen in **Figure 80**, the cross-border transport-related objectives were aimed at less frequently than by the INTERREG A projects. 20% of the projects wanted to improve cross-border projects, only 15% aimed at enhancing cross-border transport infrastructures and 25% contributed to a better linkage of TEN-T and secondary networks. The later objective is more prominent than in the INTERREG A projects.

Compared to INTERREG A projects the more technical transport infrastructure and freight transportrelated objectives were treated more frequently than passenger transport. Transport services were mentioned less frequently than transport infrastructures. All projects dealt with at least one of the 'environmental and sustainability issues'-objectives. The INTERREG B programme and projects consider the broad range of EU policy objective whereas the INTERREG A projects have a more

selective focus. The projects addressed even objectives which were not explicitly named in the Operational Programme.

	0	10	20	30	40	50	60	70	80	90	100
Transport infrastructure network											95
Remove barriers, improve efficiency										85	
Linking TEN-T and secondary networks				25							
Relieve routes/ fighting congestion				-	35						
Intermodality/ interoperability						50	)				
Intelligent transport systems			_	-			55				
Freight corridors	-	5									
New technologies/innovations (research)									75		
Improving mobility of freight								70	)		
Improving mobility of passengers						50	)				
Accessibility of remote areas				30							
Cross-border infrastructures		_	15								
User-friendliness				-	35						
Transport services								70			
(Urban) public and soft mobility	-					50	)				
Transport safety				25							
Cross-border services			- 20	)							
Environmental and sustainability issues											
Alternative modes of transport										85	
Alternative fuels/ climate change					35						
Minimising environmental harm								65			
Sustainable transport				_			55				
Exchange of practices/ coordination				_	_	_	_		<u> </u>		
OP North West Europe	policy	2007	-2013		INTEI	RREG	BNW	E proj	ects 2	007-20	)13

#### Figure 80: Contribution of the NWE INTERREG B projects (2007-2013) to the EU policy objectives

Source: Author, Kaiserslautern, 2017.

#### 2014-2020

The **Cooperation Programme** of North-West Europe was already described in detail in **chapter 5.2.2** but is summarized briefly in the following.

According to the programme director, the discussions on the cooperation programme led to a more focused definition of the programme with three priorities. Transport was consciously excluded from the priorities because many transport projects were supported already during the earlier funding period (Interview Louwers 2016). Still, the Cooperation Programme aims at minimizing the transport energy consumption,  $CO_2$  emissions and environmental harm. Therefore, alternative modes and fuels as well as and multimodal transport chains are promoted. Besides that, passenger and freight transport shall be reduced. Mobility shall become more sustainable. Additionally, transnational intelligent and innovative traffic management systems shall be developed. The programme relates to only 46% of the EU policies' objectives because it was decided not to choose a pure transport focused priority. Instead solely projects which contribute to a  $CO_2$  reduction can be supported in the field of transport. Until spring 2017 solely one project was accepted in the field of transport (see

# **Table** 59).

This project (**CHIPS**) focuses on bicycle highways which efficiently link rural and urban areas and facilitate the mobility of commuters as alternative to the individual car. The project does not investigate cross-border transport commuters. It involves partners from Germany and Belgium among others,

however, they are not situated within the Greater Region (Interreg North-West Europe Programme n.y.). Still the project might have an indirect influence on the cross-border transport if the findings are transferred into the cross-border region.

Project name	Thematic focus	Funding period	Approx. ERDF support
CHIPS	Development of bicycle highways for commuters between urban and rural regions	2016 - 2019	2.7 million €

Table 59: North-West Europe INTERREG B transport	nrojects	(2014 - 2020)
Table 57. Horder West Burger Harden D transport	projecto	

Source: ibid.

# Thematic focus of the INTERREG B projects and their aims (2014-2020)

As only one project has been funded so far, no significant tendencies could be derived in Figure 81.

## Figure 81: Present contribution of the INTERREG B projects (2014-2020) to the EU policy objectives

	0	10	20	30	40	50	60	70	80	90	100
Transport infrastructure network											
Remove barriers, improve efficiency											
Linking TEN-T and secondary networks											1
Relieve routes/ fighting congestion											-
Intermodality/ interoperability				-	-	-	-				
Intelligent transport systems		-	-								
Freight corridors	]										
New technologies/innovations (research)											
Improving mobility of freight											
Improving mobility of passengers											
Accessibility of remote areas											
Cross-border infrastructures											
User-friendliness											
Transport services	_										
(Urban) public and soft mobility	_										
Transport safety											
Cross-border services	-										
Environmental and sustainability issues											
Alternative modes of transport											
Alternative fuels/ climate change											
Minimising environmental harm											
Sustainable transport											
Exchange of practices/ coordination	) <b>—</b>	-	-	-	<u> </u>						
CP North West Europe EU	policy	/ 2014	-2020		INTE	RREG	B proj	ects N	WE 20	014-20	20

Source: Author, Kaiserslautern, 2017.

Despite or because of the strong concentration of the Cooperation Programme on few EU policy objectives the project mentions more than those objectives defined in the Cooperation Programme. It does not explicitly relate to sustainable transport and the reduction of environmental harm. As it copes with passenger transport, no freight related objectives were mentioned.

No cross-border transport-related objectives were mentioned. As the project is very new and not completed it is difficult to evaluate its practical output. Therefore, during the current funding period no influence of the INTERREG B projects on the cross-border transport in the Greater Region has existed so far. Additionally, no large influence is expected to be achieved in the future as the cooperation programme does not support cross-border transport-related objectives.

# TEN-T

The TEN-T programme offers higher funds to cross-border projects because they are a priority of the European Commission. Therefore, the member states are pushed to prioritize projects which contain cross-border sections. The Corridor Coordinators are also interested in linking the different national parts of the corridor better. Thus, they promote cross-border projects as well.

In the following TEN-T projects which have influenced the cross-border transport of the Greater Region are described. Only projects which clear focus on cross-border transport are taken into account. Projects with general investments in EU wide infrastructure were excluded from the analysis.

# <u>2007-2013</u>

During the funding period 2007-2013 the EU supported the TEN-T priority project, **High speed** railway axis east' (PP4) which crossed the territory of the Greater Region. This project aimed at improving the rail connection between the cities Paris, Nancy (FR), Luxembourg (LUX), Saarbrücken and Mannheim (DE) and at connecting the infrastructure to the European transport network. Additionally, road traffic was to be shifted to railways (European Commission, DG Move, and INEA 2012, 54).

Furthermore, the priority project 28 'EuroCapRail' concerns the cross-border region, particularly Belgium, Luxembourg and France. This project focused on the modernization and increase of the speed of the passenger rail line between the European 'capitals' Bruxelles, Luxembourg and Strasbourg and is based on a bilateral agreement between Luxembourg and Belgium to commonly implement the modernization across-borders and to make the train connections faster. Due to the mountainous territory, however, it cannot become a high speed line (Interview Demilie 2016). The section between Arlon (BE) and Kleinbettingen (LUX) is currently re-electrified and upgraded from 3 kV direct current to 25 kV alternating current. This re-electrification in alternating current is to be continued until Namur (BE) in the future (Interview Demilie 2016; Interview Bissen 2016). Thereby all Luxembourgish rail connections will be operated in alternating current which is a high technical benefit and contributes to the harmonization of the technical systems across borders (Interview Bissen 2016). The project is said to be important for the Belgium national administrative level. Its implementation has taken a long time because it is very expensive and the transport on the existing line has to be maintained while modernizing the track (Interview Demilie 2016). The EU financial support is said to have been very important for the EuroCapRail development because of financial constraints in the national budgets. The EU funded the development during the last funding period (2007-2013) and will support it in the current framework (2014-2020) (Interview Demilie 2016; Interview Bissen 2016). The project is said to have a high priority for the EU (Interview Balázs 2016). Castagne from Wallonia, however, questions the final implementation of the project because of many delays and an apparently changed Luxembourgish strategy (Interview Castagne 2016). According to Vidal, the Belgian national policy documents seem not to envisage investments for the project. Therefore the further implementation of the project – as envisaged by the transport project priority list of the Greater Region as well – is not expected in the short run (Interview Vidal 2016). The mutually contradicting statements of Luxembourgish and Belgian stakeholders show the difficulties in coordinating such a cross-border development.

In addition to the priority projects 4 and 28 two **rail freight corridors** (**no. 2 and 4**) were defined by the EU which partly crossed the cross-border region. According to Balázs, the rail freight corridor from the BENELUX countries to France and Germany is considered to be a well-organized cross-border transport system which contributed to the cross-border transport of the Greater Region (Interview Balázs 2016).

The TEN-T programme funded projects which contributed to the implementation of the **priority projects** and further important general objectives (INEA 2017b). The projects with relevance for the Greater Region are described in the following. A map of the smaller projects' locations can be found in the **appendix**. Pure national projects without relation to cross-border transport were excluded from the analysis. Additionally, EU wide TEN-T projects have been excluded as they are expected not to particularly support the case study cross-border region.

**2006-DE-402-P:** Railway link Paris-East-France-South-West-Germany, Upgrade of the Ludwigshafen-Saarbrücken section (funding period 01/2006 - 10/2008; EU funds: approx. 6.8 million Euros)

The section between Ludwigshafen and Saarbrücken (DE) of the railway link Paris-East-France-South-West-Germany was to be upgraded to allow a higher travel speed. Also the security and communication technologies and the catenary were renewed (TEN-T EA 2011c).

**2006-DE-PP402b:** ETCS Pilot POS Nord (funding period 01/2006 - 12/2009; EU funds: approx. 8.9 million Euros)

The project supported a pilot implementation of the ERTMS system on rail tracks between the German cities Landstuhl and Saarbrücken which lead to France. A prototype for German long-distance trains was to be developed and implemented on this track. This was to be tested and staff trained. Additionally, the trains were to be equipped with the necessary infrastructures. Additionally, tests with France were to be conducted. The project was said to be of high importance for a smooth railway connection between France and Germany (TEN-T EA 2012b).

**2006-FR-401c-S** - High speed railway line "LGV Est" section Vaires-Baudrecourt-Saarbrücken: Migration of ERTMS, corridor Paris-Frankfurt (funding period 05/2006 - 12/2009; EU funds: approx. 8.0 million Euros)

This project concerns the same rail connection as the two previous projects between Paris and Ludwigshafen via Saarbrücken. In this case, the French part of the track was to be provided with ERTMS/ECTS. Before, studies were conducted on the section between Vaires-Baudrecourt (FR) and Saarbrücken (DE). A special transmission module for signalling was to be developed for the French trains. Additionally, the functioning of the ECTS system was to be validated and studies on the cross-border connection between Germany and France were to be conducted. The project was said to be very relevant for the future rail transport between Germany and France as well (TEN-T EA 2011b).

The expansion of the *POS-Nord* track between Baudrecourt (FR) and Ludwigshafen (DE) which was enhanced by the previous three projects is said to have been financed by 20% from the TEN-T funds (Interview Harmeling 2016).

**2007-BE-28050-P** - EuroCapRail on the Brussels-Luxembourg-Strasbourg railway axis (funding period: 01/2007 – 12/2015; EU funds: approx. 15.7 million Euros)

The project aimed at contributing to the EuroCapRail priority project 28. The Belgian part of the track between Brussels and the Luxembourgish border was to be modernized. This was to allow a higher train speed on this track. Curves were to be minimized and the track spaces to be harmonized. Additionally, several rail stations on the track were to be modernized. Thereby the project should increase the safety, and comfort of the train journey (TEN-T EA 2014b).

**2007-DE-04020-P**: Works for the construction of the high-speed rail line section between Saarbrücken and Ludwigshafen (funding period: 01/2007 – 12/2015; EU funds: approx. 18.2 million Euros)

The project supported the implementation of priority project 4, by removing a bottleneck on the railway connection between Saarbrücken and Ludwigshafen in Germany. The track was to be upgraded to

reduce the travel time. This contained line alignments, clearing level crossings, widening bridges and the renovation of tunnels. Additionally, the communication and safety infrastructure was to be updated to the ETCS system. Furthermore, noise protection infrastructures were installed (TEN-T EA 2014i).

**2007-LU-28020-P** EuroCapRail: modernisation of the Brussels-Luxembourg-Strasbourg rail axis (funding period: 03/2009 – 12/2015; EU funds: approx. 3.0 million Euros)

This project aimed at fostering the implementation of the Luxembourgish part of the priority project 28 as well. The passenger rail connection between Brussels, Luxembourg and Strasbourg was to be made safer, faster and more comfortable. In this project the section between Cessange and Kleinbettingen close to the Belgian and French border was to be modernized. Additionally, the train station of Bettembourg was to be renovated (TEN-T EA 2014c).

**2008-LU-91700-P** - Deployment of ETCS Level 1 on Luxembourg railway network (funding period: 06/2008 – 12/2008; EU funds: approx. 0.2 million Euros)

With this project the Luxembourgish railway network was equipped with ERTMS to contribute to the European interoperability of rail infrastructures and increase the safety of passenger and rail transport. The project implemented the ERTMS system between Cruchten and Bürden, Bürden-Troisvierges to the Walloon border, Dommeldange and Mersch as well as between Kautenbach and Wiltz (TEN-T EA 2011a).

**2009-FR-60132-P** - Migration of the French East European High-Speed Line to Specification Baseline 2.3.0.d (funding period: 11/2009 – 12/2013; EU funds: approx. 1 million Euros)

Based on this project the rail section between Vaires-Baudrecourt was to be equipped with the second ERTMS version in parallel to the French TVM 430 system so that French and international trains could use the tracks. Additionally, a safety assessment was to be conducted to authorize the two systems. Furthermore, a coordination system was to be installed (TEN-T EA 2015c).

**2010-DE-92252-P:** Construction of the second lock basin in Trier (Mosel) (funding period: 09/2010 – 12/2012; EU funds: approx. 2.4 million Euros)

The project was to establish a second lock on the Mosel river to cope with growing waterway transport. Thereby the waiting times of waterway freight transport were to be reduced. This lock was said to improve the connection of Luxembourg and Lorraine to the Rhine river as well as via the Saar river, i.e. to the Saarland (TEN-T EA 2012a).

**2010-FR-70204-P** - River Information Services II (RIS II) (funding period: 01/2010 – 12/2013; EU funds: approx. 1.2 million Euros)

The project dealt with river information services (RIS). It aimed at equipping pusher boats with transponders on the French gauge waterway network. Besides that, an Automatic Identification System was to be installed on the French part of the Mosel and Rhine rivers. Based on the therewith collected data, new services were to be developed which improved the quality and made waterway and multimodal transport more attractive (TEN-T EA 2014e). The project concerns the border rivers Mosel and Rhine which are situated in the Greater Region.

**2011-EU-95088-S** - Studies, managerial structures and activities for the establishment of Rail Freight Corridor 2 (funding period: 04/2012 - 12/2014; EU funds: approx. 1.3 million Euros)

The project aimed at contributing to the implementation of rail freight corridor 2. In this context studies were conducted and management structures for the corridor implementation were created. An investment plan, as well as a development strategy were to be developed together with a platform for

the administration of the corridor (one stop shop). Additionally, information on the infrastructures and services of the corridor was to be promoted (TEN-T EA 2014h).

**2011-EU-95107-S** - Regulation 913/2010 concerning a European Rail Network for competitive freight: Implementation of rail freight corridor 4 (funding period: 04/2012 - 12/2014; EU funds: approx. 1.1 million Euros)

The project aimed at contributing to the implementation of rail freight corridor 4. For that purpose, several studies were conducted that evaluated the existing infrastructure and capacities, as well as the transport market demand. Thereby the corridor's future potentials were to be estimated to design new operational concepts and decide about infrastructure investments. An implementation plan was to be developed. Additionally, information on the corridor's status quo was to be offered (TEN-T EA 2014d).

**2012-LU-28025-S** - Studies regarding the construction of a new section providing a direct link between Luxembourg Station and Bettembourg and the upgrading of Bettembourg Station (funding period: 01/2012 - 12/2015; EU funds: approx. 4.8 million Euros)

The project conducted studies on the Luxembourgish part of the EuroCapRail priority project. Studies on the construction and design as well as the implementation of the new railway section between the main train station of Luxembourg and Bettembourg, located at the French border, were to be conducted. The new section was to be established to complement an existing rail connection. Additionally, a study on the renovation of the rail station of Bettembourg was to be conducted (TEN-T EA 2014g).

**2012-DE-91156-P** - Construction of the second Mosel lock in Trier (funding period: 03/2013 – 12/2015; EU funds: approx. 2.7 million Euros)

This project aimed at supporting the construction of parts of a lock on the Mosel river to complement the existing one. New separation moles, a building pit and the bottom plate were to be established. Additionally, the close by area was to be rehabilitated and a flood area was to be created as environmental compensation measure (TEN-T EA 2015a). This lock is situated at the Luxembourgish border and was therefore also important for Luxembourg.

**2012-EU-94152-S** - Studies and activities for further developments of Rail Freight Corridor 2, its promotion and the upgrade of its infrastructure (funding period: 03/2013 - 12/2015; EU funds: approx. 1.9 million Euros)

The project aimed at making the rail freight corridor no. 2 more efficient. In this context the performance of the corridor was to be monitored. Furthermore, the information on the corridor development should be updated and made more visible. The cooperation of important railway stakeholders was to be ensured. Additionally, a geographic information system containing information on the corridor was to be developed. A study on an increase of the loading gauge of the rail freight corridor was to be conducted as well to react on the market demand (TEN-T EA 2015f).

**2013-BE-60012-P** - Installation of the ETCS cab signalling system on 64 cabs of M6 double-deck carriages used for the operation of the Brussels-Luxembourg intercity line (funding period: 01/2013 - 12/2015; EU funds: approx. 4.8 million Euros)

The project implemented an upgrade of the ETCS system in Belgium and Luxembourg for double deck carriages. Before, tests were to be conducted to ensure the interoperability with the current train lines. The project was to contribute to the putting in service of the double deck carriages by the national rail safety authorities (TEN-T EA 2015b).

**2013-EU-50006-P** - The Arc Atlantique Traffic Management Corridor (funding period: 01/2013 – 12/2015; EU funds: approx. 22.3 million Euros)

This project was to link important urban nodes which each other, among others, Charleroi and Liège. The connection between the nodes was to be improved by providing an ITS system. Thereby congestions were expected to be reduced. Several traffic management systems were to be developed (TEN-T EA 2015g).

**2013-EU-91053-S** - Regulation (EU) 913/2010, (EU) 1315/2013 and (EU) 1316/2013 - Acceleration/facilitation of the implementation of the Atlantic Corridor (funding period: 03/2014 - 12/2015; EU funds: approx. 1.1 million Euros)

The project was to contribute to rail freight corridor no. 4. Among others, the sections between Metz and Strasbourg as well as between Saarbrücken and Mannheim were to be analysed. Necessary actions concerning the management, strategies and implementations were to be identified. Additionally, the influence of the existing infrastructure challenges on the corridor operation was to be evaluated. Further studies were to be conducted concerning the capacities, coordination of the operation, the infrastructure and its potential (TEN-T EA 2015d).

**2013-FR-91063-S** - Studies on the on the modernisation of the locks on the Moselle river (funding period: 03/2014 - 12/2015; EU funds: approx. 2.6 million Euros)

The project developed studies on the enhancement of the locks on the Mosel river. Studies on safety issues and tele-control were to be conducted for each lock to identify risks and to prevent them. Additionally, a human resource management plan was to be developed (TEN-T EA 2014f).

**2013-LU-60009-P** - Upgrade/Retrofitment of Locomotives with ETCS (funding period: 10/2014 – 12/2015; EU funds: approx. 0.5 million Euros)

The project supported the upgrade of Luxembourgish locomotives with different ETCS systems to make rail freight transport safer, more interoperable across borders and more competitive (TEN-T EA 2015h).

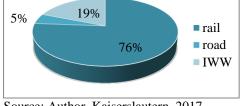
**2013-LU-60004-P** - Retrofitment of ETCS 2.3.0d on 15 Class 66 Locomotives owned by Ascendos Rail Leasing Sarl (funding period: 03/2014 – 12/2015; EU funds: approx. 1.1 million Euros)

The project supported the retrofitting of Dutch, Belgian and German locomotives to the new ETCS system. Thereby the railway services were to become more interoperable across borders (TEN-T EA 2015e).

# Thematic focus of the TEN-T projects (2007-2013) and their aims

The majority of the TEN-T projects with relevance for cross-border transport that were funded in the Greater Region between 2007 and 2013 focused on rail transport (see **Figure 82**). Four projects focused on inland waterway infrastructures and only one project on road transport. The majority of the projects (60%) supported the improvement of national tracks which are located in the vicinity of the border.

# Figure 82: Contribution of the TEN-T projects (2007-2013) to transport modes (n=21)



Source: Author, Kaiserslautern, 2017.

As can be seen in **Figure 83** the 21 TEN-T projects with relevance for the Greater Region followed a broad variety of EU policy objectives.

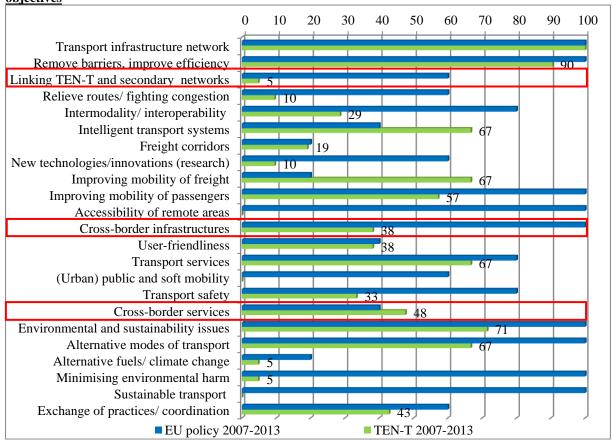


Figure 83: Contribution of the TEN-T projects (2007-2013) in the Greater Region to the EU policy	
objectives	

Source: Author, Kaiserslautern, 2017.

Despite being important EU objectives none of the projects contributed to the accessibility of remote areas or explicitly to sustainable transport. Additionally, no project addressed urban or soft mobility. All funded projects aimed at contributing to infrastructure improvements. Comparable popular objectives were the removal of transport barriers and more efficient transport infrastructures. Still more projects aimed at improving **cross-border services** (48%) than **cross-border infrastructures** (38%). Six of 12 projects mentioned both objectives. The linkage of TEN-T and secondary networks was supported only by one project. The support for freight transport was addressed slightly more often than passenger transport. Intelligent transport systems, transport services and alternative modes of transport are also often named objectives.

The relevance of the objectives promoted in the EU policies seems not to have been crucial for the choice of the projects: some strongly promoted EU objectives were chosen whereas others were addressed by few projects or none. Instead, the projects focused on the improvement of the priority tracks and their individual challenges. Often, several projects supported the same priority project or rail freight corridor.

# 2014-2020

The current funding period (2014-2020) newly introduced the **TEN-T core network corridors**. Their development was based on an expert analysis and forecast of trade and passenger flows within the EU without considering national administrative borders. In the next step the national borders were taken into account and necessary border crossings were marked. Both steps resulted in the definition of the

core network corridors. The relevant connections of the core network corridors between the member states were discussed individually with the latter. National criteria was taken on board to ensure a high interest in developed projects (Interview Balázs 2016). Luxembourg, for instance, is said to have strongly influenced the spatial configuration of the TEN-T North Sea Mediterranean core network corridor on its territory. The tracks on which investments had already been planned by Luxembourg were to become parts of the corridor to be able to benefit from additional EU funds. In the negotiations on the definition of the TEN-T corridor connecting Luxembourg and Belgium it was discussed much with the European Commission until the Luxembourgish aims were implemented (Interview Bissen 2016). Also the national Belgian and German level have aimed at influencing the TEN-T corridors (Interview Demilie 2016; Interview Kurnol 2016). In addition to the national levels' influence, the TEN-T corridors' routing is said to have been also shaped by the regional political levels. An example is the influence of regional stakeholders of the INTERREG projects SCANDRIA and SONORA that are said to have strongly shaped the routing of the Scandinavian-Mediterranean Corridor (Interview Kurnol 2016). Also the regional Belgian administrative levels are said to have been indirectly involved in the decisions about the routing of the TEN-T network as the different Belgian regional objectives were coordinated at the national level (Interview Demilie 2016). As the routing of the TEN-T corridors was influenced by the member states the corridors are expected not to contradict national transport development objectives but correspond to important national axes (Interview Harmeling 2016).

Since the decision about the routing of the core network corridors, the core network coordinators are said to have been in frequent contact with the national governments – bilaterally or via the corridor forum - in order to be informed about the national interests and to ensure the national support for the trans-European transport proposals (Interview Balázs 2016). Every year the EU coordinators develop new corridor work plans which contain projects that were coordinated with the member states and other stakeholders in the corridor forums (ibid.). Additionally, the Commission asks the transport ministers of the member states to comment on the work plans and approve them once they are established (Interview Demilie 2016). Afterwards the work plans are presented in a hearing in the European Parliament and made public (Interview Balázs 2016).

The TEN-T core network corridor **North Sea Mediterranean** contains two urban nodes which are situated directly in the cross-border region: Metz (FR) and Luxembourg (LUX) (European Commission and DG Move 2017c). The rail connection between Bruxelles (BE) and Luxembourg (LUX) is one of the corridors' cross-border sections (Balázs 2015). The **Atlantic** corridor solely defines the node Metz (FR) which is situated in the cross-border region (European Commission and DG Move 2017a). One of the corridor's cross-border sections is situated in the Greater Region and concerns the rail track between Mannheim (DE) and Metz (FR) (Secchi 2015). The objectives of both corridor work plans were already presented in **chapter 5.1.4** and are therefore not repeated here.

During the current funding period (2014-2020) the Connecting Europe Facility has funded pre-identified projects that shall contribute to the implementation of the core network corridors as well as further relevant projects (INEA 2017a). The 13 projects with relevance for the Greater Region which were published until spring 2017 will be described in the following. As the funding period has not been completed until the time of writing, more projects are expected to be funded in the future.

A map of the projects' locations can be found in the **appendix**. Again, pure national projects without relation to cross-border transport as well as EU wide TEN-T projects were excluded from the analysis because they are expected not to particularly support the case study cross-border region.

**2014-BE-TA-0621-W** - LoNofts - "Low Noise freight transport solution" (funding period: 05/2015 – 04/2018; EU funds: approx. 0.6 million Euros)

The project funds the equipment of Belgian freight trains with silent blocks. These investments have also been taken in the neighbouring countries to reduce the noise pollution of the crossed territories. Over 1.000 wagons are to be upgraded to be in line with EU regulations (Innovation and Networks Executive Agency 2015f).

**2014-BE-TM-0653-W** - Improvement of the railway connection between Louvain-la-Neuve and Luxembourg (EuroCapRail) (funding period: 07/2014 – 12/2019; EU funds: approx. 7.2 million Euros)

The project focuses on a railway section between Hatrival in the Belgian province of Luxembourg and the Luxembourgish border which belongs to the North Sea Mediterranean Corridor and the EuroCapRail connection. The infrastructure is to be modernized and the current system for electric traction is to be increased to 25 kV (Innovation and Networks Executive Agency 2016b) which is also used in France and Luxembourg.

**2014-DE-TA-0326-W** - MEDAS 3.0 - Greening the automotive supply chain by a sustainable just in time Mediterranean rail shuttle service (funding period: 01/2014 - 12/2016; EU funds: approx. 1.1 million Euros)

The project was to enhance the freight transport on the rail tracks of the Atlantic Corridor. The logistic chain should become more sustainable and punctual while reducing  $CO_2$  emissions (Innovation and Networks Executive Agency 2015g). As the corridor links Lorraine to the Saarland and Rhineland-Palatinate, the project is expected to have an influence on the cross-border transport of freight in the Greater Region.

**2014-DE-TM-0138-W** - Upgraded line 23 Saarbrücken–Ludwigshafen (POS Nord), Upgrade of the Neustadt–Böhl-Iggelheim and Landstuhl–Kaiserslautern route sections for v = 200 km/h, implementation of ETCS (funding period: 01/2014 - 12/2019; EU funds: approx. 26.9 million Euros)

This project invests in the upgrade of the rail network between Saarbrücken and Ludwigshafen to increase the travel speed and connect the French and German high-speed networks. Studies as well as infrastructure investments are to be conducted and the ETCS equipment is to be implemented (Innovation and Networks Executive Agency n.y.).

**2014-EU-TM-0043-S** - Improvement and promotion of the North Sea–Mediterranean Rail Freight Corridor (funding period: 01/2015 – 12/2018; EU funds: approx. 2.4 million Euros)

The project aims at improving the North Sea Mediterranean rail freight transport corridor and thereby shifting freight transport from road to rail. Studies on the corridor interoperability are to be conducted and the management across borders is to be improved. Information and older studies of the corridor are to be updated. The studies shall be used as basis for further development investments in the corridor. Cross-border traffic is to be facilitated (Innovation and Networks Executive Agency 2015e).

**2014-EU-TM-0050-S** - Development of Rail Freight Corridor Atlantic (funding period: 01/2016 – 12/2020; EU funds: approx. 3.1 million Euros)

This project focuses on rail freight transport of the Atlantic Corridor. The coordination of transport and infrastructure investments across borders and the information capacity of the corridor are to be enhanced (Innovation and Networks Executive Agency 2015c). As the corridor crosses the Greater Region and links Germany and France the project is expected to be of benefit.

**2014-EU-TM-0597-W** – Arc Atlantique Corridor Phase 2 (funding period: 01/2014 – 12/2017; EU funds: approx. 23.0 million Euros)

The project supports the equipment of the North Sea Mediterranean and the Atlantic Corridor with ITS services on the roads. Thereby cross-border transport shall be facilitated and made safer, more efficient and reduce the environmental burden (Innovation and Networks Executive Agency 2015a).

**2014-FR-TM-0090-W** - Multiannual program to upgrade to ERTMS Baseline 3 the 214 high speed trains TGVs already fitted with ETCS on board (funding period: 02/2015 - 03/2019; EU funds: approx. 8.5 million Euros)

The project invests into the equipment of 214 French high-speed trains with a new version of ERTMS to increase the interoperability of these trains with the neighbouring countries.

**2014-LU-TM-0410-W** - Retrofitment of Locomotives with ETCS Baseline 3 (funding period: 12/2015 – 05/2019; EU funds: approx. 7.3 million Euros)

The project aims at equipping 31 Luxembourgish locomotives with new ETCS standards to facilitate the usage across borders. This is to facilitate new cross-border lines on the TEN-T core network corridors (Innovation and Networks Executive Agency 2016d).

**2014-LU-TM-0257-W** - Section Brussel-Luxembourg-Strasbourg "EuroCap-Rail" – direct link between Luxembourg Station and Bettembourg Station (funding period: 06/2016 – 12/2019; EU funds: approx. 63.7 million Euros)

The project funds a rail track bottleneck between Luxembourg and Bettembourg (LUX) that belongs to the EuroCapRail connection and the North Sea Mediterranean Corridor. Two rail tracks are to be established. Thereby rail transport shall become more attractive than road transport. Also cross-border commuters to Luxembourg are expected to benefit from this investment (Innovation and Networks Executive Agency 2015h).

**2015-EU-TM-0036-W** and **2015-EU-TM-0038-W** - River Information Services Corridor Management Execution (funding period: 02/2016 – 12/2020; EU funds: approx. 5.7 million + 9.9 million Euros)

These two projects focus on the coordination of river information services across borders. 13 countries – among others, France, Germany, Belgium and Luxembourg - are involved in the project and exchange data to facilitate the management of international freight transport on inland waterways (Innovation and Networks Executive Agency 2016f, 2016e).

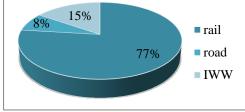
**2015-FR-TM-0258-M** - Project to install ERTMS Baseline 3 on the regional trains linking France and Luxembourg (funding period: 02/2016 – 12/2020; EU funds: approx. 5.1 million Euros)

The project shall contribute to a better interoperability of regional trains between France and Luxembourg. In this context an ERTMS prototype shall be developed and implemented for 20 cross-border trains between Nancy, Metz (FR) and Luxembourg (LUX). This connection belongs to the North Sea Mediterranean Corridor. The signalling systems are to be harmonized and the cross-border connections shall be managed more efficiently. Cross-border rail transport shall become more attractive (Innovation and Networks Executive Agency 2016c).

# Thematic focus of the TEN-T projects (2014-2020) and their objectives

Until spring 2017, 13 small TEN-T projects have been funded during the current funding period with relevance for the territory of the Greater Region. As can be seen in **Figure 84**, also during this funding period most TEN-T projects have focused on the support for rail transport. 40% of the so far funded projects invested solely in national infrastructure in the vicinity of the border.

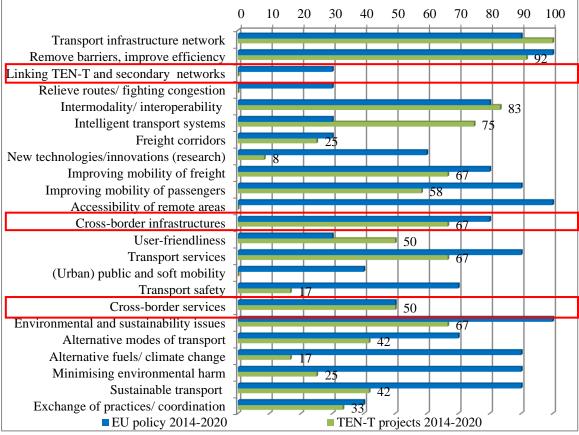
## Figure 84: Contribution of the TEN-T projects (2014-2020) to transport modes (n=13)



#### Source: Author, Kaiserslautern, 2017.

**Figure 85** shows that also during this funding period the TEN-T projects have addressed almost all EU transport-related policy objectives. Solely the four objectives 'linking TEN-T and secondary networks', 'fighting congestion', 'accessibility of remote areas' and 'urban and soft mobility' have not been chosen.

#### Figure 85: Contribution of the TEN-T projects (2014-2020) to the EU policy objectives



Source: Author, Kaiserslautern, 2017.

All projects aim at contributing to the transport infrastructure network, 67% additionally aim at contributing to transport services. During this funding period, more projects address the enhancement of cross-border infrastructures (67%) than cross-border services (50%). A higher degree of projects relates to cross-border transport compared to the earlier funding period. The linkage of TEN-T and secondary networks has not been supported by any project so far.

Other popular objectives are the 'removal of barriers' and 'intelligent transport systems', which were already strongly promoted during the last funding period, as well as the objective 'intermodality/interoperability', whose relevance was increased compared to the last period. Freight transport remains more relevant than passenger transport.

Like during the last funding period the degree of promotion of the EU policy objectives in the EU documents seems not to have been crucial for the choice of the projects. Still most EU policy objectives have been covered by the funded projects. The TEN-T projects of the current funding period have

focused their funds mainly on high speed connections and primary networks to improve the external accessibility and freight transport flows as well as to contribute to technical standardizations.

Between October 2016 and February 2017 the EU ran a '**Cross-border sections**' call for projects that aim at developing missing cross-border transport infrastructures (Interview Kiffer 2016) besides the predefined projects of the core network corridors. The projects are to be funded by the CEF and belong to the TEN-T Policy programme. Investments in cross-border sections between cross-border urban nodes can be supported. This entails studies of financial, legal or technical nature and infrastructure investments that increase the accessibility of the TEN-T core network or contribute to a better crossborder cooperation (European Commission and GD MOVE 2016, 2ff.) Because the decision on funding was taken in the end of July 2017 the projects could not be integrated in the analysis anymore.

The next section compares the relation and contribution of the three different EU programmes to crossborder transport.

## Influence of EU funded projects on cross-border transport

As can be seen in **Figure 86** the projects from the three different funding programmes favour different objectives. Also, the deviation from the EU policy objectives' relevance varies in the different programmes.

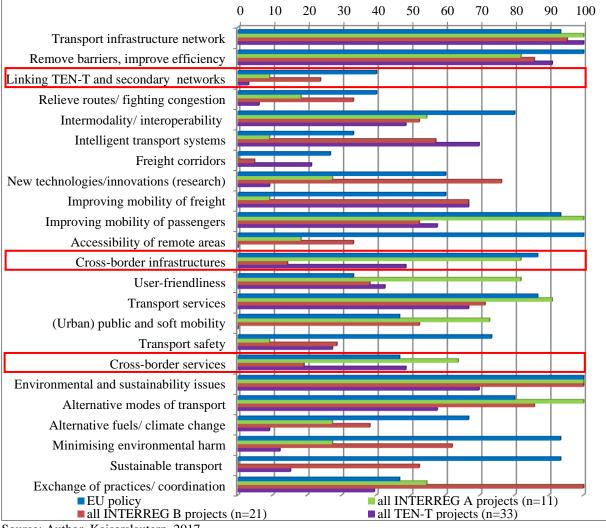
Compared to the other funds, **INTERREG A** projects particularly supported passenger transport rather than freight transport and often relate to 'cross-border infrastructures', 'cross-border services', 'userfriendliness', 'urban and soft mobility', and 'alternative modes of transport'. Outstanding objectives of **INTERREG B** projects are the 'linkage of TEN-T and secondary networks', the exchange of experiences and technical objectives such as 'intelligent transport systems', 'new technologies' or 'transport safety. However, the do not support frequently freight corridors, cross-border infrastructures and cross-border services. Thus, with the exception of the interlinkage of TEN-T and secondary networks they support cross-border transport to a rather low degree. The **TEN-T** projects particularly supported technical and freight related objectives such as 'intelligent transport systems' and 'freight corridors'. They rarely supported 'environmental and sustainability issues', including alternative fuels, 'urban and soft mobility', the 'accessibility of remote areas' and the linkage of the TEN-T and secondary networks.

The comparison shows high diversity of focuses while no concrete pattern can be drawn. On average the INTERREG B projects seem to be aligned most to the EU policies as they deviate 25% from the EU policies' average objectives' relevance. A slightly higher deviation is reached by the INTERREG A (32%) and TEN-T projects (34%). INTERREG A focuses the funds on some EU transport objectives, INTERREG B distributes the funds on all objectives. The TEN-T projects referred to almost all objectives but did not promote the improvement of the accessibility of remote areas and an enhanced urban transport. This is due to the thematic focus of the TEN-T on high speed inter-urban connections.

When having a look on the projects' relation to the **cross-border relevant objectives**, clear contributions can be observed. INTERREG B projects contribute most to the **linkage of TEN-T and secondary networks** (25%). **Cross-border infrastructures** are supported most by INTERREG A projects (80%). Also 48% of the TEN-T projects aim at improving cross-border infrastructures. **Cross-border services** are to be improved by 60% of the INTERREG A projects. 48% of the TEN-T projects aim at contributing to this objective. Only 19% of the INTERREG B projects address cross-border services. This leads to the conclusion that INTERREG A projects contribute to a strong degree to cross-border infrastructures and services. However, because of their low total number of projects compared to the TEN-T projects they do not have a stronger influence than the latter. In total numbers eight INTERREG A projects and 16 TEN-T projects have contributed to cross-border infrastructures. Cross-border services were to be improved by six INTERREG A and 16 TEN-T projects. Seven INTERREG

B projects aimed at linking the TEN-T to secondary networks whereas only two INTERREG A and two TEN-T projects contributed to this objective. The TEN-T projects are supposed to support the priority projects and core network TEN-T corridors and therefore focus their funds mainly on high speed cross-border connections and primary networks to contribute to a better external accessibility - linking major urban hubs -, freight transport flows and the technical standardization. Still when the corridors contain at least two hubs within a cross-border region, the internal cross-border sections might benefit as well. The INTERREG A projects mainly focused on small scale projects, including services and infrastructures, whereas INTERREG B projects support high speed as well as small scale transport developments with a tendency to the smaller scale and urban transport.





Source: Author, Kaiserslautern, 2017.

In general, it can be seen that the projects dealt with several EU transport objectives. Thus, the three funding programmes seem to facilitate the implementation of the EU policies' objectives.

The following **Figure 87** compares the contribution of the EU funded projects to the EU policies' objectives during the **two funding periods**. So far, no project of the new funding period has aimed at linking the TEN-T and secondary networks. Intermodality is supported to a stronger degree than during the last funding period. Thereby the objective's relevance resembles more the EU policies' objective relevance. The projects of the new funding period have contributed less to new technologies than it was done during the last funding period. During the new funding period the projects fulfil the EU policy objectives of improving the mobility of passengers and cross-border infrastructures to a higher degree.

Alternative fuels have become much more important for the EU policies during the new funding period. This importance has so far not been fulfilled by the EU funded projects. Besides the above-named differences, the contribution of the EU projects to the EU policies' objectives is similar during both funding periods. In both periods some objectives were rarely addressed by the projects such as the accessibility of remote areas whereas others were promoted frequently.

When looking at the **cross-border transport relevant objectives** it can be observed that the contribution to the linkage of TEN-T networks was low in both periods, cross-border infrastructures are supported to a higher degree during the current funding period (2014-2020) whereas the contribution to cross-border services has been similar to the EU policies' objectives relevance in both periods.

0 50 100 0 50 100 Transport infrastructure network Remove barriers, improve. Linking TEN-T and secondary ... Relieve routes/ fighting congestion Intermodality/ interoperability Intelligent transport systems Freight corridors New technologies/innovations... Improving mobility of freight Improving mobility of passengers Accessibility of remote areas Cross-border infrastructures User-friendliness Transport services (Urban) public and soft mobility Transport safety Cross-border services Environmental and. Alternative modes of transport Alternative fuels/ climate change Minimising environmental harm Sustainable transport Exchange of practices/... EU policy 2014-2020 EU policy 2007-2013 all EU funded projects 2014all EU funded projects 2007-2013 2020 (n=17) (n=48)

Figure 87: Contribution of the EU funded projects to the EU policy objectives during the two funding periods

In addition to the definition of transport-related objectives in the EU policies, the projects of the three funding programmes have been influenced on their territories by the respective **Operational and Cooperation Programmes** as well as **corridor work plans**. These were developed by the different administrative levels of the member states and EU representatives like the corridor coordinators. Additionally, the projects were not purely funded by the EU but by **co-financing** with the member states.

Source: Author, Kaiserslautern, 2017.

Because of restricted funds, particularly INTERREG A and B projects cannot invest in large scale infrastructures but have to distribute the available money on several small-scale projects. Besides that, they can complement existing projects.

In the stakeholder interviews the **visibility** of INTERREG A projects was much higher than the one of the INTERREG B and TEN-T projects (see **Figure 88**). Mostly named in relation to cross-border transport was the project Mobiregio which was funded during the funding period 2007-2013 and supported the establishment of a communication strategy and platform for public transport in the Greater Region. Also, the POS NORD project which conducted a study on the improvement of a high-speed rail track across borders and the project ELEC'TRA, which focused cross-border electro mobility, were named frequently. During the current funding period (2014-2020) a project on cross-border ticketing was named by five stakeholders. The contribution of INTERREG B projects on cross-border transport in the Greater Region is less obvious, at maximum three stakeholders mentioned on project. Additionally, although seven stakeholders mentioned the TEN-T priority project EuroCapRail and six the' high speed rail axis east' by relating to the POS-Nord track they did not name more concrete investment projects of relevance for cross-border transport. Thus, for the public and the administration the added value of the TEN-T and INTERREG B projects for cross-border transport seems to be less visible.

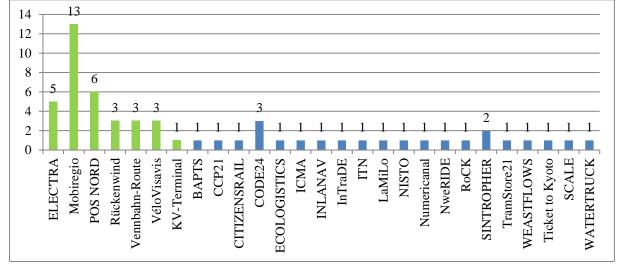


Figure 88: Popularity of INTERREG A (green) and B projects (blue) (2007-2013) in the interviews

Source: Author, Kaiserslautern, 2017.

During the current funding period (2014-2020) approximately only one third of the project numbers of the first funding period (2007-2013) have been accepted so far. Therefore, the contribution's proportions can still change in the next years. The first tendencies might indicate an increased support of the EU funded projects on cross-border infrastructures. In combination with the new 'cross-border sections' call of the TEN-T policy which was mentioned above, this might encourage even more projects in the future.

# Initiatives without EU funding

The cooperation in the existing working groups of the Greater Region (see **chapter 6.3.1**) initiated several projects. Besides that, also binational initiatives have developed cross-border transport projects. Often the transport providers and rail transport infrastructure owners cooperate directly with each other across borders to harmonize the transport offer, the routings, the tariffs and common information systems (Interview Dostert 2016; Interview Harmeling 2016; Interview Planungsgemeinschaft Region Trier 2016). Several interviewed stakeholders, among them Schreiner, consider it to be more reasonable to develop bilateral transport strategies because these can be implemented easier (Interview Schreiner 2016) than projects which comprise the whole cross-border region.

The interviewed stakeholders mentioned a high number of non-EU funded cross-border projects. Some were developed at cross-border regional level, others bilaterally. They are presented in the following. Often, however, no concrete information on funding and the project duration was available.

#### Projects on cross-border regional level: Greater Region

At the cooperation level of the Greater Region, almost no hard infrastructures or services were implemented. Instead it was focused on a better coordination of the transport development. To minimize the contradictions between the transport policies and projects in the subregions of the Greater Region, a **cross-border consultation process** was started since the 11<sup>th</sup> Summit: when spatial plans are developed by one region the neighbouring regions are informed about the contents and consulted. Every authority in the Greater Region is asked to give an opinion to coordinate it with the own domestic planning (Interview Beck 2016).

The cooperation in the different bodies of the Greater Region led to the creation of common **GIS maps** which display information on the public transport offer, transport axes and their relation to the residual EU (Interview Arts 2016; Interview Harmeling 2016). Additionally, for every new presidency the WSAGR develops a **report on the status quo of public transport** and mobility (Interview Ball 2016).

Furthermore, the IPR organised a **transport conference** in 2014 on mobility and transport in the Greater Region (Interview Schreiner 2016) including discussions and workshops in the fields of cross-border public transport, rail transport, road transport, innovative mobility concepts (Interregionaler Parlamentarier-Rat 2014b).

Besides these rather soft projects, in the beginning of 2017 a private **cross-border shuttle bus** enterprise was established which was to start its services in summer 2017. It aims at transporting cross-border commuters from the Greater Region to Luxembourg in commuter buses from door-to-door. Since spring 2017 interested commuters have been asked to sign up and provide the enterprise with their travel wishes so that the itineraries can be calculated. It is promoted that the bus ride will be cheaper than the individual ride by car. The buses will offer free Wi-Fi (KUSSBUS 2017).

# Bilateral projects between France and Luxembourg

The implementation of the projects defined in the *Schéma Stratégique de Mobilité Transfrontalière* (SMOT) is said to be developed further and updated bilaterally between France and Luxembourg (Interview Besch and T. Juttel 2016).

Every year a so-called *commission intergouvernementale* (intergovernmental commission) is held between the Luxembourgish transport ministry and the French national and regional transport ministries to decide about a common transport investment plan and to coordinate the development (Interview Hilt 2016; 2017).

The **cross-border bus lines** of the French *départements* and municipalities are coordinated with Luxembourg (Interview Bost 2016). Luxembourg offers and finances almost all bus lines which connect France with Luxembourg (e.g. bus line 300) to reduce the number of individual car commuters (Interview Besch and T. Juttel 2016; Interview Dostert 2016). The transport in the **development zone Esch-Belval** is improved by the EGTC Alzette-Belval (Interview Straehli 2016; Interview Arts 2016; Interview Camps 2016). The number of **bus connections** between France and Esch sur Alzette (LUX) are said to be **increased** and the existing bus lines from Luxembourgish and French providers are mutually **coordinated**. The transport providers of the two involved countries have met several times to coordinate the schedules to allow a smooth transport across the border and minimize the number of car commuters. Furthermore, the cross-border ticket prices are to be harmonized further. Now, the Luxembourgish public transport tariff is valid from two kilometres outside the country. The French city Villerupt, for instance, benefits from this agreement as it is connected to the Luxembourgish public

transport tariff zone so that the Luxembourgish ticket can be used in the city's urban transport network. This is said to contribute to lower individual motorized transport flows within the city (Interview Camps 2016). Many cross-border commuters with other French origins, however, use their cars to reach the Luxembourgish public transport at the French border instead of using the more expensive French public transport offer. This is to be improved (ibid.). The EGTC Alzette-Belval also promoted the development of a **bus line** between **Thionville** and the **University of Luxembourg** in Belval. The connection was provided by Luxembourg and coordinated with the French side. However, the bus connection was to be abolished soon (Interview Vidal 2016). According to interviewed stakeholders, the EGTC Alzette-Belval is of high added value for its members because it groups small municipalities without large competences in the field of transport and initiates cross-border projects (Interview Arts 2016; Interview Vidal 2016).

To minimize the individual motorized transport of the cross-border commuters between France and Luxembourg the **rail infrastructure** across borders is being expanded (Interview Beck 2016). New rail tracks are said to be added (Interview Hilt 2016; 2017). The SMOT is considered to have contributed to better **rail connections** between **Nancy, Metz, Thionville (FR) and Luxembourg** (Interview Ball 2016) because it helped to coordinate the expansion across borders. Because of high numbers of cross-border commuters the connection is considered to be very important. Furthermore, **technical studies** on the maximum capacity of rail connections to increase the number of connections per hour were conducted (Interview Hilt 2016; 2017; Interview Straehli 2016; Interview Bost 2016; Interview Besch and T. Juttel 2016; Interview Camps 2016; Interview Sohn 2016). Additionally, a **substitute train** was purchased to be available when another one is cancelled or overloaded (Interview Camps 2016). The investments in the common rolling stock are said to have been agreed on in the SMOT (Interview Dostert 2016). So far, both Luxembourg (LUX) based on **agreements** between the two national transport providers (Interview Bissen 2016).

Furthermore, Luxembourg is said to have influenced the French **TGV development** and connection from **Paris to Luxembourg** via the three intermediate stops Les Trois-Domaines (Meuse), Metz and Thionville, which was started in 2007, by partly financing the infrastructure (Interview Besch and T. Juttel 2016; Interview Vidal 2016).

Besides that, the **train station in Audun-le-Tiche** is situated in France but administrated by the Luxembourgish rail provider CFL. This is also based on a certain cooperation between the two countries (Interview Camps 2016).

With the project A31bis France expands the **motorway A3/A31** between **Nancy and Luxembourg** (Interview Ball 2016) with a third track because of the high numbers of cross-border commuters (Interview Hilt 2016; 2017; Interview Beck 2016; Interview Besch and T. Juttel 2016; Interview Ripp 2016). Coordinated studies on the expansion were conducted between Luxembourg and France (Interview Bost 2016) were conducted in the beginning. Since then, Luxembourg and France have worked on the expansion on their respective sides of the border but regularly exchange views about their progress to ensure the interoperability of the road infrastructure (Interview Hilt 2016; 2017). Beck fears that this expansion of the infrastructure could lead to the further growth of transport flows: if this was the case the congestions will persist (Interview Beck 2016). It was reported that Luxembourg was not willing to financially support the investments strongly in the beginning (Interview Ripp 2016). The country tried to access additional EU funds for the implementation of the project. However, the project is said to be implemented also without EU funds (Interview Besch and T. Juttel 2016).

Additionally, the so-called *liaison Micheville*, a road connection from France to Belval (LUX) was developed in cooperation of both countries. Luxembourg partly financed the infrastructure, that is

located solely on French territory (Interview Vidal 2016). In 2016 two road bypasses were established in the French *départements Meurthe-et-Moselle* and *Moselle* which lead into a tunnel which leads to Belval (LUX) where a large P&R infrastructure was established in 2016 (Interview Camps 2016). The infrastructure was opened in 2016 (Interview Arts 2016; Interview Straehli 2016; Interview Beck 2016). This investment is considered to have been very important for cross-border transport (Interview Camps 2016).

# Bilateral projects between Belgium and Luxembourg

According to Demortier, there have been only few and scattered initiatives to coordinate the cross-border transport between Belgium and Luxembourg except of the SMOT (Interview Demortier 2016).

The rail development between Wallonia and Luxembourg is coordinated through **bilateral conventions** between Belgium and Luxembourg. These are renewed every two years. However, according to Demortier no concrete projects have been presented to the public so far. IDELUX tried to support the further development of the since 1999 existing **framework agreement** between Wallonia and Luxembourg. It shall be agreed on concrete cross-border projects whose implementation is to be monitored regularly (ibid.).

The national **rail transport providers** of Belgium and Luxembourg are said to be in contact to coordinate the offer across borders (Interview Antoine 2016; Interview Bissen 2016). Based on a bilateral convention between Belgium and Luxembourg of 2008, a cross-border **rail connection** between **Virton (BE) and Rodange (LUX)** as well as **Arlon (BE) and Rodange (LUX)** is offered by the SNCB until 2018 (Etat Belge 2014b, art.25).

The **train station of Aubange** (BE) was reactivated by Luxembourg and connected to the Luxembourgish rail network despite being on Belgium territory (Interview Dostert 2016).

As promoted by the EuroCapRail project, the **rail connection** between **Bruxelles and Luxembourg** is to be modernized. Wallonia co-finances the project with approximately 47 million Euros. The travel time between the two cities is to be reduced by 23 minutes for international trains. The works are to be completed in 2021, but the progress is currently said to be suffering a delay (SERVICE PUBLIC DE WALLONIE n.y.).

There was a coordination of the **modernization of the rail axis between Namur (BE) and Luxembourg** (LUX) across borders. However, it was stopped because of a wrong estimation of costs and missing Belgian funds. The Luxembourgish part of the track was completed but on the Belgian side the modernization was strongly delayed (Interview Castagne 2016).

A cross-border bus line is offered between St. Vith (BE) and Luxembourg (LUX). The German Speaking Community of Belgium is said to have strongly promoted the development of this bus line (Interview Hilligsmann 2016). There is also a bus line from **Bastogne** (BE) to **Ettelbréck** (LUX) which is organized by Luxembourg (Interview Dostert 2016). Besides that, several Belgian public transport lines (TEC) are offered across borders between Wallonia and Luxembourg (see **chapter 6.3.1**). Also a public transport connection was to be established between **Arlon (BE)** and **Esch-sur-Alzette (LUX)** for students of the University of the Greater Region (Interview Demortier 2016). Additionally, some private enterprises developed public transport lines across borders for their employees (ibid.).

According to Ries and Kies a large **P&R infrastructure** was being established between Luxembourg and Belgium in **Arlon** (Interview Ries 2016; Interview Kies 2016). However, the negotiation progress was said to have been very slow (Interview Kies 2016). The implementation was said to have been pushed by a transport conference which had been organized by the IPR (Interview Ries 2016). Another P&R-infrastructure is expected to be developed in the proximity of **Viville** on a brownfield. This coordinated in a cooperation of Luxembourg with the SNCB and the city of Arlon. Luxembourg is said

to partially fund this project (Wirtschafts - und Sozialausschuss der Großregion 2014, 95; Interview Dostert 2016).

## Bilateral projects between Belgium and France

Between Wallonia and the former region Lorraine only one project was reported by the interviewed stakeholders. It has, however, been discontinued: a new **rail freight axis between Athus (BE) and France** was planned to be established. So far, the goods are shifted to the road and distributed to the Greater Region with trucks. The rail freight axis was to reduce the freight transport via road and  $CO_2$  emissions. Wallonia and the EU funded 90% of the development of the line. However, as the national Belgian company INFRABEL had other priorities and not enough funds to pay the last 10% of the costs, the establishment of that rail track was said to have been stopped (Interview Demortier 2016).

## Bilateral projects between Germany and Luxembourg

Three cross-border infrastructure projects involve Luxembourg, Rhineland-Palatinate as well as the Saarland at the same time. First, in the vicinity of the German-Luxembourgish border several **P&R** and **car-pooling infrastructures** were developed (Interview Kies 2016) and expanded because of the cross-border flows to Luxembourg. Carpooling and the usage of public transport were to be promoted with these investments (Interview Glöckner 2016). Second, **rail tracks** are planned to be expanded between **Trier, Perl (DE) and Opéch (LUX)** (Interview Harmeling 2016). Third, a cross-border rail ticket between the Saarland, Rhineland-Palatinate and Luxembourg was developed, the so-called **SaarLorLux ticket**. It is dedicated for touristic mobility because it is only valid on the weekend and not frequently used by cross-border commuters (Interview Dostert 2016).

Several public transport connections exist between Luxembourg and the Saarland. The cross-border bus line *Saarbrücken-Luxembourg-Express* connecting Saarbrücken and the city of Luxembourg is supported by Luxembourg and the Saarland (Interview Ludwig 2016; Interview Kies 2016; Interview Ries 2016; Interview Sohn 2016). Several years ago, a **study** was conducted on the improvement of the cross-border transport relations between the two countries. The study proposed to develop a direct bus line between Saarbrücken and Luxembourg because a rail connection was not considered to be feasible (Interview Ludwig 2016) because of the territory's topography. 15 buses are offered per day on this connection (ibid.). Unfortunately, the bus is said to be often delayed in the peak hours because of road congestions (Interview Ripp 2016). The so-called *Saar-Lux* buses offer cross-border commuters connections from Saarlouis, Dillingen and Merzig (DE) to Luxembourg (LUX). These buses first access Kirchberg before they go to the main train station (Interview Ludwig 2016).

The disperse settlement structure of the Saarland is said to complicate the access of every commuter by bus. Therefore it was invested in **P&R infrastructures** as stated above (Interview Kies 2016). A **carpooling** parking was expanded in **Nennig/Perl** because of the strong commuter flows to Luxembourg. Thereby the number of individual car drivers was to be reduced (Interview Glöckner 2016).

The **motorway A8** to Luxembourg was being expanded in the vicinity of Merzig to four tracks because it was strongly used by cross-border commuters (Interview Chlench 2016; Interview Glöckner 2016).

Also between **Rhineland-Palatinate and Luxembourg** cross-border infrastructures and service projects have been implemented or were said to be currently being implemented: The **cross-border bus** line 118, offered by Luxembourg, connects **Trier** (DE) with **Luxembourg** (LUX). The bus connection aims at reducing the number of individual car commuters. Furthermore, there is a bus connection between **Bitburg** (DE) and **Ettelbréck** (LUX) (Interview Dostert 2016).

It was invested jointly in the **rail connections** between Rhineland-Palatinate and Luxembourg (*Rheinland-Pfalz-Takt*), among others, in the connections between **Luxembourg** (LUX) and **Trier** (DE)

(Interview Kies 2016; Interview Sohn 2016). A contract between the Luxembourgish rail provider CFL and the *SPNV Nord* was said to have been concluded for the **common marketing** of the cross-border connections (Interview Geyer 2016).

The **rail track** from **Igel** (DE) to **Luxembourg** was expanded with a second track and financed by German and Luxembourgish funds to allow more parallel rail connections from Luxembourg to Trier and Koblenz (DE). Thereby the connection to Luxembourg was said to have been enhanced faster. This connection is said to be very important as it is the sole direct connection via rail (Interview Bissen 2016; Interview Geyer 2016).

The **rail bridge in Konz** (DE) which connects the rail tracks from Luxembourg to Trier (DE) across the river Mosel is planned to be expanded to four tracks (Interview Harmeling 2016). Furthermore, a special infrastructure section on the **border bridge** between Luxembourg and Germany was said to have been developed in **Wasserbillig** which is accessible by Luxembourgish and German trains as they are based on different current systems (Interview Bissen 2016).

Germany is said to currently **reactivate** the so called **Western-track** (*Weststrecke*), close to Trier, for passenger trains which will connect **Wittlich**, **Trier Ehrang**, **Konz** (DE) and **Wasserbillig** (LUX). It shall be implemented until 2018/19 and used for rail connections to Luxembourg in the future. Thereby congested buses which carried cross-border commuters from Germany to Luxembourg are to be relieved (Interview Bissen 2016; Interview Schelkmann 2016; Interview Harmeling 2016; Interview Planungsgemeinschaft Region Trier 2016; Interview Schreiner 2016).

The Northern bypass (*Nordumfahrung*) and the Western bypass (*Westumfahrung*) of Trier (DE) of the **motorway A 64** are to be established which is said to be relevant for the commuter transport to Luxembourg. The Western bypass was adopted by the BVWP in 2016 as a priority although Rhineland-Palatinate has not proposed and supported this investment (Interview Planungsgemeinschaft Region Trier 2016).

The **expansion of a Mosel lock** was financially assisted by Luxembourg. Because of personal shortages in the German national administration, the expansion of the lock was stopped. Therefore Luxembourg employed additional staff at their cost to support the further development (Interview Schelkmann 2016). The fast expansion was said to have been pushed additionally by the IPR (Interview Ries 2016).

# Bilateral projects between Germany and France

The Saarland and Lorraine conduct **regular bilateral exchanges** because of common rail and bus lines between Saarbrücken (DE) and Metz (FR) to coordinate the schedules and ensure a good integration into the domestic timetables of other public transport connections. Furthermore, the cross-border tariff discounts (Saar-Lorraine-tariff) are said to be negotiated. The meetings are said to include participants from the two national railway providers as well as from the transport ministries of both regions (Interview Ludwig 2016).

The Eurodistrict SaarMoselle conducted a **study on the status quo** of the cross-border transport on its territory. Thereby development needs became evident and further projects could be developed (Interview Kiffer 2016).

The *Saarbahn* between **Saarbrücken (DE) and Sarreguemines** offers a frequent connection and is in demand. It has existed since 1997 and was the first cross-border rail connection of the Saarland (Interview Ludwig 2016; Interview Ball 2016; Interview Bost 2016; Interview Chlench 2016; Interview Ripp 2016; Interview Schreiner 2016; Interview Ries 2016; Interview Ripp 2016; Interview Kiffer 2016). The Saarbahn connects places in the Eurodistrict SaarMoselle (Interview Straehli 2016; Interview Bost 2016; Interview Bost 2016; Interview Straehli 2016; Interview Bost 2016; Interview B

the French and German national rail tracks (Interview Kiffer 2016). Still, the Saarbahn shall be prolonged to Forbach (FR) (Interview Chlench 2016).

The cross-border bus lines are managed under the responsibility of the Kreise and the Regional verband Saarbrücken (Interview Ludwig 2016). They are coordinated with the French départements and municipalities (Interview Bost 2016). The Saarland and France (with the CPER, the département Moselle and three intermunicipal associations) financially support two MoselleSaar (MS) bus lines between Saarbrücken (DE) and St. Avold (FR) as well as between Saarlouis (DE) and Creutzwald (FR). The MS lines were originally developed in 2003 by an INTERREG project (Interview Ludwig 2016; Interview Beck 2016; Interview Kiffer 2016). After the end of funding, the future of the bus line was at risk (Interview Kiffer 2016). In 2013 a new concept for the bus between St. Avold (FR) and Saarbrücken (DE) including seven intermediate stations was inaugurated: the bus connection was accelerated and offered more regularly with the aim to sustain the offer and make it more attractive. Thereby more cross-border transport flows were to be shifted to public transport. The second bus line is financially supported by the Saarland, the *département Moselle* and by three French municipal associations. The Eurodistrict SaarMoselle is responsible for the marketing of the bus connection (Eurodistrict SaarMoselle 2013; Interview Kiffer 2016). A special permission of the French state was said to be needed because the French associations of municipalities were usually not competent to provide cross-border bus connections. According to Kiffer, the numbers of users have grown since the new concept was implemented (Interview Kiffer 2016). The cross-border bus line 30 from Saarbrücken (DE) to Forbach (FR) has existed since 30 years and is run by a the city of Saarbrücken (DE) together with the bus provider of Forbach (Interview Ludwig 2016; Interview Kiffer 2016). This bus line was funded by INTERREG in the past (Interview Ripp 2016). It is investigated developing a tram-train connection between Saarbrücken and Forbach and the residual parts of the Eurodistrict SaarMoselle in two loops (Interview Kiffer 2016; Interview Ripp 2016) and apply for ETC funds. A pre-study was conducted on the feasibility of the tram-train that does not use the existing tracks of the DB and the SNCF to avoid the challenges experienced by the Saarbahn. Afterwards an **in-depth study** to predefine the establishment costs was conducted (Interview Kiffer 2016). The ETC funds turned out not to be high enough to finance such an infrastructure project (Interview Ripp 2016), however, some studies were financed by INTERREG B and the French DREAL within the framework of the project SINTROPHER (Interview Kiffer 2016). Further studies are planned to determine the operating costs and develop a concept for the operating structure of the infrastructure. It is searched for a co-financing of these studies and investigated to apply for EU CEF-funds for the establishment of the tram-train (ibid.). Several municipalities in the Eurodistrict SaarMoselle are separated by the national border. Still German buses are said to connect both parts of the municipalities although it is legally disputed (ibid.). Besides that, there are buses between Saarbrücken (DE) and Metz (FR) (Interview Ludwig 2016).

There are frequent **rail connections** between **Saarbrücken** (DE) and **Metz** (FR) with a change in Forbach (FR). Currently a **study** was said to be conducted of the Saarland and the region *Grand Est* on the design of the future cross-border transport connections between the two regions. In this context also the rail connections between Metz and Saarbrücken – and the potential reintroduction of more direct trains were to be discussed (ibid.).

The *SPNV Nord* from Rhineland-Palatinate is involved in indirect **cross-border rail connections** from **Trier** (DE) to **Thionville** and **Metz** (FR) because a short part of the rail track leads through the Saarland before entering France. Thus, the coordination of this connection is said to be more complicated because three regional entities need to be involved and the German and French aims are said to be diverging (Interview Geyer 2016).

The two countries are connected by a high speed rail connection (TGV Est) between Paris and Mannheim with stops in Metz, Saarbrücken and Kaiserslautern (Interview Straehli 2016). This 'POS Nord'- long distance train connection is said to be important and thus intensively supported by the regions Saarland and Rhineland-Palatinate, as well as the subregional levels although being in the formal competence of the national German level (Interview Harmeling 2016; Interview Geyer 2016; Interview Clev and H. J. Fette 2016; Interview Sohn 2016). It was lobbied strongly that this Northern branch of the POS connection was expanded and accelerated (Interview Clev and H. J. Fette 2016; Interview Harmeling 2016). Some sections have already been enhanced. Others cannot be accelerated because of the Palatinate Forest. In some sections the planning has not progressed much so that it could not be integrated into the new German national BVWP. The track on the French side between Saarbrücken (DE) and Baudrecourt (FR) has not been expanded so far (Interview Clev and H. J. Fette 2016; Interview Harmeling 2016). The connection is based on a German-French governmental agreement to improve the transport offer between the two countries. However, the French rail operator SNCF is said not to support an enhancement because cross-border transport is not attributed with a high relevance (Interview Harmeling 2016). The project was defined as a priority on the list of the Greater Region. Schreiner, however, considers this project not to be of relevance for the small-scale cross-border transport (Interview Schreiner 2016). The track belongs to the Atlantic Core Network Corridor. Thus, it should be possible to access EU co-financing. This potential was said to have been used as argument to convince the national level and the DB to invest in the track (Interview Ludwig 2016). However, there is a risk that despite an expansion of the track, the number of trains will be reduced further as the transport providers cannot be obliged to offer more trains (Interview Schreiner 2016). In the end of 2016 solely four pairs of trains used the track per day (ibid.). As mentioned before, an INTERREG project conducted a study on the expansion of this track.

The road **B269** from **Saarlouis** via **Überherrn** (DE) to **Creutzwald** (FR) was built between the Saarland and Lorraine. The last section was completed in 2012. The construction was coordinated across borders to ensure that the roads were completed on both sides of the border in a similar point in time (Interview Glöckner 2016; Interview Chlench 2016).

The Saarland was said to plan a cross-border road connection together with France: the road **L273 to Forbach** shall be established. The existing roads on both sides of the border are to be connected. However, the financing is challenged because of missing funds. Therefore it was tried to access INTERREG funds (Interview Glöckner 2016).

#### Bilateral projects between Germany and Belgium

The national rail transport providers of Germany and Belgium, as well as Belgium and Luxembourg are said to be in contact to **coordinate the rail connections** offer across the border (Interview Antoine 2016).

Belgium shall be connected better with the Rhine-Main-Area. Therefore the road connection between the motorway A1 and the motorway A61 shall be improved by expanding the **national road B50** and establishing a **bridge** across the Mosel river (Interview Harmeling 2016). This project aims at improving the connection between Belgium and Germany but only concerns constructions on German territory.

#### Luxembourgish projects with relevance for cross-border transport

Besides the bilateral cross-border transport projects Luxembourg implemented some projects on its own, which were said to have a high relevance for cross-border commuters from the neighbouring countries: a **rail station** at *Pont Rouge* in the vicinity of Kirchberg was being established to allow cross-border commuters to directly take a train to that station and use a bus or tram to reach their office. This is expected to make the public transport more attractive because of an enhanced transport connection

(Interview Beck 2016). Furthermore, Luxembourg is said to develop **P&R platforms** to facilitate the transfer from the car to public transport means. As a further incentive a **parking management system** is planned to be introduced which shall gradually increase the parking costs coming closer to the capital so that the commuters are motivated to change to public transport very early – at the best already at the Luxembourgish border. Additionally, a **telematic system** was developed which displayed the **transport services** in real time. This shall facilitate intermodality. Luxembourg is said to plan the development of more **direct bicycle paths** to connect the cities also across borders for cross-border commuters (Interview Dostert 2016).

#### Contribution of the non-EU funded projects and initiatives to cross-border transport

In the analysis it was differentiated between cross-border projects which concerned the whole crossborder region, and cross-border local, bilateral projects which concern parts of the cross-border region. The majority of the initiatives was conducted on cross-border local, bilateral level.

The low number of cross-border regional projects focused on a better coordination of the involved countries' transport developments but did not fund the establishment of concrete public transport services or infrastructures.

Most bilateral projects were established between Luxembourg and its neighbouring countries. Only few cross-border transport initiatives exist between the residual countries, with the exception of Germany and France. This can be explained with the **strong commuter flows** to Luxembourg and between Germany and France and the **high pressure** to improve cross-border transport in these relations. Also, Luxembourg alone developed transport projects with relevance for the cross-border commuters.

34 different coordination initiatives across borders were reported. Most described initiatives concerned public transport across borders (33 projects). Besides that, seven transport studies were conducted and 30 transport infrastructure projects were implemented. Most transport infrastructure projects concerned public transport connections, i.e. the establishment of P&R infrastructures and rail tracks. Only some expanded cross-border roads.

Despite a long cooperation tradition in the Greater Region, some projects were challenged because of missing support on one side of the border or missing funds. Others are still being implemented and have not been finalised. Still a high motivation of the countries can be observed – particularly in relations with strong commuter flows – to improve the transport across borders and invest in services and infrastructures. Also, **cross-border institutions** have been involved in the projects and have often coordinated the cooperation of domestic stakeholders across borders. Different **administrative levels** and **transport providers** were reported to be involved in the cross-border initiatives. One of the most frequently named challenges was the high investment costs in times of empty coffers. Several projects have been partially financed by EU funds in the past or aimed at being supported by them in the future.

Also, further EU policy objectives besides **cross-border coordination**, **infrastructures** and **services** have been named by the interviewed stakeholders in the reasoning for the implementation of these crossborder initiatives: most often the promotion of **alternative transport modes** to the individual cars was mentioned, followed by the objectives to **reduce** existing **congestions**, either on the road or in public transport. Furthermore, **public transport** shall become more attractive by increasing the **userfriendliness**. Additionally, **multimodality** was to be promoted and the **interoperability** was to be enhanced. P&R infrastructures were to be established to ensure the **accessibility of remote areas**. One project also supported cross-border transport with **soft mobility**, another one supported the application of **intelligent transport systems**. Furthermore, one mentioned the **reduction of CO**<sub>2</sub> **emissions** as additional objective. The sole project relating to freight transport was discontinued, the majority of the project focuses on **passenger mobility**. As several EU policy objectives were mentioned this might be

an evidence of the EU policies' influence. Still, these objectives were also mentioned in the domestic policy documents and the projects were developed in a cooperation between the member states mainly because of pressing necessities. They thus reflect the **bilateral needs** experienced in the cross-border local transport within the Greater Region.

The next section presents the challenges which were perceived by the interviewed stakeholders in the coordination of cross-border transport projects across borders.

# Challenges in the development and implementation of cross-border transport projects and initiatives

The interviewed stakeholders perceived several challenges when developing and implementing crossborder transport projects and initiatives. The implementation of cross-border projects is said to be very time-consuming because of the high complexity of challenges which hamper cross-border transport. Therefore a high number of stakeholders need to be involved (Interview Sohn 2016). The challenges are grouped in the following ten categories and presented beneath:

- Finances
- Technical barriers
- Size of the cooperation space
- Transport planning cultures
- Objectives
- Language
- Coordination structures
- Political will
- Information
- ♦ Time

## **Finances**

Transport projects are usually very expensive. Because of a **lack of financial means** the implementation of commonly decided projects was said to be challenged (Interview Demilie 2016; Interview Hilligsmann 2016; Interview Vidal 2016; Interview Schelkmann 2016; Interview Arts 2016). Thus, a prioritization is said to be very important (Interview Beck 2016). A prioritization, however, means that only a few cross-border projects can be implemented (Interview Straehli 2016; Interview Castagne 2016; Interview Beck 2016; Interview Clev and H. J. Fette 2016; Interview Ries 2016) and the further removal of cross-border challenges proceeded slowly (Interview Demilie 2016). According to Besch and Juttel, it would be often the easiest to directly cooperate with border municipalities that are directly concerned by the border. However, even if they were competent to do so, the local level lacked the financial means to implement the projects (Interview Besch and T. Juttel 2016). Also the implementation of transport projects in the *Eurodistrict* SaarMoselle, which groups several French and a German municipality, is said to have been hampered because of missing funds (Interview Kiffer 2016).

According to Clev and Fette, the **investment preferences** varied among the member states. Often scarce funds were preferentially spent in national projects instead of cross-border projects (Interview Clev and H. J. Fette 2016). The regional ministries are said to be reluctant to invest in cross-border transport projects as they are expensive and their effect would not be immediately measurable (Interview Schreiner 2016). Also Straehli sees a challenge in the member states' distinct evaluation of relevance of cross-border transport projects which was connected with a different allocation of funds (Interview Straehli 2016). This could hamper a harmonized implementation of projects on both sides of a border. All countries involved needed to be economically willing and able to enhance cross-border transport (Interview Arts 2016): the establishment of a cross-border infrastructure is usually ensured by distinct domestic investments in the respective territories (Interview Besch and T. Juttel 2016). Luxembourg, however, had a higher availability of financial means than the neighbouring regions. Therefore the

country has provided the other member states projects with missing funds in the past (Interview Harmeling 2016). Currently Luxembourg is said to try to avoid further financial investments in transport infrastructures outside its territory. Still it finances several public transport lines which connect its neighbouring regions to Luxembourg (Interview Besch and T. Juttel 2016).

Bost attributes a high importance to the **capacity** of local or regional actors to **convince** the higher levels and the EU of the importance of a project so that they get financial support (Interview Bost 2016).

As mentioned in **chapter 6.3.4** the **EU financial support** for cross-border transport is considered to be important, but too low and not focused on small scale connections (Interview Beck 2016). The CEF-fund was reported to have been reduced so that it is considered to have become more difficult to get funds (Interview Bissen 2016). It is called for an increase of EU funds to enlarge the incentives to implement cross-border transport projects (Interview Hilligsmann 2016). The scarcity of funds is seen as a reason for competition instead of cooperation with the other regions. To prevent this, the funds needed to be used in a very efficient way (Interview Arts 2016). Besides that, the ETC funds could not support large transport projects because being too expensive (Interview Vidal 2016). Schreiner criticizes that EU funds for investments in regional cross-border transport – which are said to be of high relevance for internal transport within cross-border regions -were missing (Interview Schreiner 2016).

Challenges in the coordination of transport services across borders were reported because of financial reasons: the accounting of **cross-border tickets** was said to be difficult – particularly when a high number of different providers was involved. Therefore a cross-border ticket for the whole Greater Region has been a challenge (Interview Kies 2016). Luxembourg strongly subsidizes public transport whereas the other regions cannot afford to do so. Therefore, the ticket prices varied strongly (Interview Castagne 2016).

The introduction of **tolls** on motorways, as planned in Germany, is said to potentially hamper a smooth cross-border transport (Interview Arts 2016).

Despite these problems it has turned out to be much easier to develop cross-border bus lines than to establish cross-border infrastructures in terms of investments and establishment time (Interview Vidal 2016). Therefore, many cross-border bus connections have been offered in the Greater Region.

# Technical barriers

Because of different **electricity** and **safety systems** for trains, cross-border rail transport within the Greater Region was said to be hampered (Interview Hilligsmann 2016; Interview Schelkmann 2016; Interview Sohn 2016). For instance, the cross-border rail transport between France and Germany was hampered because of these technical differences. Cross-border trains needed to be able to run on both systems and needed **expensive special equipment**. Only few of these trains are said to exist for the regional cross-border transport. These scarce trains are often used on a short cross-border section. Therefore the number of train changes is increased and the connection loses in attractiveness (Interview Ludwig 2016; Interview Schelkmann 2016; Interview Geyer 2016; Interview Clev and H. J. Fette 2016; Interview Schreiner 2016). Luxembourg was said to have been very active in applying the Europe-wide ETCS system. In Germany this is said to be progressing much slower (Interview Geyer 2016). It is hoped that a harmonization of technical systems will be reached in the near future thanks to an EU interoperability directive (Interview Harmeling 2016). Geyer, however, does not expect that the electricity systems will be harmonized in the next 50 years (Interview Geyer 2016).

The development of a cross-border **road** might be challenged by contrasting domestic **traffic prognoses** because of which different road dimensions might be intended (Interview Glöckner 2016). The coordination of winter road clearance across borders was said to be hampered because of different programmes and **software** of the member states (Interview Beck 2016). The development of a joint

**journey planner information system** for public transport was said to have been challenged because of different domestic technical approaches (Interview Dostert 2016). Therefore the different rail information systems were not coordinated sufficiently across borders (Interview Geyer 2016). Furthermore, as has been stated above, it is said to be difficult to develop cross-border tickets because of different **domestic ticketing systems** (Interview Kiffer 2016; Interview Sohn 2016).

#### Size of the cooperation space

As already described in **chapters 6.3.1** and **6.3.3** the cooperation territory of the Greater Region is very large which made it difficult to develop common cross-border policies. According to the interviewed stakeholders this also led to challenges in the concrete development of cross-border initiatives.

According to Arts, the Greater Region is a good level to **coordinate the coherence** of the transport development in the cross-border region. The most important transport projects are to be decided on the comprehensive level as it was done with the definition of the priority projects in the Greater Region. Besides that, however, she considers it to be important to cooperate bilaterally also between two states - for instance between France and Luxembourg - at a lower level and smaller scale with concrete transport projects (Interview Arts 2016). This is acknowledged by Clev and Fette who fear that small-scale projects based on bilateral challenges might be **outvoted by non-involved parties** at the cross-border regional level of the Greater Region. It is considered to be difficult to get the support of all stakeholders of the Greater Region for bilateral cross-border initiatives. International high-speed transport services have existed since a long time and are not challenged strongly. Instead regional, subregional and local public transport connections across borders often face problems which need to be solved by the parties on both sides of the border in a **bilateral exchange** and not at cross-border regional level (Interview Clev and H. J. Fette 2016).

Because of the large size of the Greater Region Dostert thinks that the transport coordination should be **focused** on the **core area around Luxembourg**: most cross-border commuter flows would concern this area and the territories shared similar challenges. The coordination of transport connections between cities of the Greater Region that are far apart from each other is not considered to be reasonable because these connections might not be used. Besides that, the territories at the external border would be often oriented to other centres and cooperation areas like Bruxelles or the Rhine-Main area (Interview Dostert 2016). The coordination of cross-border bus transport is said to be difficult because of the **complex structures** of transport providers of the different regions (Interview Hilt 2016; 2017).

Also, **smaller cooperation spaces** like the *Eurodistrict* SaarMoselle were said to face challenges in the implementation of common projects because of the **missing competences** of its members. Therefore, they relied on higher administrational levels which decide about the implementation. Also the **communication** between the different responsible levels is considered to be difficult (Interview Kiffer 2016). City-networks, like the Quattropole do not have the competences to implement common transport projects. Therefore, they can only represent their members' interests and lobby at higher level to convince the competent stakeholders to implement their aims. Thus, the own development of internal transport connections between several cities of a city-network is said to be very difficult (Interview Sohn 2016).

#### Transport planning cultures

As has been seen in **chapter 6.3.2** and **6.3.3** the transport systems and objectives of the policy documents vary between the countries involved in the Greater Region. According to Castagne, these different regional transport approaches hampered cooperation across borders (Interview Castagne 2016). Also Arts considers the diverging focuses of spatial planning as a challenge and underlines the importance of **exchanging practices** with the neighbouring countries to start to **understand and learn** from the

cooperation partners (Interview Arts 2016). Furthermore, the different national philosophies are said to have an impact on the **priorities and processes** in transport development and cross-border cooperation (Interview Ludwig 2016). In the past it is said to have been difficult for the regional levels of Saarland to cooperate with France because of the dominance of nationally centred aims: the transport development of Lorraine was strongly focused on national projects and the improvement of transport connections to Paris. Cross-border projects are said to have had a much lower **priority** which has hampered the cooperation with the Saarland. The Saarland, in contrast, is said to be strongly interested in cross-border transport because of the region's size and vicinity to the border. However, changed responsibilities because of the creation of the *Grand Est* might have changed this orientation to a certain degree (ibid.). This is also hoped for by Geyer because the cross-border transport between the Alsace and Germany is said to have been supported actively by the French side so far (Interview Geyer 2016).

The different planning cultures are said to be strongly bound to the national **planning education**. The **planning processes** vary: the French and Walloon planners are considered to have a very project related view, whereas the German planners tend to conduct several studies before designing projects (Interview Chlench 2016). Clev and Fette consider it to be difficult to coordinate the common expansion of a cross-border infrastructure because of the different **implementation speeds** which depends on different duration of **planning and approval procedures**. In the development of the *POS-Nord* track France was much faster than Germany. In this context the central hierarchy is considered to have been of added value (Interview Clev and H. J. Fette 2016). Also, Beck experienced different **procedural approaches** for instance in the case of snowfall, which hampered cross-border coordination. These approaches needed to be studied in order to be able to coordinate the practice better (Interview Beck 2016).

Further differences existed in the **relation between politicians and planners** which influenced the cooperation process: the French transport administrations had to bring their technical opinion in agreement with the politicians before they could officially confirm a cooperation initiative across borders. Ludwig considers the communication between the planners and politicians in Germany easier because the administrations were linked closer to the politicians (Interview Ludwig 2016).

Schreiner experienced different national **public transport philosophies** which hampered the cooperation across borders. The French public transport system is said to be based on transport lines, the German system was coordinated in a grid. It is said to be very difficult to change these philosophies (Interview Schreiner 2016).

Besides these challenges, the data collection methods between the countries varied. Schelkmann, Schreiner and Hilligsmann see the **missing comparable transport commuter data** as a potential reason for the missing coordination and development of cross-border transport services across borders (Interview Schelkmann 2016; Interview Schreiner 2016; Interview Hilligsmann 2016).

#### **Objectives**

As it was already mentioned in relation to the size of the Greater Region, the objectives of the countries and stakeholders involved were said to often differ from each other and even contradict each other. Therefore it is said to be important to agree on commonly **shared aims** before the implementation of common projects can be started (Interview Beck 2016; Interview Dostert 2016).

The national levels of the neighbouring countries of Luxembourg were reported to often have **different priorities** for investments which did not concern cross-border transport because the national capitals were located territorially far away from the cross-border region (Interview Ries 2016; Interview Bissen 2016). Berlin, for instance, might be more interested in the expansion of rail connections to Poland (Interview Bissen 2016). Luxembourg and Wallonia are said to both agree on the importance of the expansion of rail transport across borders. However, the national railway company SNCB, which is

responsible for rail transport, is said to have focused on rail investments in other parts of Belgium and not in Wallonia – particularly not at the southern borders. However, the focus is said to be at least partially dependent on the current transport minister's **interests** and could change in the future (Interview Kies 2016). Another example for different interests is the investment focus of France on the expansion of the TGV connections. This is said to risk the maintenance and update of safety systems on other rail tracks because of scarce funds (Interview Bissen 2016). Trinemeier thinks that the multitude of different aims on the different administrative levels complicated the implementation of cross-border projects at subregional level - particularly when the support of higher levels was needed (Interview Trinemeier 2016). Also in city networks the definition of common aims in the development of internal transport connections between more than two cities is considered to be difficult because of different local **focuses, needs** and **interests**. Defining common aims concerning the external transport connections is said to have been easier (Interview Sohn 2016).

**Small scale** cross-border projects are said to be less supported by regional and national administrations whereas motorways and high speed rail connections across the borders are said to get a higher attention and support (Interview Schreiner 2016).

Also at regional level the objectives were said to sometimes **contradict** each other: The rail connections between Trier (DE) and Metz (FR) is said to be hampered because of different aims on both sides of the border. The French side would not be interested in a direct rail connection between the two cities or a faster connection to Thionville which is envisaged by Germany. Besides that, as the track involves the Saarland and Rhineland-Palatinate the cooperation is said to be more complicated because **more stakeholders** need to be coordinated (Interview Geyer 2016)

## <u>Language</u>

Three different official administrative languages are spoken in the Greater Region: French, German and Luxembourgish. Therefore, several stakeholders consider the coordination of transport planning and projects across borders to be more **complex**. The Luxembourgish stakeholders usually speak all three languages but this is not the case for all stakeholders with French and German mother tongue (Interview Vidal 2016; Interview Chlench 2016; Interview Camps 2016).

Also the cooperation of other transport stakeholders across borders is said to be hampered (Interview Ludwig 2016). Often **interpreters** are needed to coordinate cross-border infrastructure developments (Interview Glöckner 2016). A negative example is the missing participation of the German administration in a public participation process concerning a French road expansion to the German border. The German side was said not to have been informed about the project because of the language barrier. To be able to be efficiently informed about projects of the neighbouring countries **bilingual staff** would be needed in the administrations which knew the official languages of the Greater Region (Interview Clev and H. J. Fette 2016). Also in the winter road clearance across borders the language barrier was experienced (Interview Beck 2016).

Geyer, however, thinks that the existing language barrier between Germany and France should not be accepted as a barrier for cooperation in the field of cross-border transport as it can be overcome (Interview Geyer 2016).

#### Coordination structures

Despite the coordination in several established cross-border institutions the cooperation is said to strongly rely on the different domestic structures. The coordination structures in the Greater Region are often considered to be in great need of improvement. A **permanent coordination platform** is said to be missing which allows the regular exchange and communication between the transport stakeholders

from the five regions (Interview Sohn 2016). Beck calls for the **simplification** of the administrational processes in cross-border regions to facilitate the cooperation across borders (Interview Beck 2016).

Demortier criticizes the lack of a common coordinated **schedule** for implementation (Interview Demortier 2016). Also Bost considers it to be difficult to coordinate the investments in a common time scale (Interview Bost 2016). Glöckner calls for a better coordination of the traffic prognoses of the subregions of the Greater Region on which the transport infrastructure expansion is based. So far, it would not have been coordinated (Interview Glöckner 2016).

The coordination of the transport development across borders is mainly based on voluntary cooperation. There is little **legal pressure** - besides the participation of the neighbouring countries in the planning of projects with environmental impacts - to cooperate across borders. When the countries are not interested in cooperation the investments will not be coordinated. Thus, a coordination is dependent on **personal initiatives** and **domestic needs**. This might challenge the implementation of projects (Interview Demortier 2016)

Missing and diverging **competences** and **accessibilities** of cooperating **administrative levels** are said to further hamper the implementation of common objectives (Interview Demortier 2016; Interview Arts 2016; Interview Clev and H. J. Fette 2016; Interview Trinemeier 2016; Interview Ries 2016). The complexity of competences is said to make it difficult to contact the responsible stakeholders (Interview Schelkmann 2016; Interview Ludwig 2016; Interview Trinemeier 2016; Interview Vidal 2016). According to Glöckner, coordination meetings across borders took place very rarely so that the relevant stakeholders were often not known (Interview Glöckner 2016). This is said to be often complicated further by frequently changing staff and politicians (Interview Ludwig 2016). The territorial reform in France recently led to changed responsibilities and contact persons in the administration (Interview Dostert 2016; Interview Sohn 2016; Interview Harmeling 2016). This is said to potentially hamper the willingness to develop a cross-border transport project. Therefore Ludwig considers comprehensive projects which involve partners from the whole Greater Region to be of added value for the mutual **getting to know** and for **future bilateral projects** (Interview Ludwig 2016).

There is a high number of examples in which a different distribution of competences led to cooperation challenges in the implementation of cross-border infrastructures. The French regional and subregional levels are said to be very dependent at the national level. The latter has to agree on the development of infrastructures. Compared to France it is considered to be easy to get in contact with the national level administration of Luxembourg. They are said to be very interested and competent in the development of cross-border transport (Interview Beck 2016). Also the acquisition of **public transport** vehicles in France is said to be more difficult than in Germany because it is decided by the French national level, whereas in Germany the subregional level was competent (Interview Trinemeier 2016). The challenges because of different administrative competent bodies were acknowledged by further Luxembourgish and German stakeholders (Interview Besch and T. Juttel 2016; Interview Glöckner 2016). Besides that, missing competences at French local level for the development of P&R infrastructures were reported to have led to the further lack of infrastructures. Recently, some local mayors were said to have started to support the investments and lobby on higher levels to implement new infrastructures (Interview Besch and T. Juttel 2016). The coordination of large scale investments in transport infrastructures is said to be even more complex as usually the national levels were responsible. Therefore small scale investments were easier to coordinate (Interview Kies 2016).

Also in terms of **public transport services** the competent authorities of the member states are situated on different administrative levels. This is said to have led to problems. According to the *Planungsgemeinschaft Region Trier* a **coordinating body** of the Greater Region for **public crossborder transport** is said to be missing. This body could assist the member states to develop cross-

border tariffs etc. (Interview Planungsgemeinschaft Region Trier 2016). The centralization of some public transport competences in France and Belgium is said to make the negotiations across border to be more complex. The national administration of France is located far away from the Greater Region and hence, is said not to necessarily know the needs of the French citizens at the border to Luxembourg (Interview Kies 2016). Also, the Saarland is said to have experienced problems when trying to find a contact person in charge of the French bus transport across borders. It is considered not to be regulated consistently. This is said to have hampered the coordination across borders since several years (Interview Ludwig 2016). Also stakeholders from Rhineland-Palatinate consider public transport coordination with France to be difficult because of a missing communication (Interview Geyer 2016). Furthermore, Wallonia is not competent in rail transport, but the Belgian national level which is not represented in the Greater Region (Interview Vidal 2016). The national rail company SNCB was said to often have had different objectives than Wallonia. Therefore, the tariff negotiations have been longlasting. Because of these challenges Luxembourg is said to have the lowest public transport offer across the Belgian borders. When local and regional partners are responsible for regional public transport - as in the case of the German Länder - the coordination across borders is said to be much easier (Interview Kies 2016). This has been acknowledged by the SPNV Nord: the coordination with Luxembourg is considered to be very efficient despite the different administrative levels (Interview Geyer 2016). Rhineland-Palatinate and the Saarland, however, are not competent in the field of long distance rail transport services. In this case Luxembourg has to negotiate with the German national level (Interview Ludwig 2016). Legal barriers are said to hamper the development of cross-border services. The Luxembourgish EU presidency proposed to develop a legal instrument (the so-called 'European crossborder convention') which allows cross-border regions to apply only one of the national legal systems of the involved countries in a defined field of cooperation. Cross-border regions could become testing grounds to simplify the cooperation of transport providers. This idea is proposed to be developed further until it can be applied and be of benefit for the development of transport within cross-border regions (Interview Beck 2016; Interview Schelkmann 2016; Interview Kiffer 2016).

In the European agreements on the liberalisation of the public transport offer within the EU it is said to have been missed to integrate an obligation of the transport providers to connect their **tariff structures**. Before the liberalisation it was possible to buy consistent cross-border tickets. Today many cross-border connections could not be purchased with a single ticket anymore (Interview Schreiner 2016).

#### Political will

The political will is said to be very important for the implementation of cross-border projects. Currently Beck sees a high political support on all levels of the Greater Region (Interview Beck 2016). Often the **lobbying of local stakeholders** is said to be needed because the national and regional level would not become active when they did not perceive local needs and challenges (Interview Besch and T. Juttel 2016).

When the national levels of the member states, belonging to the Greater Region, need to be involved, often the **national support** for cross-border transport projects is said to be quite low. In France the national level has a high decision-making power concerning the implementation of transport projects across borders (Interview Bost 2016). The needed national support is said to make cooperation processes more complex (Interview Besch and T. Juttel 2016). Because of the small size of Luxembourg, decision making is considered to be much easier (Interview Dostert 2016). In Belgium, the steering of train connections takes place at national level – located far away from the external borders – and is more focused on the commuter flows to Bruxelles. This is said to lead to a neglecting of rail connections to Luxembourg (Interview Besch and T. Juttel 2016). Also when the German national level needs to be involved it might happen that the demands of the Greater Region are not considered as a main priority

(Interview Schelkmann 2016; Interview Trinemeier 2016). Therefore it is considered to be very relevant to increase the **external visibility** of the Greater Region and clarify the added value of cross-border transport (Interview Schelkmann 2016).

Cross-border cooperation at local level is said to strongly depend on **political stakeholders**, i.e. the local mayors and their relationship to the mayors on the other side of the border (Interview Vidal 2016). Often politicians are said to prefer to spend the scarce funds preferentially in national transport projects instead of in cross-border projects because this is considered to be favoured by the **voters** (Interview Clev and H. J. Fette 2016). Therefore, it is said to be very relevant to have good **relations** to the political decision-makers and have persuasive reasons to be able to **convince** politicians of the relevance of cross-border transport. The political support is needed to improve cross-border transport (Interview Schreiner 2016). Also on other administrative levels, the interests of the politicians are said to strongly influence the focus of investments of a country (Interview Kies 2016). Therefore, **political instability** in terms of frequent changes of government, as it was the case in Belgium, are said to hamper a smooth coordination of the transport development (ibid.).

#### **Information**

In the field of public transport, the existence of some cross-border offers is considered not to be efficiently promoted to the public like the SaarLorLux ticket (Interview Sohn 2016). A well-functioning common information platform on the public transport offer is said to be missing (ibid.) which could motivate commuters to use the cross-border public transport offer more frequently.

#### <u>Time</u>

The above-named challenges are said to prolong the coordination and implementation processes of cross-border transport projects. It is said to potentially take a very long time until an agreement for investments across borders can be achieved. Also the establishment of new infrastructures is said to be very time consuming and to need several years (Interview Arts 2016; Interview Besch and T. Juttel 2016; Interview Jacquey 2016). The creation of public transport connections is considered to be much faster (Interview Besch and T. Juttel 2016). Particularly in the case of the transport flows to Luxembourg which are steadily growing the establishment time of infrastructure and services is considered to be too long so that once they are established they would be congested again (Interview Besch and T. Juttel 2016; Interview Camps 2016; Interview Sohn 2016).

The experiences depicted by the interviewed stakeholders show that the cooperation across borders – particularly in the field of transport – is not an easy undertaking although it has been addressed in the Greater Region and its internal borders since many years. Most portrayed challenges concern EU funded and non-EU funded projects and are the reason for the still existing barriers across borders. The next section compares the contribution of the EU funded and non-EU funded projects on cross-border transport in the Greater Region.

#### Comparison of cross-border transport projects with and without EU support

The cross-border transport projects of both categories refer to certain transport-related objectives defined in the EU policies and thus are expected to have been influenced by the EU policy to a certain extent.

It is easier to acknowledge the influence on the EU funded projects as these have to refer to the multiannual funding programmes' objectives in order to be accepted for funding. The funding programmes in turn were developed under the direct influence of the EU policies and the latter's framework of objectives but could choose their priorities based on the soft spaces territories' (i.e. corridor, transnational space, cross-border region) needs. The decision about the approval of INTERREG projects

is taken by the regional administrative levels of the involved member states. This assures a consideration of the local transport needs. The TEN-T projects, however, are approved at EU level.

Besides the different needs of the soft spaces, the three EU funding programmes have a different logic of orientation towards the transport development and can complement each other. Both INTERREG programmes focus more on local transport needs and promote the coordination and mutual understanding of cross-border stakeholders. The TEN-T programme, in contrast, focuses its supports on major infrastructures between large urban centres. As long as these centres are located within the cross-border region the TEN-T programme is considered to be of added value for the internal transport.

The financial support of the EU programmes is an advantage, as this trigger can facilitate the implementation of EU transport-related objectives in the projects and ensure the implementation with a higher probability than the non-EU funded projects. The TEN-T projects represent the highest number of cross-border transport projects funded in the Greater Region. Additionally, the highest amount of money was invested in this programme. The opportunity of EU funds has motivated cross-border regional stakeholders to develop cross-border transport projects and address challenges for which not enough national funds were available because of empty public coffers.

However, as the EU funds are limited, not many projects can benefit from them. They can solely complement national investments.

Most of the non-EU funded projects have been developed due to strong demands and necessities. Most projects were implemented in and around Luxembourg because of a congested transport network due to strong commuter flows from the neighbouring countries. It was found out that these needs are more decisive for the projects' focus than the EU policy objectives themselves.

Besides the financial support, the INTERREG programmes have facilitated the exchange of local and regional stakeholders. This is said to have deepened contacts for future cooperations. Thus, it can be seen as impetus for a stronger cross-border coordination of the transport development after the end of EU funding.

The next section evaluates the influence of the two EU policies and their related funds on cross-border transport.

## 6.3.6 Impact of EU policies and funds on cross-border transport - added value?

The EU policies that both led to the opening of the internal borders and defined the four basic freedoms strongly contributed to cross-border mobility and commuting, and they are thus said to have had an influence on cross-border transport. Therefore, the domestic transport planners had to begin steering the transport flows by investing in infrastructures and services (Interview Clev and H. J. Fette 2016).

This chapter summarises the findings regarding the influence and relevance of the ETC (INTERREG) policy and TEN-T policy and their associated funds on the cross-border transport development of the Greater Region.

## ETC/INTERREG influence

The influence of the ETC policy is evaluated on three levels. First, the promotion of cross-border transport within the ETC policy documents and the domestic policy documents is described. Second, the influence of the Cohesion Policy on the INTERREG A and B Operational and Cooperation Programmes is evaluated, which is followed by a description of the contribution of the projects funded by the ETC policy to cross-border transport in the Greater Region.

## Cohesion/ETC policy

The two Cohesion Policy documents analysed during the first funding period both support the improvement of cross-border infrastructures and the linkage of the TEN-T and secondary transport networks. Yet, the enhancement of cross-border transport services is only promoted by one of the documents. During the second funding period (2014–2020), the distribution changed, so that cross-border infrastructures and the linkage of the TEN-T to secondary networks are only promoted by 50% of the four policies, whereas cross-border transport services are desired to be enhanced by 75% of the documents. On average, 67% of all Cohesion Policy documents from both funding periods promote all three categories relevant to cross-border transport. This shows that the Cohesion Policy follows a comprehensive approach towards cross-border transport.

In the **domestic policies**, cross-border infrastructures were promoted more during the first funding period. The degree of promotion of this objective during the second funding period was reduced. This change was not seen in the EU policies. However, the reduced promotion of the linkage of the TEN-T and secondary networks that occurred in the EU policy documents also took place in the domestic policies. The promotion of cross-border services became more similar in the domestic and EU policies developed during the second funding period. The relevance of cross-border infrastructures and services in the domestic policy documents varies between member states. It is promoted strongly by Luxembourg, whereas it is promoted the least by the German policy documents.

The **cross-border policies** promoted cross-border transport to a much greater extent than the domestic policies; however, the promotion of the linkage of the TEN-T and secondary networks and the TEN-T corridors is lower. This leads to the assumption that the cross-border policies are influenced less by the TEN-T policy than by the ETC policy. However, it might also be explained by the fact that cross-border policies are more focused on internal accessibility and thus on transport on a smaller scale.

## <u>Operational and Cooperation Programmes: INTERREG A Greater Region + INTERREG B North-West Europe</u>

The INTERREG A programme is intended to support peripheral border regions that were not sufficiently supported by the national levels in the past. Therefore, according to Kurnol, INTERREG A has a direct cross-border focus and it is considered to be ideally suited for the development of regional and local cross-border transport projects (Interview Kurnol 2016). This is acknowledged by Louwers (2016) because, since the ETC policy belongs to the European Cohesion Policy and barriers between the countries are to be reduced, transport is considered to be an important tool for achieving European cohesion. Therefore, the transport projects funded via INTERREG should not solely focus on the establishment of transport connections, but also show an **added value for European cohesion** and consider local drawback effects for other sectors such as the environment. Therefore, INTERREG is said to influence the **philosophy** of its transport projects (Interview Louwers 2016). This is acknowledged by the experience of the *Eurodistrict* SaarMoselle, which had to amend the objective of a transport project from being solely transport focused objective to having a **broader perspective** (Interview Kiffer 2016).

The INTERREG B programme is actually considered to have had a certain **influence on the TEN-T policy** through one of its projects. As in the CODE24 project, the TEN-T policy started to transfer EU funds to transnational corridors in order to coordinate the removal of bottlenecks more efficiently (Interview Louwers 2016). Additionally, Sohn (2016) considers the cooperation in macro-regions and INTERREG to be very important, particularly in relation to the TEN-T development. He believes that the influence of INTERREG B on the European transport system will develop further in the future (Interview Sohn 2016).

In 2014, the EU introduced the requirement that the cooperation areas had to choose specific priorities from among eleven predefined objectives. Thus, the cooperation areas had to focus on a restricted number of cooperation fields of their own choosing. This partially led to the omission of transport objectives. All three cross-border transport objectives were promoted by the INTERREG A programme of the Greater Region during the first funding period. The objective of linking the TEN-T with secondary networks, however, was abandoned between 2014 and 2020. Even the TEN-T was no longer explicitly mentioned. This might have been influenced by the EU policies, since they also promoted this objective to a lesser extent.

The INTERREG B programme of North-West Europe from 2007–2013 promoted all three cross-border transport-related objectives. In the current funding period, these objectives were no longer mentioned. This was provoked by the EU policies' requirement to focus on a restricted number of fields of cooperation. Additionally, the programme explicitly passed the task of improving large-scale infrastructures to the Connecting Europe Facility and therefore to the TEN-T policy.

Overall, during the first funding period, cross-border transport was promoted strongly by the INTERREG A and B programmes, which concern the territory of the Greater Region, whereas the contribution of INTERREG B was reduced during the current funding period. Only the INTERREG A programme promotes the improvement of cross-border transport infrastructures and services, although it does not refer to the TEN-T anymore. This might be intended to clarify that the INTERREG A funds are to be spent on regional and local cross-border connections and not on large-scale infrastructures. According to Beck (2016), the relevance of cross-border transport development and mobility has grown in the new INTERREG A cooperation programme of the Greater Region. Therefore, he argues that the INTERREG A funds are vital for cross-border transport in the Greater Region (Interview Beck 2016).

The rejection of transport objectives in the INTERREG B North West Europe programme is acknowledged by Louwers (2016). During the 2007–2013 funding period, the programme had a stronger focus on territorial development and transport, while the current period (2014–2020) is more economically and socially focused. Only transport projects related to CO<sub>2</sub> reductions (but not to connectivity) can be supported financially. Therefore, the influence on cross-border transport in the Greater Region has been minimised (Interview Louwers 2016; Interview Kiffer 2016). It is regrettable that the exchange seen in other transport-related fields cannot be continued during the current funding period (Interview Kiffer 2016). In general, the programme is considered to influence cross-border transport much more through its projects than with its policy documents (Interview Louwers 2016).

The INTERREG A cooperation programme is considered to be the main **platform for the coordination**, **planning and final implementation** of cross-border transport development in the Greater Region. The implementation of other non-EU-funded plans and studies is said to have been hampered in many cases thus far (Interview Ries 2016). INTERREG B funds, however, have not been taken into account as strongly on the subregional French scale in the field of cross-border transport (Interview Arts 2016). Additionally, in Luxembourg and Rhineland-Palatinate, the INTERREG B programme is <u>not</u> considered to have a direct influence on cross-border transport (Interview Vidal 2016; Interview Schelkmann 2016).

The INTERREG A programmes are managed by the regional levels of the involved member states, with the exception of Luxembourg, where the national level is responsible. Decisions concerning the INTERREG B programmes are taken by the monitoring committees, which include regional as well as national delegates, depending on the member states' structures. The German Speaking Community of Belgium, for instance, is involved in the administration and decision-making associated with ETC projects (Interview Hilligsmann 2016). By participating in the monitoring committee of a cooperation programme, the members obtain an overview of the variety of project objectives that are developed in

the field of transport by other countries and partners. In that way, **learning processes** are said to have been initiated between the neighbouring countries (Interview Harmeling 2016).

The **INTERREG A and B programmes** and the domestic policies of the current funding period (2014–2020) promoted cross-border transport to a lesser extent than that seen during the previous funding period. Additionally, cross-border infrastructures were promoted less. According to the interviewed stakeholders, the necessary contact and cooperation across borders between the domestic levels administrating the INTERREG programmes contributed to **learning** and **coordination processes**. Information was exchanged about aims, negotiations were conducted, a consensus was reached and a common vision was defined for the cooperation region, which was also the case in the field of transport (Interview Bost 2016; Interview Straehli 2016; Interview Beck 2016; Interview Chlench 2016). This has potentially contributed to the coordination of the varying transport-related objectives found in the domestic policies. According to Clev and Fette, the INTERREG B programmes focussed on **mutual comprehension** across borders and less on small-scale investments (Interview Clev and H. J. Fette 2016).

Furthermore, INTERREG is said to support **bottom-up initiatives** that would not have been supported in the national regular transport development framework and thus complement the national policy focuses. With the help of INTERREG, these initiatives could **experimentally develop their ideas** and then try to influence national or even European official policies (Interview Louwers 2016).

#### ETC funds and INTERREG A + B projects

The INTERREG A transport-related projects of the first funding period (2007-2013) aimed at improving cross-border infrastructures and services to a lower degree (71%) than the Operational Programme. Cross-border services were supported to a similar degree as seen in the Cohesion Policy documents. The linkage of the TEN-T and secondary networks was only promoted by one project (14%), which represents a lower degree than that seen in the EU policy and the Cooperation Programme. In the new funding period, all the projects supported cross-border infrastructures, while half of them contributed to cross-border services. This does not resemble the EU policy focus, which supported crossborder services to a stronger degree. However, the numbers can still change as the funding period has not yet been completed. Several INTERREG A projects of relevance to cross-border transport were named by the interviewed stakeholders. Among others, during the first funding period, an INTERREG A project focused on a study concerning the enhancement of a rail track belonging to the TEN-T Atlantic core network corridor. Thus, there seems to have existed a **mutual influence** of the implementation of the ETC and TEN-T policy. INTERREG A cross-border transport projects are said to increase the awareness of the importance of the coordination of transport planning across borders (Interview Beck 2016). Three of the five projects that aimed at contributing to cross-border transport infrastructures, however, only developed bicycle infrastructures for mainly touristic purposes. Therefore, the projects are not considered to contribute much to the perceived infrastructural challenges seen in the Greater Region.

The **INTERREG B** transport-related projects from the last funding period did not strongly support cross-border transport-related objectives. Only 15% of the projects contributed to cross-border infrastructures, 25% to the connection of the TEN-T and secondary networks and 20% to cross-border services. This contradicts the strong promotion of transport during this period seen in the Operational Programme and the Cohesion Policy. The projects mainly focused on somewhat practical topics such as the **research and development of prototypes** for long distance **freight transport** and some investments in last mile infrastructures. They are thus considered to have had a low influence on cross-border transport. However, these projects are sometimes said to have had an implication for national policies and the coordination of transport across borders (Interview Louwers 2016). The INTERREG B

project CODE24, which only marginally influenced transport within the Greater Region, is considered to have been very successful and decisive in relation to the cooperation of the regions crossed by a TEN-**T** corridor. Based on that project, an EGTC supports further cooperation. It is also expected to apply for further INTERREG funds in the future in order to contribute to the implementation of the formulated transport objective of the EU policy. However, no transport infrastructures were established. Instead, the project has supported the exchange of opinions concerning common challenges and a transnational coordination of shared aims. Without the funds, this would not have happened. Thus, the funds are an incentive to transnational exchange, for example, in the field of transport (Interview Trinemeier 2016). As the project dealt with the coordination of a TEN-T corridor development, it tested a transnational approach to corridor development. Therefore, the **TEN-T programme** is considered to have been **influenced** because it also adopted such a transnational approach (Interview Louwers 2016). During the second funding period, only one INTERREG B transport project has been funded thus far, which did not relate to cross-border transport at all. This is in line with the cooperation programme's promotion. In general, it is said to be difficult to measure the influence of INTERREG B projects on cross-border transport in the Greater Region, since the projects' partners do not solely come from the Greater Region. Furthermore, it is not documented which project partner developed which part of a common project solution. Usually, concepts rather than concrete infrastructures were developed. Most INTERREG B projects developed a **policy paper** at the end of their funding period. These might have an influence on the transport development of the involved partners (ibid.).

Overall, however, the INTERREG A and B funds are both expected to contribute to cross-border transport development, albeit with different focuses (Interview Ries 2016; Interview Clev and H. J. Fette 2016). The EU financial support for the ETC policy is said to be very important for the involvement of all relevant stakeholders as well as for the implementation of projects. Without that support, several projects would not have been conducted (Interview Beck 2016) and implemented (Interview Castagne 2016; Interview Bost 2016; Interview Sohn 2016; Interview Vidal 2016). The financial support is not high, although it often contributes the required amount of money (Interview Castagne 2016; Interview Louwers 2016). It is hence an important push factor for cooperation. Optimally, the projects should be sustainable and prolonged or implemented after the end of INTERREG funding (Interview Chlench 2016). In the beginning, the ETC policy funded touristic bicycle and hiking trails. After some time, roads were also to be connected across borders and studies were conducted regarding rail transport infrastructures. Additionally, the development of cross-border bus lines has been stimulated by INTERREG projects (Interview Beck 2016). However, no large expensive infrastructure projects can be funded, but rather local small projects focussing on, for example, cross-border ticketing apps are funded (Interview Besch and T. Juttel 2016; Interview Arts 2016; Interview Ripp 2016; Interview Clev and H. J. Fette 2016; Interview Demortier 2016). Therefore, Ball does not consider the ETC projects to have a decisive influence on cross-border transport (Interview Ball 2016). Other interviewed stakeholders, however, argue that small-scale transport projects can also be of high added value for commuters (Interview Arts 2016; Interview Chlench 2016). According to Ludwig, the INTERREG A projects are an important **impetus** for cross-border transport developments. Indeed, the cross-border bus lines developed ten years ago via INTERREG A are still maintained (Interview Ludwig 2016). Furthermore, the exchange of plans and concepts as well as feasibility studies can be funded (Interview Demortier 2016; Interview Ripp 2016; Interview Ball 2016; Interview Vidal 2016). Moreover, it is expected that the project results can be applied in further cross-border transport sections of the Greater Region (Interview Kiffer 2016). During the current funding period (2014–2020), however, the ETC support has not been used as strongly as expected (Interview Vidal 2016).

The **coordination** across borders is another important outcome of the INTERREG projects (Interview Castagne 2016; Interview Bost 2016; Interview Sohn 2016). Bilateral coordination without EU support

structures might be discontinued more easily (Interview Castagne 2016). Additionally, the projects are said to increase the mutual knowledge of the involved stakeholders regarding the approaches of the transport planning systems of all subregions (Interview Beck 2016) and create learning processes across borders (Interview Arts 2016; Interview Chlench 2016; Interview Ries 2016; Interview Clev and H. J. Fette 2016; Interview Sohn 2016; Interview Schelkmann 2016; Interview Louwers 2016; Interview Vidal 2016). The Eurodistrict SaarMoselle participated in an INTERREG IVB project in which it exchanged experiences and learned from other European partners located outside the Greater Region in several regards and hence developed its transport infrastructure project further (Interview Kiffer 2016). Ries and Sohn expect an approaching of **planning cultures** in the long run based on cooperation in INTERREG A projects (Interview Ries 2016; Interview Sohn 2016). Ludwig and Chlench, however, do not believe that INTERREG has strongly contributed to the harmonisation of planning cultures, since the differences are said to still be perceived dominantly and persistently in cross-border cooperation in the field of transport and spatial planning. Planning cultures are considered to be strongly interwoven with the different planners' education (Interview Ludwig 2016; Interview Chlench 2016). The implementation of commonly defined strategies for the INTERREG B projects is done in the respective national contexts. Therefore, it is also not expected that the planning cultures are aligned as a result of INTERREG B cooperation (Interview Trinemeier 2016). Still, a contribution to the development of a cooperation culture is expected to be made through INTERREG projects because they group stakeholders from a certain field of interest across borders (Interview Jacquey 2016; Interview Sohn 2016). The projects help participants to get to know the interests of the other project partners better, which can be used as a **basis for further projects** (Interview Ludwig 2016; Interview Chlench 2016). Cross-border transport projects might have illustrated the relevance of connecting one's own region with the bordering countries as well as of **thinking internationally** in the field of spatial and transport planning (Interview Louwers 2016). These effects are considered to be most important in addition to the visible results of the projects (Interview Sohn 2016).

Besides the potential benefits named, some **challenges** regarding the influence of the ETC policy on cross-border transport were also named. The **application procedure** for INTERREG projects would be very complex and time intensive, and it is thus considered to be a **barrier** (Interview Harmeling 2016; Interview Trinemeier 2016; Interview Chlench 2016). It is considered to be too complicated for private companies and is therefore used more often by municipalities (Interview Weidenhaupt 2016). Other countries are considered to benefit more from INTERREG funds than Rhineland-Palatinate because the other countries invested more manpower in the development of project proposals. It is hence planned to benefit more in the future by increasing the number of project proposals (Interview Harmeling 2016). Furthermore, according to Schelkmann, the results and ideas of INTERREG projects need to be made better use of. They should also be **integrated** better into the regional sectoral policies (Interview Schelkmann 2016) in order to enlarge the outcome.

#### **Evaluation**

The ETC policy promotes cross-border transport in a comprehensive way – both services and infrastructures can be supported as well as the linkage of the TEN-T and secondary networks. The investments should contribute to European cohesion. Additionally, the TEN-T development is to be complemented. During the current funding period (2014–2020), this task was reduced. There should be more focus on regional infrastructures.

In the end, the Operational and Cooperation Programmes of the transnational regions determine which priorities are defined and whether the transport development projects can be supported. These are strongly influenced by both the involved member states and regional needs. Participation in the monitoring committees of the programmes has facilitated an exchange across borders.

In the Greater Region, cross-border transport has been perceived as an important challenge to the fostering of cross-border projects. During the current funding period, the INTERREG B North-West Europe programme, however, decided to no longer prioritise transport investments. Benefits for cross-border transport practice in the Greater Region were reported through the exchange seen in INTERREG B projects with project partners located outside the Greater Region. Thus far, not many stakeholders in the Greater Region seem to have taken advantage of this potential.

The projects funded by INTERREG A and B have not yet fully echoed the objectives' relevance in either the ETC policy or the programmes. The improvement of cross-border transport in general was rarely supported, with a slightly stronger focus on cross-border services being seen during the last funding period and higher support for infrastructures being observed in the current funding period. Some projects from the last funding period were related to the TEN-T corridors and they are said to have influenced the TEN-T policy.

The INTERREG A and B projects could not support large-scale infrastructure investments, although they could be used for (experimental) studies and small-scale infrastructures and services. Thus, the ETC policy and financial support can complement the domestic, bilateral and TEN-T transport investments. The financial support is said to be an important incentive. Additionally, the projects' soft contribution, which is based on coordination of planning, exchange of experiences, learning processes and a grouping of relevant stakeholders, is considered to be very valuable for the enhancement of cross-border transport. Thus, the facilitating and initiating character of the ETC policy is appreciated by several of the interviewed stakeholders. Therefore, the ETC policy offers an example of European integration according to the theory of *constructivism*. A challenge to the overall benefit of the ETC policy in a cross-border region is the complex and time-intensive application procedure for the ETC funds. This is considered to be a barrier to cooperation.

## **TEN-T** influence

The influence of the TEN-T policy is evaluated on three levels. First, the influence of the TEN-T policy documents on cross-border transport as well as on the domestic policy documents is described. Second, the influence of the priority projects and TEN-T corridors is evaluated, which is followed by a description of the contribution of the projects that were funded by the TEN-T policy to cross-border transport development in the Greater Region.

#### TEN-T policy

The TEN-T policy has strongly promoted the improvement of cross-border infrastructures during both funding periods (100%). Yet, the linkage of the TEN-T and secondary networks is promoted much less (by 33% of policies in 2007–2013 and 17% in 2014–2020). Cross-border services are only promoted by 33% of the TEN-T policy documents from both funding periods. Thus, the TEN-T policy focuses on **TEN-T cross-border transport infrastructures**.

In all the member states involved in the Greater Region, the **TEN-T corridor development is mainly steered at a national level**. Therefore, the regional and lower administrative levels are less involved in the planning. Thus, the TEN-T policy objectives and the promotion of cross-border infrastructures are expected to mainly be implemented and promoted by the national levels, and to a lesser extent by the lower administrative levels. This is acknowledged by some of the interviewed stakeholders. The TEN-T corridor crossing Wallonia is said to mainly be based on rail transport. As the region has no competence for rail transport, the TEN-T corridor does not influence its regional policies (Interview Castagne 2016). The *département Meurthe-et-Moselle* is crossed by the E23, which belongs to the North Sea Mediterranean Corridor. However, as the *département* is considered to not be particularly concerned by this corridor, in its internal transport it does not try to achieve a better connection to it (Interview Arts

2016). As the German regions do not need to pay for the expansion of national road tracks, it is said to not matter to them whether the EU or the national level fund the investment (Interview Glöckner 2016).

When looking at the **domestic policies**, the enhancement of cross-border infrastructures is promoted by approximately 70% of the French and Luxembourgish national policies, but by less than 50% of the Belgian and German national policies. Compared to the promotion of this objective within the TEN-T policy, the national policy documents do not consider it to be as important as the EU policy. In particular, the countries in which the national levels share transport competences with lower administrative levels deviate from the EU policy documents' promotion. At a regional level, the Walloon domestic policies' contribution to cross-border infrastructures is higher (more than 65%). However, still less than 50% of the German regional policies promote this objective. The objective is promoted more at a subregional level. In the German national policies, the linkage of the TEN-T and secondary networks is promoted more than in the other countries' policies, albeit still to a low degree (approximately 30%). The promotion is similar to the TEN-T policies' promotion of this aim during the first funding period. The comparison shows that the domestic transport planning systems and the distribution of the transport competences seem to have a strong influence on the implementability of the EU policies.

According to the TEN-T corridor coordinator for the North Sea Mediterranean corridor, both the TEN-T policy and the corridor work plans are said to strongly contribute to the development of cross-border transport. This should complement the national transport plans, which mainly focused on the national territory and less on cross-border or European connections, by comprising the whole EU territory and the cross-border transport sections that connect the network (Interview Balázs 2016). According to Balázs, the INTERREG A Greater Region and the North Sea Mediterranean Corridor shared the **same interest in promoting cross-border transport**. Therefore, **synergy effects** could be established (ibid.).

Ludwig considers the steering of TEN-T corridors at the EU level to be reasonable. In that way, the funds could be **focused** on special axes so that the added value of the funds could be perceived more easily (Interview Ludwig 2016). The **expansion of road tracks** that belong to a TEN-T corridor is more likely to be approved by the German national level. However, road infrastructures are said to only be expanded if it is **necessary for transport development** and not solely because the track belonged to a TEN-T corridor. Therefore, Glöckner evaluates the TEN-T's influence on cross-border transport to be rather low (Interview Glöckner 2016).

The introduction and definition of the comprehensive and core network within the TEN-T regulations for the funding period 2014–2020 was mainly steered by the **European Commission**. It was based on a scientific analysis of the existing freight and passenger flows independent of national borders. The EU thus initiated the definition of prior corridors, which was negotiated with the national and regional levels. The latter are said to have had a strong influence and caused some amendments to be made to the EU proposals. Still, the European Commission has initiated the coordination of transport prioritisation of the transport infrastructures of the member states. As it additionally offers financial incentives for the implementation, it has become an important **supranational stakeholder**.

How the TEN-T policy has influenced the priority projects and TEN-T corridors in the vicinity of the Greater Region, as well as how the latter influence the domestic and cross-border policy documents, will be presented in the next section based on the findings of the policy document analysis.

#### Priority projects & TEN-T corridors: North Sea Mediterranean + Atlantic

Two **priority projects** were conducted on the territory of the Greater Region. Priority project 4 (Highspeed rail axis east) supported investments in new and upgraded high-speed passenger rail infrastructures that cross parts of the Greater Region. It additionally promoted the establishment of cross-border rail service connections. Priority project 28 (EuroCapRail) supported an increase in travel

speed by investing in the rail infrastructure for passenger and freight connections between Bruxelles (BE), Luxembourg (LUX) and Strasbourg (FR), that is, the start and end points of the connections are not located within the Greater Region. Both projects refer to the improvement of cross-border infrastructures and services, although they do not aim at linking the TEN-T and secondary networks.

The North Sea Mediterranean and Atlantic TEN-T corridors strongly foster the improvement of crossborder infrastructures, but only the North Sea Mediterranean corridor also aims at linking the infrastructures to secondary networks. Cross-border transport services are not mentioned in either corridor's work plans. Thus, like the EU policies, they aim at improving high-speed cross-border transport infrastructures with only a low reference to secondary networks and services. This impression is shared by the interviewed stakeholders. Most of them consider the TEN-T corridors to support large-scale international cross-border transport flows, which are based on touristic or economic factors, and not local transport across borders. Therefore, the influence of the TEN-T on cross-border transport in the Greater Region is said to be very low (Interview Besch and T. Juttel 2016; Interview Planungsgemeinschaft Region Trier 2016; Interview Harmeling 2016; Interview Clev and H. J. Fette 2016; Interview Hilt 2016; 2017; Interview Demortier 2016). Ludwig does not expect any additional influence besides the external linkage and accessibility of cross-border regions because cross-border transport was focused on a smaller scale area (Interview Ludwig 2016). According to the Planungsgemeinschaft Region Trier, the Greater Region is hardly connected to the TEN-T (Interview Planungsgemeinschaft Region Trier 2016). Additionally, Chlench is not satisfied with the routing of the TEN-T corridors, since it is **not** considered to be very **effective** for the Greater Region as a crossborder polycentric metropolitan region. The Greater Region consists of several centres rather than just one main centre; therefore, the whole region might not be properly connected. This challenge needs to be considered by transport planning in the future (Interview Chlench 2016), since the accessibility of the TEN-T was evaluated to be important. Unfortunately, investments in these large-scale infrastructures were very expensive and fund-consuming, which proved detrimental to small-scale cross-border projects (Interview Planungsgemeinschaft Region Trier 2016).

While the main focus of the priority projects was on rail infrastructures during the first funding period (2007–2013), the corridors have introduced a multi-modal approach, including waterways, roads and air transport. One of the promoted cross-border sections of the Atlantic Corridor concerns transport between Metz (FR) and Mannheim (DE). Additionally, the link to Luxembourg (LUX) should be improved. The North Sea Mediterranean Corridor involves the French, Belgian and Luxembourgish parts of the Greater Region. It particularly promotes the enhancement of the rail connection between Bruxelles (BE) and Luxembourg (LUX).

Moreover, the interviewed stakeholders referred to the above-named priority projects and corridors. Although the 'EuroCapRail' **priority project** has been promoted strongly for many years, the associated challenges are considered to have persisted. Therefore, Ball does not consider the priority project to be relevant for cross-border transport (Interview Ball 2016). Demilie, however, thinks that the implementation of the project will decrease the travel time involved in the rail connections between Bruxelles and Luxembourg, thereby improving cross-border transport (Interview Demilie 2016) in the extended cross-border region and having an impact on **external accessibility**. Improved external accessibility might increase the cross-border traffic in the Greater Region (ibid.). This is also expected by Dostert (Interview Dostert 2016). Kiffer thinks that the TEN-T railway axis between Saarbrücken (DE), Forbach and Paris (FR) is of strong importance for the member states, although it has a lower influence on cross-border transport at the local level (Interview Kiffer 2016). Bissen sees the relevance of the North Sea Mediterranean TEN-T corridor for cross-border commuters within the Greater Region because the corridor contains the cross-border sections for passenger transport. Among others, these

corridors are to be equipped with **ERTMS** so that the provision of **cross-border rail connections** will be simplified (Interview Bissen 2016).

In general, the influence of the **TEN-T corridors** in practice was discussed controversially. Antoine does not believe that the development of the European TEN-T corridors has had a strong impact on cross-border transport because these transport axes already existed. Certainly, their designation as transport corridors would not change the habits of traffic (Interview Antoine 2016). Additionally, Schreiner criticises the missing obligation following the definition of the TEN-T corridors at the EU level to develop cross-border services on these tracks, since the transport providers cannot be obliged to offer services (Interview Schreiner 2016). According to Trinemeier (2016), the TEN-T corridor definition has produced an added value, that is, it contributed to a large-scale awareness-raising concerning the influence of the transport axis. Due to this, a comprehensive **analysis of bottlenecks** and challenges was conducted, followed by the definition of investment priorities and the linkage of strategies. Still, it is said to not be guaranteed that such efforts will influence the implementation (Interview Trinemeier 2016). According to Weidenhaupt, the influence of a TEN-T corridor on crossborder transport strongly depends on the regional strategies and their objective in relation to corridor development (Interview Weidenhaupt 2016). Schelkmann (2016) considers that the TEN-T corridors that cross the Greater Region have a **positive influence** of cross-border transport. The region should therefore make more benefits out of this opportunity by connecting its transport network to the corridors (Interview Schelkmann 2016). This is also demanded by Demortier (2016) in relation to the Walloon region. The region should make use of EU funds in order to be better connected to the corridors so that it can economically benefit from them (Interview Demortier 2016). Further, Louwers (2016) considers the TEN-T corridors to be of high relevance to the regions that are crossed, since they influence the regions' accessibility as well as their industries, jobs, freight transport and inhabitants. He considers it impossible to block that influence (Interview Louwers 2016). Moreover, Sohn (2016) regards the TEN-T corridors to be very important for the external accessibility of cities as well as for cross-border transport. He considers that their influence will grow even stronger in the future (Interview Sohn 2016). Chlench (2016) theoretically expects the corridors to exert positive effects on the development of a region once they are fully implemented. The facilitated transport flows might make it more attractive to settle down in their vicinity and benefit from accelerated transport connections (Interview Chlench 2016). If the TEN-T corridor infrastructure axes do not solely cross the cross-border regions, but instead have several nodes within, they are considered to be relevant for the cross-border transport of a crossborder region (Interview Kurnol 2016).

When analysing the influence of the corridors and priority projects on the **domestic policies**, it was noted that 39% of the domestic policies refer to the TEN-T corridors, while cross-border transport itself is mentioned by 67% of the domestic documents and is thus more popular in the policy discourse. Only 33% of the **cross-border policies**, as developed in cooperation between the member states, mention the TEN-T corridors. However, all of them mention cross-border transport. The objective of enhancing cross-border infrastructures is promoted by approximately 80% of the cross-border policies and is thus more commonly referenced than in the domestic policies (57%). The comparison shows that the cross-border policies promote the enhancement of regional and subregional infrastructures more than the linkage of the TEN-T. The influence of the TEN-T corridors on cross-border policies is lower than that on the domestic policies. This is acknowledged by Ries (2016) from the Interregional Parliamentary Council of the Greater Region. Besides the relation to the long distance passenger rail connection between France and Germany, as well as the 'EuroCapRail' connection, the TEN-T is not said to be addressed much in the political coordination of cross-border transport in the Greater Region (Interview Ries 2016). It is evaluated as negative that the cross-border region was not involved in the decisions concerning the routing of the TEN-T corridors, while the Summit of the Greater Region has thus far not

lobbied in Brussels to improve the accessibility of the Greater Region. It would have been better if the Greater Region was involved in facilitating the implementation and enhancement of cross-border transport (Interview Planungsgemeinschaft Region Trier 2016).

#### TEN-T funds and projects

The TEN-T-funded projects were to be adapted to the priority projects and corridors in order to support their implementation. The TEN-T **financial support** is said to be important in facilitating improvements to cross-border transport infrastructure, for example, on the rail axis between France and Luxembourg (Interview Bost 2016; Interview Ludwig 2016). However, the EU TEN-T funds are said to sometimes not be sufficiently high, while they are sometimes actually lower than the available regional support. Then, the incentive to implement the EU objectives is said to be missing at the local level (Interview Schreiner 2016). Schreiner noticed that the TEN-T funds were sometimes not known about at the regional level (ibid.) and therefore not promoted and made use of.

During the first funding period (2007–2013), only 38% of the TEN-T projects aimed at enhancing crossborder transport infrastructures. More of them were related to investments that improved cross-border services (48%), although often they solely focussed on national infrastructures. This deviates from the strong promotion of cross-border infrastructures seen in the TEN-T policy. During the second funding period (2014–2020), a higher percentage of the projects (67%) have supported the expansion of crossborder infrastructures. Although rail, road and inland-waterway projects were supported during both funding periods, more than 75% of projects focused on rail transport. The support for cross-border services remained similar. In both funding periods, the linkage of the TEN-T to secondary networks was not (very) relevant. When comparing the two funding periods, the second period seems to have contributed more to cross-border transport infrastructures. Additionally, around 50% of the projects referred to cross-border transport services, which were neither strongly promoted by the TEN-T corridors and priority projects nor by the TEN-T policy itself.

The interviewed stakeholders did not name concrete TEN-T projects. Instead, the priority projects and TEN-T corridors were mentioned several times. Thus, the projects seem to be **less visible** to the general subnational administration. This might also be due to the fact that the funding decisions are taken at the EU and not the regional level.

A **challenge** for the contribution of the TEN-T policy and its funds to cross-border transport in the Greater Region is said to involve the prior support of new member states, although transport challenges persisted in the cross-border regions of old member states as well – particularly in rural regions that are located far away from economic growth poles (Interview Beck 2016). Furthermore, the new call of the TEN-T policy for missing cross-border road and rail links is considered to have a budget that is far too restricted. Indeed, it is believed that more money should be invested in cross-border transport (Interview Kiffer 2016). Additionally, long-term EU funding of successful projects is called for because the continuation of EU-funded projects after the end of funding is often challenged (ibid.).

#### Evaluation: Contribution of the TEN-T

The supported policy objectives have been amended during the TEN-T policies' implementation process from the EU policy document to more concrete, space-related priority projects and corridors and then further to concrete funded projects. Still, the main focus lies on large-scale fast transport connections, which are relevant to the external accessibility of the cross-border region. Therefore, the influence on small-scale cross-border transport within the border region is disputed. However, according to several interviewed stakeholders, investments in external accessibility can produce stronger inbound commuter traffic and therefore the utilisation of internal cross-border infrastructures and services. Furthermore, as the Greater Region is not a small cross-border region, major transport infrastructures can also offer an

added value for cross-border transport if there are at least two nodes within the cross-border region. The EU-wide coordination of the transport networks is said to have promoted the need to enhance the infrastructures and services as well as showed potential economic benefits. Some 34 cross-border transport-relevant projects have been funded in the Greater Region so far during the last and current funding periods. Thus, the funds have contributed to the improvement of cross-border transport – particularly in the rail sector – to a strong degree. However, more funds are said to be necessary to further enhance cross-border transport and increase the speed of progress. The linkage of the TEN-T and secondary networks needs to be fostered by another policy, since this is not really facilitated by the TEN-T.

#### EU influence

The EU has **opened its internal borders** and made cross-border transport possible in order to contribute to further EU cohesion as well as to connect the domestic transport systems across borders. Additionally, economic, demographic and tax differences between the neighbouring regions of the Greater Region have made it interesting to travel across borders, for example, because of better job opportunities (Interview Weidenhaupt 2016; Interview Straehli 2016; Interview Hilt 2016; 2017; Interview Harmeling 2016; Interview Planungsgemeinschaft Region Trier 2016). Moreover, some touristic cross-border traffic already existed (Interview Straehli 2016). High cross-border commuter flows and demands made it necessary for the member states to open up their domestic-oriented transport planning and invest in better cross-border transport infrastructures and services in cooperation with their neighbours. Soft cross-border policies. Public pressure has been of high relevance (Interview Kies 2016; Interview Clev and H. J. Fette 2016; Interview Sohn 2016). Without these strong **cross-border flows** and **demand**, the domestic support for an expansion of cross-border transport would have been much lower (Interview Chlench 2016; Interview Harmeling 2016; Interview Planungsgemeinschaft Region Trier 2016).

The EU policy influence was analysed in two steps. First, the <u>formal policy implementation</u> was analysed in both the domestic and cross-border policy documents.

The comparison of the **transport planning systems** of the member states involved in the Greater Region shows that cooperation is not easy because the **responsibilities** for different transport modes – for both services and infrastructures – in the member states are allocated at different administrative levels. Additionally, the planning instruments and transport policy focuses differ to at least some degree. **Cross-border policy documents** have been developed bilaterally or multilaterally in order to coordinate and promote transport development. Cross-border transport and concrete projects were strongly promoted by the cross-border policies, which focused on regional and local connections, although they did not make much mention of the TEN-T. The TEN-T and cross-border transport were mainly mentioned by the domestic spatial planning policy documents. These turned out to be more open to cross-border cooperation than the transport policies.

The countries facing **strong cross-border commuter flows**, for example, Luxembourg, showed the highest **motivation** to promote and implement amendments, and they influenced the cross-border policies the most. Despite the strong contribution of the **cross-border policies** to enhanced services and infrastructures, which actually goes beyond the EU policies' promotion of these objectives, they are the least similar to the residual EU policy transport objectives. They focus their objectives on the most relevant regional **needs** and they exhibit a less broad transport development approach than the EU. In France, Luxembourg and partially in Germany, the **national level policies** showed the highest similarity to the relevance of the EU transport policy discourse, which seems to be related to the administrative structures of the member states. In the federally structured countries of Belgium and Germany, the regions of Wallonia and Rhineland-Palatinate, but not the Saarland, promoted the EU transport

objectives to a more similar degree than the national policies. The lower levels' policies were the most different.

One might expect that the different distribution of transport competences leads to a different percentage of implementation and willingness to contribute to the EU transport objectives. However, the analysis of the case study showed that the **level of concern regarding cross-border transport** is a more important factor that **motivates levels without formal competence** to promote cross-border transport in order to influence the responsible administrative levels. Some objectives might be more relevant at certain levels than at others. Some of the policy documents that were established in an agreement between member states and the EU related to cross-border transport, while most of them promoted the improvement of infrastructures. Overall, the **domestic policies seem to react to the EU policies' changed focuses**, since the deviation has not changed during the two funding periods, although the promotion of the EU objectives has slightly changed. However, as there is no obligation to implement the broad EU policy objectives, a **direct influence** on the domestic and cross-border policies is **missing**.

Following the analysis of the formal policy implementation, the <u>practical implementation</u> was evaluated in a second step.

The measures intended to enhance the cross-border transport situation depend on the current international, European and national **policy discourses**. For instance, the objective of reducing  $CO_2$  emissions and increasing climate protection led to the promotion of an expansion of the cross-border services offer (Interview Harmeling 2016; Interview Ball 2016). In general, however, the improvement of cross-border transport is strongly dependent on the availability of **financial means** (Interview Ludwig 2016; Interview Ripp 2016). Transport investments are very expensive. Therefore, the long-term financing of transport projects is challenging. This is also connected to frequent **political change**, since it is impossible to ensure the ongoing financing of investments after the elections. Therefore, investments often have a short- or medium-term perspective, which is contrary to the long-term implementation periods of transport infrastructures (Interview Balázs 2016).

The EU offers additional **financial support** for the amendment of cross-border transport. Predefined EU objectives have to be fulfilled in order to receive funding. The **concrete implementation** of the EU policies and their defined cross-border transport objectives, however, **cannot be ensured** by the EU. The implementation itself has to be conducted by stakeholders on the ground and it depends on their initiative as well as the political will (Interview Trinemeier 2016). The EU policies do not define very concrete objective because of the high variety of the challenges faced in cross-border regions (Interview Vidal 2016). Nevertheless, the EU transport objectives are not always easily implementable due to persistent pressing cross-border transport challenges that need to be met. The concrete **needs** vary from border to border, and they are often not recognised at the EU level (Interview Planungsgemeinschaft Region Trier 2016). The EU financial support for transport projects is considered to be good for their **image** to be funded by the EU (Interview Clev and H. J. Fette 2016).

In the Greater Region, the **TEN-T policy** mainly supported large-scale connection projects with a higher relevance to the **external accessibility** of the cross-border region than to internal transport. Still, these projects can be of relevance to the infrastructure and services of the cross-border region as well as their occupancy rate. Particularly during the last funding period (2007–2013), some **ETC** projects aimed at complementing the TEN-T policy and the contribution of the core network corridors by increasing the benefit for the cross-border regional, internal transport was mainly promoted by the INTERREG A projects, although a high percentage of these projects supported cross-border bicycle infrastructures for touristic purposes. More funds were spent as a result of the TEN-T policy.

According to Beck, the **financial support** of the EU can improve the **transport situation** of the Greater Region's subregions (Interview Beck 2016). Due to the ETC- and TEN-T-related funding schemes, Kurnol considers the EU influence on cross-border transport to be higher than the influence of the national levels (Interview Kurnol 2016). The policy analysis showed that the cross-border policies – which also defined concrete projects – are influenced by the domestic policies to a stronger degree than by the EU policies. Trinemeier (2016) considers that cross-border transport projects can also be efficiently implemented without EU support. In particular, INTERREG B projects would often not include a practical implementation (Interview Trinemeier 2016). Additionally, Beck (2016) believes that cross-border regions will develop pragmatic solutions without EU support if there exists a strong need for the improvement of cross-border transport. However, not all projects could be implemented without EU financial support. In these cases, the EU financial support is decisive (Interview Beck 2016; Interview Weidenhaupt 2016).

#### But can the contribution of the two EU policies be reduced to purely financial terms?

The TEN-T policy and its associated projects really seem to be focused on investment in hard infrastructures and less so on soft exchanges. The ETC policy, however, entails more. Funded cross-border infrastructure projects are implemented by a group of stakeholders from different countries and they foster a **personal exchange** across borders, which can be contrasted with most TEN-T projects. Both **cooperation and coordination** across borders are promoted (Interview Beck 2016). Additionally, the ETC projects have to contribute to broader cohesion objective. A pure contribution to the transport objective is said to be insufficient.

Due to the restricted availability of EU support and funds, the EU policies can only **complement** the domestic transport planning. The domestic administrative levels responsible for transport development need to cooperate across borders in parallel in order to develop a coordinated cross-border transport network.

The cross-border cooperation bodies of the Greater Region are said to have contributed to the coordination of transport development to a certain extent (Interview Ball 2016). The exchange involved in the 'Transport' working group of the Summit of the Greater Region is evaluated to have been interesting. However, during the last two years, it has mainly consisted of an **exchange of information**, but no concrete actions (Interview Castagne 2016). Additionally, a criticism has been offered that sometimes not all the available information was exchanged. Instead, information, for example, concerning freight transport strategies, was withheld because there remained economic competition between the subregions (ibid.). Therefore, Demortier does not recognise the direct influence of the working group on the development of cross-border transport (Interview Demortier 2016). However, Schelkmann considers the work of the 'Transport' working group of the WSAGR to be very productive (Interview Schelkmann 2016). A direct influence of the KARE on the development of cross-border transport is questioned because it is said to mainly focus on territorial development. The other working group on transport might therefore have a higher influence (Interview Demortier 2016). Instead, the working group would **pool the spatial planning opinions** of the other working groups of the Summit of the Greater Regions and then review the transport priority projects in terms of spatial development (Interview Arts 2016). In general, a high number of **cross-border documents** have been developed by the working groups, so that appears easy to lose track (Interview Hilt 2016; 2017). According to Schreiner, the success of the work conducted in these cooperation bodies strongly depends on the involved stakeholders (Interview Schreiner 2016). Other stakeholders consider that a good cooperation culture has been established in the Greater Region over the last few years. This shows that the expectations concerning the working groups are divided. Many cross-border projects consist of stakeholders that already knew each other from other cross-border committees such as the Summit of

the Greater Region. However, **no cross-border planning documents** have been developed thus far (Interview Ripp 2016). Beck believes that the coordination of transport development has improved significantly because the countries have taken into account the **effects of transport projects from neighbouring regions** (Interview Beck 2016). However, the **lack of coordination** of the **transport projects in** the different territorial units of the Greater Region is still said to be bemoaned (Interview Ball 2016). Concrete projects such as the establishment of the SDC-GR are expected to contribute to the **assimilation of the planning systems** (Interview Chlench 2016). Further, the meetings between the stakeholders in the bodies of the Greater Region should **promote learning across borders** (Interview Ball 2016).

In general, the coordination of transport across borders is not considered to be easy. Both EU-supported and other projects rely on **political commitment** (Interview Trinemeier 2016). Furthermore, **stakeholders** are required to coordinate the neighbouring countries and the implementation of the EU objectives by informing the regional and local administrative levels and facilitating cooperation across borders (Interview Schreiner 2016). **Communication** and **coordination** are very important in terms of improving cross-border transport. Sometimes, possibilities are not used because they are insufficiently well known. A coordination platform is considered to be of high added value (Interview Camps 2016; Interview Sohn 2016). The **collision of interests** at different administrative levels that share competences in the field of transport is said to hamper the implementation of EU policy objectives (Interview Sohn 2016). Furthermore, **technical barriers** are said to make it difficult to implement certain EU objective (ibid.). Besides, the **frequently changing political landscape** in the member states is said to strongly influence cross-border transport development as a long-term issue. The maintenance of ongoing political support is very important, although it is not given at all times. For instance, nationalistic parties might refuse to support cross-border transport investments (Interview Balázs 2016).

The persistent influence factors that challenge cross-border transport **cannot be solved by the EU policies and their associated funds** because they are themselves influenced by them. However, the two EU policies can **promote** European cohesion and transport **objectives**, which should be coordinated across borders, while their programmes can **fund concrete projects**. Additionally, they can contribute to the **higher visibility** of the cross-border transport **challenges** as well as **motivate** further stakeholders to cooperate in fields of shared interest. Therefore, the ETC and TEN-T policies might complement the existing cooperation between both the different cross-border bodies and member states.

To determine whether these findings can be universalised for other cross-border regions, a second case study is conducted in the next section in the German-Polish cross-border region of Brandenburg-Lubuskie.

## 6.4 Main Case Study 2: Brandenburg-Lubuskie– North Sea Baltic Corridor

After having analysed the first case study in the last section, the aim of this section is to analyse the influence of the TEN-T and ETC policy on cross-border transport system in the cross-border region Brandenburg-Lubuskie. First of all, the initial situation of the cross-border region is described, followed by a presentation of the German regional and Polish transport systems. Third, the relation of the countries' domestic and cross-border policy documents to the EU transport objectives and cross-border transport is analysed. Fourth, the formal implementation of the EU objectives is evaluated differing between the different administrative levels. Fifth, the practical policy implementation is explored by investigating the implemented EU and non-EU funded cross-border projects. At the end of the case study, the impact of the EU policies on cross-border transport in the cross-border region Brandenburg-Lubuskie is evaluated.

## 6.4.1 Initial situation

This section describes the initial situation of the cross-border region Brandenburg-Lubuskie including basic information on the cross-border regions' location, history of cooperation, statistical data, stakeholders and institutions and the cross-border transport situation. In scientific literature the initial situation is considered to be of high relevance for the EU policy implementation as the latter is said to vary in different domestic contexts. Therefore, the information from the initial situation of the two case studies is used in the later comparison as differentiating factor.

*Territorial demarcation of the cross-border region's soft space & history of cooperation* The cross-border territory of the INTERREG A Cooperation Programme Brandenburg-Lubuskie includes the whole Polish region or voivodeship Lubuskie and parts of the German region Brandenburg, namely the *Landkreise* Märkisch-Oderland, Oder-Spree and Spree-Neiße as well as the two cities Frankfurt (Oder) and Cottbus (see **Image 36**). This territorial demarcation is used in the following case study analysis in terms of analysed domestic documents and stakeholder interviews.

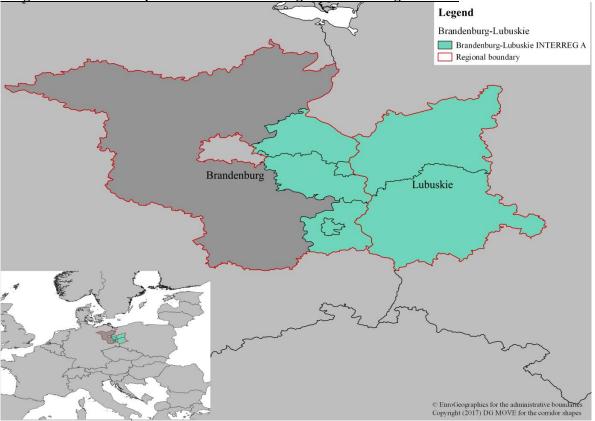


Image 36: Territorial shape of the INTERREG A region Brandenburg-Lubuskie

Source: Author, Kaiserslautern, 2017 based on Interreg Brandenburg-Polen 2014, 6; GISCO - EUROSTAT 2015.

Poland joined the EU in 2004. Germany is one of the founding members of the European Union. In 1991, a **cooperation contract** (*Vertrag zwischen der Bundesrepublik Deutschland und der Republik Polen über gute Nachbarschaft und freundschaftliche Zusammenarbeit*) between the Polish and German government was adopted which formally acknowledged the willingness to cooperate across borders. This contract is seen as necessary condition for the following first cooperation attempts in the whole German-Polish border area. Thus, the national governments of Poland and Germany have facilitated the cross-border cooperation by defining the legal conditions of cooperation (Mildenberger 2007, 2).

The border between the two countries was moved much in the past, the current border which is demarcated by the rivers Oder and Neisse is considered to be artificial. This is because the whole area became a border region only after 1945 and before belonged to the same political territory. Another

reason is the fact that the inhabitants of the territory were moved in parallel to the border movements. Many Polish inhabitants were rehoused from other parts of Poland to the new Polish territory at the new German border. Thus, the latter did not have any relationship to the local citizens across the border and needed a long time to get closer. Furthermore, as Eastern Germany became part of the EU after the German reunification, a new external border of the EU was established at the border to Poland. This led to an increase of different living and infrastructural standards between the two border regions. Since the EU accession in 2004, these differences are hoped to be minimized to facilitate the integration of the two parts into one cross-border region (ibid., 2f.).

Both regions anchored the will to cooperate across borders in domestic policy documents: the constitution of Brandenburg promotes the cooperation with Poland. In addition, the *Regional Development Strategy of Lubuskie* of 2005 defines the cooperation with Brandenburg in the INTERREG programme as a priority (Land Brandenburg 2008, 1).

The cross-border cooperation on the INTERREG territory existed before the INTERREG cooperation started: two Euroregions were established in 1993 and have promoted and supported cross-border cooperation since then (ibid., 2)(more information see below). Additionally, several twinnings of cities across borders have existed (INTERREG IIIA Brandenburg / Polen 2004, 28). The twin cities Frankfurt (Oder) - Slubice and Guben-Gubin are considered to have been decisive for the cross-border cooperation on the territory. They developed development and action programmes for the cross-border region to prepare the EU funded PHARE/CBC programme cooperation (ibid., 4) which started in 1994 in parallel to the PHARE Transborder programme. In 2000 the INTERREG programme started – financed by different funds. Since 2004 - the EU accession year of Poland – also the Polish side has been fostered by the INTERREG funds (Land Brandenburg 2008, 2). The territorial shape of the analysed INTERREG A cross-border region was based on the cooperation areas of the two Euroregions. Their territory was combined to one large cooperation space for the INTERREG III A programme (European Commission 2001a).

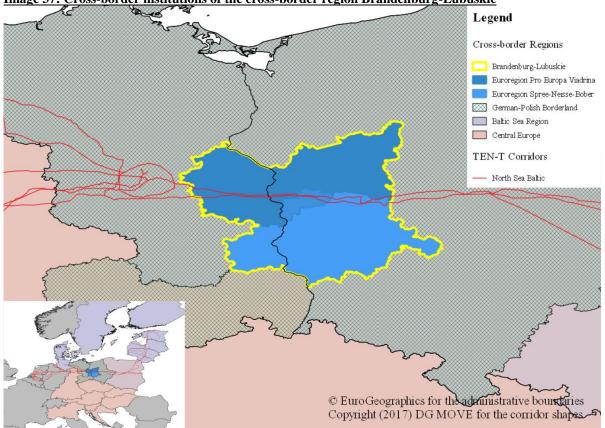
As the two Euroregions – the origins of the cooperation - were established based on municipal and regional efforts (Euroregion PRO EUROPA VIADRINA 2015d; Euroregion Spree - Neiße - Bober 1993) the cooperation in this area was established **bottom-up**. However, the INTERREG A cooperation boundary seems to be an artificial, built-up space which was developed in a **top-down** approach as no comprehensive cross-border institutions exist for that territory as can be seen in the next section.

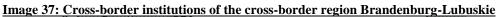
#### Cross-border institutions & new types of governance

There are several cross-border institutions which influence the cross-border cooperation between Brandenburg and Lubuskie. Several of them have a larger scale than the whole Polish-German border area, others - the Euroregions - focus their cooperation on subspaces. No institution comprises the territory of the cross-border region as defined by the INTERREG A programme. The two Euroregions divide the cross-border regions in two territorial parts. A small area belongs to both Euroregions (see **Image 37**).

The **Euroregion Spree-Neiße-Bober** is a registered society (e.V.) which consists of several German municipalities and private economic and social partners. The Polish part is a municipal association consisting of Polish municipalities. The cooperation was founded in 1993. The cooperation's territory includes the German *Kreise* on NUTS 3 level which have a relation to the national border and the voivodeship Lubuskie (NUTS 2 level) in Poland. Thus, the Polish part is much larger than the involved German territory. The secretariats are located in the German-Polish cross-border city Guben-Gubin on the respective side of the border. The secretariats are the contact points for stakeholders from their respective countries and are said to frequently communicate with each other. The aim of the cooperation is to offer a platform for the development of cross-border project ideas and the facilitation of contacts

among relevant partners. Furthermore, it shall integrate politicians and the regional administrations of both sides of the border. The German and Polish parts of the Euroregion developed a common development and action concept (*Entwicklungs- und Handlungskonzept*) which is valid for a funding period of seven years. Additionally, an integrated transport concept was established in 2008 by the Euroregion which defines missing transport links (Interview Markus 2016).





Source: Author, Kaiserslautern, 2017, based on GISCO - EUROSTAT 2015; European Commission, DG Move, and TENtec Information System n.y.; Bundesministerium für Verkehr und digitale Infrastruktur (BMVI) and Ministerstwo Rozwoju Polska n.y.; Euroregion PRO EUROPA VIADRINA n.y.; Euroregion Spree-Neiße-Bober n.y.c; Interreg Brandenburg-Polen 2014.

The Euroregion consists of several working groups and shall facilitate the development of projects. The cooperation area contains some twinning of cities like Zielona Góra (PL) and Cottbus (DE) as well as Guben (DE) – Gubin (PL). It fosters bottom-up cross-border cooperation. The Euroregion has a seat in the German-Polish Governmental Commission (*Deutsch-Polnische Regierungskommission*) and is involved in the INTERREG A project management support. Additionally, it has a voting right in the decision on the funding of INTERREG projects. Besides that, it assists project partners to find further partners on the other side of the border. The cooperation is said to strongly rely on stakeholders from the civil society. A high interest and support from the German civil society in the border regions was said to be perceived (Interview Markus 2016).

The **Euroregion Pro Europa Viadrina** was founded in 1993 as well (Euroregion PRO EUROPA VIADRINA 2015d). It consists of two German *Kreise* and the city Frankfurt/Oder situated in Brandenburg and five Polish counties situated in Lubuskie. The cross-border region is crossed by the Oder river (Euroregion PRO EUROPA VIADRINA 2015c). As in the Euroregion Spree-Neisse-Bober, the German part of this Euroregion is organized in a registered society and the Polish part is a municipal association consisting of Polish municipalities (Euroregion PRO EUROPA VIADRINA 2015b).The Euroregion develops multiannual development and action concepts (*Entwicklungs- und* 

Handlungskonzepte) in which it defines the aims and guidelines of cooperation. Among others, the transport infrastructure in the vicinity of the border shall be improved (Euroregion PRO EUROPA VIADRINA 2015d). Furthermore, it has initiated an analysis of the transport network in the German – Polish border region on whose basis needs for action were developed. This document is considered as an important basis for the improvement of cross-border transport. Besides that, the Euroregion is said to have promoted the establishment of the North Sea Baltic Corridor together with Dutch partners because both felt the need to expand the cross-border infrastructure (Interview Schiwietz 2016). Additionally, common events are organized and the contacts across border are to be improved in different fields of economic, social and cultural nature. The Euroregion is supported financially by Brandenburg and Lubuskie as well as the INTERREG A programme Brandenburg-Lubuskie (Euroregion PRO EUROPA VIADRINA 2015d). Several twinnings of cities or Kreise exist within the Euroregion (Euroregion PRO EUROPA VIADRINA 2015c). There is said to be strong cross-border cooperation of the civil society in the form of clubs and organizations across the national border. The accession of Poland to the EU is said to have removed further barriers of cooperation in daily life as the border controls were abolished. Due to cooperation and exchanges, reservations regarding the residents on the opposite side of the border are said to have been reduced (ibid.).

The following described institutions comprise a larger cooperation space than the INTERREG A area (see **Image 37**).

The German-Polish Governmental Commission for Regional and Border Cooperation (short: German-Polish Governmental Commission) (*Deutsch-Polnische Regierungskommission für regionale und grenznahe Zusammenarbeit*) was established in 1991 (Deutsch-Polnisches Raumordnungsportal n.y.). It consists of several thematic committees (Interview Markus 2016): a committee on border cooperation (*grenznahe Zusammenarbeit*), one on interregional cooperation, one on spatial planning and one on cooperation in education. Besides it has a working group on disaster management (Interview Schiwietz 2016). The committee on border cooperation has treated cross-border transport-related topics, among others (Interview Kray 2016). The cooperation in this commission is constitutionally legitimized (Interview Sauer 2016).

Besides that, there is the **Oder Partnership** (Interview Klauza 2016) (*Oderpartnerschaft*) which is an informal cooperation network between the four German regions (*Länder*) and four Polish voivodeships which are located next to the national border between Germany and Poland (Interview Dill 2016; Interview Kray 2016). Additionally, the cities Wrocław, Poznan, Szczecin, Gorzów and Zielona Góra are involved (Deutsch-Polnisches Raumordnungsportal n.y. (B)). It was established in 2006 (ibid.). The Oder river is seen as connecting element of the two countries. The aim of cooperation is to develop an effective regional network which connects the regions on both sides of the Oder river in a political and infrastructural dimension and to regularly exchange on the state of affairs of cross-border cooperation. Additionally, cross-border projects are to be initiated which contribute to a prosperous economic zone across borders (Verkehrsverbund Berlin Brandenburg 2014, 3). The partnership entails a committee on transport (*Runder Tisch Verkehr*) (Interview Kray 2016). Besides that, science and research, culture, spatial planning, health, tourism as well as energy engineering are further potential focus areas (Senatsverwaltung für Wirtschaft, Energie und Betriebe Berlin n.y.).

The German Federal Foreign Office provides a special **Coordinator for the German-Polish Cooperation** – currently the Minister-President of Brandenburg. In Poland, a State Secretary of the Polish Ministry of the Interior has fulfilled the Polish coordinator's tasks since 2016. The coordinators shall strengthen the cooperation between the two countries by increasing the mutual trust and understanding between the governments. Furthermore, they shall develop proposals for political coordination (Federal Foreign Office Germany 2016).

The above described cross-border cooperation bodies illustrate a **relatively high degree** of **cooperation** between the two countries Germany and Poland. However, most of them concern the whole German-Polish borderland. The two smaller Euroregions seem to be of high relevance for the cross-border region. The cross-border region itself, however, did not establish any further institutions which concern the whole territory besides the INTERREG secretariat. Thus, the degree of **institutionalisation** in this cross-border region is very low.

Besides the above described cooperation bodies, the Brandenburg-Lubuskie cross-border region is located within the INTERREG B cooperation areas Central Europe and Baltic Sea Region which facilitate cooperation in a larger, transnational scale.

The cooperation area of the **Central Europe** programme comprises the countries Austria, the Czech Republic, Croatia, Hungary, Poland, Slovakia, Slovenia as well as parts of Germany and Italy (Interreg Central Europe n.y.f). The cooperation was started just in 2007. Therefore, it is said to be difficult to systematically evaluate the programme's influence in the long-term perspective. Such an evaluation is to be started soon. Before the so-called CADSES-space existed out of which the Central Europe programme was developed. Since 2007, the INTERREG B Secretariat is situated in Vienna (Interview Diehl 2016).

The **Baltic Sea Region** involves the eight EU member states Denmark, Sweden, Finland, Estonia, Latvia, Lithuania and parts of Poland and Germany. Furthermore, the three partner countries Belarus, Norway and parts of Russia belong to the cooperation area (Interreg Baltic Sea Region n.y.b). The joint technical secretariat of the programme is located in two places: Rostock (DE) and Riga (LV) (Interreg Baltic Sea Region n.y.a). In 2009 the territory of the Baltic Sea Region, belonging to the EU, became the first EU macro-region for which a strategy (**EU Strategy for the Baltic Sea Region** (EUSBSR)) was developed by the European Commission and the involved member states (Nordregio n.y.).

The Brandenburg-Lubuskie cross-border region is crossed from East to West by the **North Sea Baltic Corridor** which links the Baltic Sea over main land with the North Sea. It leads from the Baltic Sea port of Finland, Estonia, Latvia and Lithuania via Poland to the North Sea ports of Germany, the Netherlands and Belgium (European Commission and DG Move 2017d).

The influences of the two INTERREG B cooperation areas and the TEN-T corridors and their funded projects on the cross-border region will be analysed in the course of this case study.

#### Structural Analysis

The analysed statistical data refers to the boundaries of the cross-border region - if available - and domestic data of the two regions Brandenburg and Lubuskie.

#### Territorial structure

The cross-border region Brandenburg-Lubuskie comprises a territory of 20.341km<sup>2</sup>. As stated above, the Polish part is larger (Ministerium der Justiz und für Europa und Verbraucherschutz des Landes Brandenburg 2015, 6). The national border between the two countries is demarcated by natural barriers: the rivers Oder and Neisse. The **polycentrically** organized territory is **sparsely populated** (84 inhabitants per km<sup>2</sup> on average (Land Brandenburg 2008, 10)). Besides the four biggest cities Gorzów Wielkipolskie, Zielona Góra, Cottbus and Frankfurt (Oder) the cross-border region suffers strong outmigration – particularly on the German side in the areas located farther away from Berlin (Ministerium der Justiz und für Europa und Verbraucherschutz des Landes Brandenburg 2015, 8). As mentioned above, the cross-border region contains two **border-cities** which are located directly at the border: Frankfurt(Oder) - Slubice and Guben - Gubin (INTERREG IIIA Brandenburg / Polen 2004, 4).

After the EU accession of Poland in 2004, the border controls were abolished in the end of 2007 between the two parts of the cross-border regions. At that time, Poland officially joined the Schengen Agreement (Euroregion PRO EUROPA VIADRINA 2015c; Bundeszentrale für politische Bildung 2011).

## Demographic situation

In 2012 1.68 million people lived in the cooperation area. However, because of the out-migration of the younger age-groups and a negative natural population change, the number of inhabitants is considered to shrink in the future more than on the respective national averages - although the population of Europe is expected to grow. The percentage of the age-group 65+ is expected to grow (Ministerium der Justiz und für Europa und Verbraucherschutz des Landes Brandenburg 2015, 8f.).

## Economic situation

The economic performance of both parts of the cross-border region is rather low. Between 2005 and 2015 the **GDP** per capita of Brandenburg and Lubuskie was below the national averages although it strongly grew in this time period. The GDP per capita in Lubuskie of 2015 (9,443€) is much lower than the GDP per capita in Brandenburg (26,626€). The latter is 2.8 times higher. The common GDP produced in Brandenburg and Lubuskie together amounts to 21,630 million € in 2015 with a GDP per capita of 3,465€ (EUROSTAT n.y.a, n.y.b, n.y.d).

The strongly **aging population** is considered to have a negative influence on the amount of potential labour force. A skills shortage - in Brandenburg and Lubuskie was reported in 2011 whereas in other sectors of Lubuskie the offer was higher than the demand (Ministerium der Justiz und für Europa und Verbraucherschutz des Landes Brandenburg 2015, 9).

Also the **unemployment** rate was higher than the national average in both border regions: in 2012 10.2% of the population in Brandenburg and 15.9% of the population in Lubuskie were unemployed (ibid., 8).

The available household income between the two countries varies to a strong degree. Whereas in 2014 in Brandenburg the average available household income amounted to  $20,200 \notin$ , only  $4,300 \notin$  were available in Lubuskie (EUROSTAT n.y.b, n.y.a). This might be a high incentive for Polish citizens to work in Germany.

Unfortunately, so far, no concrete **cross-border commuter** data has been collected in the cross-border region (Interview Schiwietz 2016) which analyses the concrete place of origin of the commuter flows. 5% of Brandenburg's employees come from abroad: 36,006 foreign employees worked in Brandenburg in June 2016. The majority of them (51%) is of Polish origin (see Figure 89).

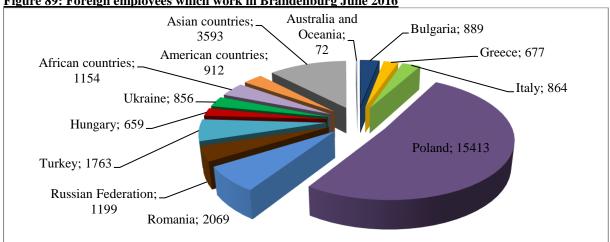


Figure 89: Foreign employees which work in Brandenburg June 2016

Source: Author, Kaiserslauterm, 2017, based on Amt für Statistik Berlin-Brandenburg 2017.

7,460 of the foreign employees live outside Germany and commute to Brandenburg. Since the complete opening of the European job market for Poland in 2011, the numbers of cross-border commuters in the German-Polish border area are said to have increased (Departamencie Infrastruktury i Komunikacji Urząd Marszałkowski Województwa Lubuskiego 2015, 139). According to Ullrich, the southern part of the cross-border region does not show many cross-border interdependencies and cross-border transport flows. Only the larger cities outside the cross-border region like Wrocław are said to be interesting for the German citizens (Interview Ullrich 2016). Generally, there is said to be disequilibrium in the cross-border flows between Brandenburg and Lubuskie. **More Polish citizens travelled to Germany than Germans to Poland** (Interview Neumann 2016; Interview Ullrich 2016). This might be partially related to the language skills. Less German border inhabitants have a good knowledge of Polish than vice versa (Interview Ullrich 2016). However, according to interviewed stakeholders it is unclear how many Germans work in Poland. There are also said to be some Polish citizens who live in Germany but still work in Poland. In addition, to commuting because of work, there is said to be shopping and leisure tourism across the border within the *Euroregion Spree-Neisse-Bober* (Interview Markus 2016).

#### Status quo of the cross-border transport system

This section describes the status quo of cross-border transport infrastructures and services in the crossborder region Brandenburg-Lubuskie. It is based on information of the later analysed policy documents and elite interviews.

Image 38: Impressions of cross-border transport in the Brandenburg-Lubuskie cross-border region



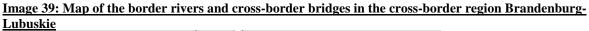
**Image explanation** from top left to bottom right: bridge between Küstrin (DE) and Kostrzyn (PL) – motorway between Frankfurt (Oder) (DE) and Shubice (PL) – Forst (DE): bridge to Poland – Forst (DE): destroyed former bridge to Poland – bridge between Gubin (PL) and Guben (DE) – bridge between Frankfurt (Oder) (DE) and Shubice (PL) – Frankfurt (Oder) (DE): railway bridge to Poland – Eisenhüttenstadt (DE): destroyed former bridge to Poland – railway bridge between Küstrin (DE) and Kostrzyn (PL)

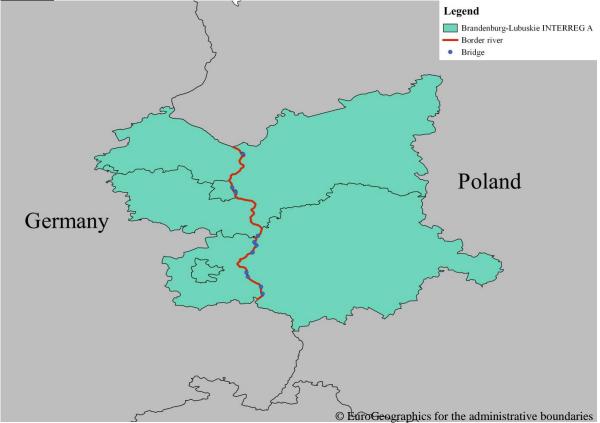
Source: Author, Kaiserslauterm, 2017.

## Cross-border infrastructures

The road transport in Lubuskie is said to have increased on the international connections since the border crossings were facilitated on the European roads **E30** (between Berlin, Frankfurt/Oder and Poznan) and **E36** (between Berlin, Lübben, Cottbus, Forst, Żary and Żagań). Between 2012 and 2022 an increase of cross-border road transport of 1.25% is expected, which is higher than the regional road transport growth (Sejmiku Województwa Lubuskiego 2012, 136). Besides that, strong road transport flows were reported between Zielona Góra via Swiecko to Frankfurt/Oder via the roads **32** and **29** (Zarządu Województwa Lubuskiego 2016, 30). Existing **strong freight transport** flows can be explained with the division of work in different countries (Interview Neumann 2016).

The cross-border transport, however, is said to be strongly hampered because of the **border rivers** combined with the low number of seven road bridges and four rail bridges at the 200 km long border (Ministerium der Justiz und für Europa und Verbraucherschutz des Landes Brandenburg 2015, 10). In 2000, an agreement of the Polish and German government was made on the establishment and maintenance of **cross-border** road **bridges** in Frankfurt/Oder. A similar agreement was achieved in 2008, this time it concerned cross-border rail bridges for national connections (Sejmiku Województwa Lubuskiego 2012, 24f.). **Image 39** shows the location of the available bridges.





Source: Author, Kaiserslautern, 2017, based on GISCO - EUROSTAT 2015; OpenStreetMap - Deutschland n.y.; Interview Schiwietz 2016.

The **road** accessibility of the cross-border region is said to have been improved in the last years because of strong investments in the Polish motorways (Ministerium der Justiz und für Europa und Verbraucherschutz des Landes Brandenburg 2015, 10). As stated above, the cross-border region is crossed by the **North Sea Baltic Corridor** which connects Berlin to Warsaw. The crossing is considered to be of added value for Lubuskie (Zarządu Województwa Lubuskiego 2015, 95f.). Still, it is feared that the cross-border region might suffer from the strong transit flows on the TEN-T axes without benefitting

from a better accessibility if it was not efficiently connected to it (Ministerium der Justiz und für Europa und Verbraucherschutz des Landes Brandenburg 2015, 10).

The cross-border road transport connections are said to be broadly developed. Still bottlenecks existed on the DK22 between Küstrin-Kietz and Kostrzyn and further regional roads across borders (Zarządu Województwa Lubuskiego 2015, 95f.).

Cross-border **rail** transport infrastructures and services are said to strongly need to be enhanced to make rail transport more attractive (Ministerium der Justiz und für Europa und Verbraucherschutz des Landes Brandenburg 2015, 10). The international TEN-T rail track between **Berlin and Warsaw** and the section between **Frankfurt (Oder) and Rzepin**, however, are considered to be in a good shape as several renovations have been conducted since 1994 and the trains can be run with 160 km per hour (Departamencie Infrastruktury i Komunikacji Urząd Marszałkowski Województwa Lubuskiego 2015, 56). Also the train station in **Slubice** was expanded which is accessed by regional trains (ibid., 56). The importance of the rail track section between **Tuplice and Forst** was reported to have been decreased for rail freight transport. Also for passenger transport this track has been used only for one inter-city train between Hamburg and Wrocław. As the Polish part of this track has not been modernized so far, the connection is said not to be attractive because of a low travel speed (ibid., 146).

The *Transport development programme of the region Lubuskie* considers it to be a chance to be so close to the German developed transport infrastructure but at the same it is feared that the introduction of the German **toll** will hamper or downgrade cross-border transport (Zarządu Województwa Lubuskiego 2016, 95f.).

#### Public transport service connections across the border

Many Polish cross-border commuters commute between Kostrzyn and other Polish places and Berlin three to six days per week. They often go by car to the first German stop of the train connection (Küstrin-Kiez) and take the train from there as not enough parking spaces were offered in Kostrzyn (Departamencie Infrastruktury i Komunikacji Urząd Marszałkowski Województwa Lubuskiego 2015, 142f.). The Transport Development Programme of the region Lubuskie presents a high passenger load even between Kostrzyn and Küstrin-Kietz and further to Berlin (Zarządu Województwa Lubuskiego 2016, 46).

The train between **Berlin and Wrocław** (*Kulturzug*) which has been offered on the weekends (one pair of trains per day) – mainly for touristic reasons - was used by up to 1.000 passengers in 2016 depending on the weather (Interview Dill 2016).

There is one rail connection between **Berlin-Lichtenberg** and **Kostrzyn** per hour. From Kostrzyn eight rail pairs offer a connection to Gorzow. In 2015 there were 17 German pairs of trains from Berlin (DE) to Kostrzyn (PL) per day and nine Polish pairs of trains between Kostrzyn and Krzyż as well as two between Kostrzyn and Poznan. Direct cross-border connections between Berlin and Krzyż are said to be missing and the travel times were not coordinated well, as they followed different national principles. Besides that, there is a rail service connection between **Frankfurt/Oder (DE)**, **Rzepin and Zielona Gora (PL)** with single trains (ibid.) and a connection between **Frankfurt/Oder (DE)**, **Rzepin and Poznan (PL)**. The latter allows to switch to a connection to Cottbus and Berlin (Departamencie Infrastruktury i Komunikacji Urząd Marszałkowski Województwa Lubuskiego 2015, 144). Besides that, there are no direct regional cross-border rail connections between Frankfurt (Oder) – Słubice – Rzepin – Zbąszynek and Poznań (ibid., 119). The train station in Rzepin can be accessed also with the German train voltage system which facilitates the cross-border connections to Frankfurt (ibid., 145). From **Forst (DE**) there are two train pairs to **Żary** and **Żagań (PL**) which are not offered frequently. The VBB is said to aim at expanding the offer (Interview Dill 2016).

Because of a **lack of national funding**, the rail connections from Lubuskie to Frankfurt/Oder and between Żagań, Żary, Tuplice and Forst (Lausitz) could not be supported on a high priority as the internal Polish connections are to be improved first. The train offer of the latter connection was said to even have been reduced since 2011 (Departamencie Infrastruktury i Komunikacji Urząd Marszałkowski Województwa Lubuskiego 2015, 116,132). Also the regional trains from **Poznan or Zbąszynek to Frankfurt (Oder)** are not offered anymore (ibid., 116). Instead there are five direct Eurocity connections between **Berlin via Frankfurt/Oder (DE)**, **Rzepin, Swiebodzin, and Zbąszynek to Poznan (PL)** per day (Interview Sauer 2016). The intermediate stops of this connection in Lubuskie were minimized (Departamencie Infrastruktury i Komunikacji Urząd Marszałkowski Województwa Lubuskiego 2015, 116).

In 2016 the average **passenger usage** of three cross-border rail connections on week days amounted to 1,000 users between Berlin (DE) and Kostrzyn (PL), 1,000 between Cottbus and Forst (DE) at the Polish border. However, solely 10 passengers of this train connection cross the border and travel to Poland. It is considered that the demand is so low because of the non-attractive offer. The connection between Frankfurt/Oder and Zielona Góra is used by approximately 20 persons per day (Interview Dill 2016).

There is a special cross-border **tariff offer** for passengers which live up to 120km from the German border which shall make the cross-border rail transport more attractive (Departamencie Infrastruktury i Komunikacji Urząd Marszałkowski Województwa Lubuskiego 2015, 145). It is based on a cooperation of the two regional public train service providers. It shall improve the touristic exchange between the two regions and Berlin. However, the ticket prices for the short cross-border connection between Kostrzyn and Küstrin-Kiez are said to be very high compared to the regular **Polish ticket prices** (ibid., 142f.). This is also said to be true for the fast rail connection between Berlin, Frankfurt/Oder (DE), Rzepin and Zbąszynek and Warsaw (PL). The latter connection is therefore said not to be used for cross-border regional traffic (ibid., 116).

Cross-border rail transport is said to be challenged further by the different national **train voltages** which hamper smooth cross-border rail transport. The trains of cross-border connections need to be adapted in Frankfurt/Oder or the trains have to be equipped with dual drive systems (ibid., 56).

Also the **local public transport** across borders to **connect rail stations** needed to be improved (Ministerium der Justiz und für Europa und Verbraucherschutz des Landes Brandenburg 2015, 10). There is one cross-border **bus** between **Frankfurt/Oder and Slubice** that connects the cross-border city (Interview Kray 2016). Besides that, there are several private bus companies which offer bus connections from Poland to Berlin (Interview Neumann 2016; Interview Kray 2016).

As the case study methodology includes interviews with stakeholders, from the different administrative levels from Poland and Germany as well as stakeholders from cross-border institutions, the interviewed stakeholders' opinions on the status quo of the cross-border transport system of the Brandenburg-Lubuskie cross-border region are presented in the following to complement the description of the status quo. The opinions are grouped according to the interviewed stakeholders' job location (country). The opinions of stakeholders working in cross-border institutions are grouped in an additional category. Thereby differences in the perceptions shall be detected.

#### <u>Poland</u>

According to Brol the transport system of the cross-border region lacks a good connection to the TEN-T. Furthermore, the rivers Oder and Neisse are considered to be challenging **natural borders** for crossborder transport. Transport investments in road and rail **infrastructures**, including bridges are said to be necessary to reduce the travel times and increase the comfort. Although some bridges were reconstructed in the last 20 years, the number of bridges across the Oder and Neisse river is considered

to be too low (Interview Brol 2016; Interview Nowicki 2016). The Polish transport infrastructures are said to have been improved in the last years thanks to the European financial support, still the infrastructures are considered to be less advanced than those in Brandenburg. Some motorways are currently being established, other roads and railways are said to need to be modernized. However, the main motorways across the border are said to exist. The railway infrastructure is said to be in a bad condition on the Polish side (Interview Nowicki 2016).

Additionally, **transport services** across-borders, e.g. between Berlin (DE) and Zielona Góra (PL) needed to be improved by accelerating the speed (Interview Brol 2016). The number of cross-border rail connections is said to be too low (Interview Klauza 2016). Public transport is said to be hampered because of different **technical systems** and national regulations. Not all trains can be navigated on the other side of the border. Furthermore, **funds** are said to be lacking for public transport across the border (Interview Nowicki 2016).

#### <u>Germany</u>

The transport system is considered to be improvable (Interview Sauer 2016). Neumann even describes it to be not satisfactory in terms of infrastructures and services (Interview Neumann 2016). Sauer considers some transport connections to be good compared to other cross-border regions in the EU (Interview Sauer 2016).

Because of the low and decreasing population density of Lubuskie and Brandenburg and a low centralised demand it would be difficult to offer comprehensive rail connections in the cross-border region. Therefore there are few frequent public transport connections across the border (Interview Dill 2016; Interview Sauer 2016; Interview Ullrich 2016). Kray criticizes the low public transport offer across the border (Interview Kray 2016). The connection between Frankfurt/Oder (DE) - Rzepin -Zielona Gora (PL) is said not be based on a regular service (*Taktverkehr*) instead single train pairs are offered. There is only one direct connection offered by the VBB (Interview Dill 2016). The train connection between Berlin via Frankfurt/Oder (DE) to Poznan (PL) is considered to be fast and in a good shape (Interview Kray 2016; Interview Sauer 2016). It is criticized that there has been no direct connection between Berlin and Gorzow so far. Trains need to be changed in Kostrzyn (Interview Dill 2016; Interview Kray 2016). However a new direct connection in the morning and evening between Gorzow and Berlin is planned to be offered for commuters (Interview Dill 2016). Between Guben and Zielona Góra there is no public transport offer despite existing rail infrastructures because of a missing transport demand (Interview Dill 2016; Interview Ullrich 2016). Between Frankfurt/Oder and Zielona Góra there are not enough vehicles which can operate on both sides of the border on the track (Interview Dill 2016). In general, the border is said to hamper good cross-border transport services (Interview Neumann 2016).

According to Kurnol, the main bottlenecks in the cross-border **transport infrastructure** between Brandenburg and Lubuskie concerned rail transport (Interview Kurnol 2016). The rail infrastructure needed to be expanded in some cases (Interview Kray 2016). Among others, the rail bridge between Küstrin and Kostrzyn needed to be renovated in the next years and the whole track is said to need to be electrified and expanded to two tracks in the future. Besides that, the rail track between Cottbus and Forst (DE) to Legnica (PL) also needed to be electrified in the future, this is said to be particularly relevant for long distance trains, for instance between Forst (DE) and Legnica (PL). So far, it has not to be clear when the cross-border tracks will be modernized (Interview Dill 2016). The poor rail infrastructure between Berlin and Wrocław is criticized by Kray, Sauer and Ullrich. The rail infrastructure from Frankfurt/Oder to Zielona Gora, however, is said to be in a good shape (ibid.).

The basic road infrastructure is considered to be in place (Interview Kurnol 2016). This is acknowledged by Kray and Sauer. The road connections are said to be relatively good. The cross-border region would

be linked by several bridges for motorways, regional roads and pedestrian as well as bicycle transport (Interview Kray 2016). The citizens of Eisenhüttenstadt (DE) are said not to be interested into a bridge across the Oder river to Poland. Still a road to the river was integrated into the German national BVWP because of economic and political interests (Interview Kramer 2016). A direct bridge from the city centre of Forst (DE) across the Oder river to the Polish side is missing, although there had been one before the war. It is said to have been a conscious decision of the citizens of Forst to establish the bridge outside the city centre. It was feared that a direct connection led to a competition with the inner city retailers from the Polish side (Interview Ullrich 2016). According to Sauer only smaller road bottlenecks existed at regional level (Interview Sauer 2016). Neumann criticizes the load limitations of some cross-border bridges (Interview Neumann 2016).

The motorway A 12 between Berlin and Frankfurt/Oder and the Polish border is considered to need to be expanded to six tracks because of strong and growing freight transport flows between Germany and Poland to prevent future congestions (Interview Neumann 2016; Interview Schiwietz 2016). In the case of accident, there are said to be strong congestions on that motorway (Interview Kramer 2016).

#### Cross-border cooperations

Several transport investments in the German Polish cross-border region have been made. Therefore, Schiwietz considers the status quo to be ok. No more border crossings needed to be established. The development of cross-border ferries is said to be discussed. However, when looking into details, there are some potential improvements to be made (Interview Schiwietz 2016). The status quo of the German and Polish transport network within the border region is considered to be distinct. The Polish regional and local road infrastructure is said to need to catch up whereas the German road network would be fully developed (Interview Markus 2016).

The Polish local **roads** are considered to be dangerous to use as a cyclist. Bicycle paths needed to be established and expanded (Interview Schiwietz 2016). Furthermore, the motorway from Forst (DE) to Wrocław is said to need to be modernized - the tracks of the reverse direction have already been expanded. Besides that, the road infrastructure needed to be optimized because of the grown freight transport. Kostrzyn is said not to be efficiently linked to the motorway despite strong freight transport flows to the city. Therefore there is a strong congestion risk and the city Kostrzyn and Slubice are said to be burdened with transit traffic (ibid.). As already addressed by Neumann, also Schiwietz mentioned the bridge between Kostrzyn (PL) and Küstrin (DE) which is restricted to a maximum weight of 7.5 tons. This restriction prevents the crossing of touristic coaches. Instead a detour needed to be taken across Frankfurt/Oder. Therefore, it is envisaged to expand that cross-border bridge in Kostrzyn. However, it is feared that this will lead to a relocation of the strong freight transport from the Polish side to Germany and the need to expand the German national road. So far, no investments have been planned (ibid.). Moreover, the touristic cross-border hiking and bicycle routes are said to need to be coordinated and signed better as well as commonly put on the market (ibid.).

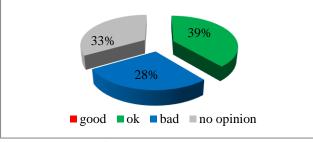
The attractiveness of the **railways** should be increased for freight but also passenger transport. Rail connections across the border should be expanded and enhanced. Further stops are proposed to be added in places with high numbers of cross-border commuters. Additionally, the accessibility of the intermodal transport terminal in Frankfurt/Oder should be enhanced to increase its utilization ratio. Furthermore, the *Ostbahn* between Berlin (DE) and Gorzów (PL) should be expanded with a second track (ibid.). Besides the passenger rail connection from Brandenburg to Lubuskie via Frankfurt/Oder no other direct cross-border rail connections exist in the other parts of the border region. The rail connection between Berlin and Wrocław was ceased in 2014. This is said to have further reduced the German-Polish cross-border rail connections and should be introduced again (Interview Markus 2016). The bus connection between Slubice and Frankfurt/Oder is said to be strongly frequented (Interview Schiwietz 2016). There

are no bus connections within the Euroregion Spree-Neisse-Bober across the border. This is due to a missing occupancy rate in the past: the offer at that time was considered to be too slow and not direct enough to be attractive for cross-border commuters (Interview Markus 2016).

## <u>Comparison of the countries and cross-border institutions' evaluation of the status quo of cross-border transport</u>

The majority of the stakeholders interviewed evaluated the cross-border transport within the crossborder region to be ok. However, also a high number evaluated it not to be satisfactory. None of them considered it to be in a good status (see **Figure 90**). Additionally, it was often stated that the transport system on the Polish side of the border would be lacking behind the German one and needed to catch up. In general, most challenges existed in rail transport and public transport services across the border.

Figure 90: Evaluation of the status quo of cross-border transport in the Brandenburg-Lubuskie crossborder region by the interviewed stakeholders (n=18)



Source: Author, Kaiserslautern, 2017.

The natural barrier between the two countries in the form of the two border rivers is seen as a challenge. Additionally, financial obstacles were addressed in terms of investments and ticket prices and the differences which existed between the two countries and cross-border institutions in this respect. In general, the Polish and German interviewed stakeholders have a similar opinion concerning the status quo. Because of a higher number of interviewed German stakeholders the German evaluation of the status quo was more detailed. However, all address the need of improvement.

# Cross-border interest groups and institutions of the Brandenburg-Lubuskie cross-border region in the field of transport

Transport is considered to be an important topic in the cross-border cooperation between Poland and Germany (Interview Kray 2016). As expected by the theory of *neo-functionalism*, European integration led to the arising of transnational interest groups in the German-Polish cross-border region. All four were established at the transnational level, including the whole German-Polish borderland and thus, a larger space than the INTERREG A area. Their influence on the EU policy implementation process respectively the cross-border transport practice will be explored later in this chapter.

The **German-Polish Spatial Planning Committee** (*Deutsch-Polnischer Raumordnungsausschuss*) is described as a platform of support for cross-border cooperation and information exchange (Interview Klauza 2016). Political decisions are to be prepared (Deutsch-Polnisches Raumordnungsportal n.y.). The committee was established in 1991 on the basis of the German-Polish Treaty of Good Neighbourship (*Deutsch-Polnischer Nachbarschaftsvertrag*) (Interview Sauer 2016) and arose out of the Committee of Border Cooperation of the German Polish Governmental Commission (Interview Schiwietz 2016). It is steered by a combined German and Polish chair. Between 2014 and 2016 a Common Vision Paper of the German-Polish cross-border region (*Gemeinsames Zukunftskonzept 2030 Deutschland-Polen*) was developed. This paper was officially adopted by the German-Polish Governmental Commission in the end of 2016. Among others, it contains development guidelines on the expansion of cross-border transport (Interview Kray 2016). Additionally, the committee provides a web page with information on the committee and its aims (<u>http://www.kooperation-ohne-</u>

<u>grenzen.de/de/</u>) (Interview Schiwietz 2016). The German subregional planning levels are not involved into this committee (Interview Ullrich 2016; Interview Kramer 2016).

The **working group 'Transport'** of the German-Polish Governmental Commission was established in 2015 and involves the German and Polish railways, representatives of the regional transport administrations and the German national transport ministry. It aims at coordinating the development of the different cross-border transport connections (Interview Kray 2016; Interview Sauer 2016). Thereby it focuses on infrastructures and services (Interview Dill 2016) and develops political recommendations for the cross-border transport development (Interview Kray 2016). Regular expert meetings are said to take place on investments in cross-border road connections between Germany and Poland and the coordination of the implementation processes. These meetings are said to focus mainly on the establishment of cross-border bridges (Interview Neumann 2016).

The **round table**, **Transport**<sup>•</sup> (*Runder Tisch Verkehr*) is a common initiative of the municipalities and regions of the Oder-Partnership. The *Verkehrsverbund Berlin -Brandenburg* (VBB) has supported the coordination of the members since 2011. The committee meets once or twice a year to coordinate future rail transport actions. Furthermore, the round table shall be used as a platform for exchange of information and a development of contacts across the border (Verkehrsverbund Berlin Brandenburg 2014, 3; Interview Dill 2016; Interview Neumann 2016). Additionally, timetables and vehicles are coordinated. However, the decisions about transport investments are taken by the national levels (Interview Sauer 2016).

The **German-Polish Railway Summit** (*Deutsch-Polnischer Bahngipfel*) involves the German and Polish railway providers as well as the coordinators of the Polish-German cooperation from both countries. It is negotiated about the future development of the rail offer between the two countries to coordinate the investments (Interview Dill 2016; Interview Sauer 2016). These summits have been initiated by the Minister-President of Brandenburg who is the current coordinator for the German-Polish Cooperation (Interview Sauer 2016).

The different committees are said to have worked together on the development of the Common Vision Paper 2030 (ibid.). The latter document and further policy documents as well as concrete projects developed in these interest groups are presented in **chapter 6.4.3** and **6.4.5**.

The next chapter presents the functioning of the German and Polish transport systems.

## 6.4.2 Functioning of the involved domestic transport systems

This chapter complements the description of the initial situation of the member states of the last chapter by analysing the member states' macro-political structure in the field of transport. This includes a description of transport competences and tasks of the different administrative levels, the planning tolls as well as actors involved in the transport policy making of the two member states. Additionally, Poland's administrative structure is described shortly. At the end of the chapter the distribution of transport competences between the two countries is compared in order to determine potential challenges in the coordination of the transport development across borders.

The two countries involved in the Brandenburg-Lubuskie cross-border region have belonged to the European Union since a different time. Germany is an 'old' and founding member state of the European Union whereas Poland joined the EU just in 2004. Therefore, the degree of European integration of Poland might be lower than in Germany, which might hamper the cooperation across borders to a certain degree. Furthermore, differences still exist in the field of spatial and transport planning as it remained a national competence. These potentially hamper a smooth coordination of the transport development across borders and are to be detected in this chapter. Thereby the chapter provides an overview of the two countries' transport planning approaches – including the existing policies which steer transport –

and develops a knowledge basis for stakeholders interested in a better coordination of transport development across borders in order to contact the responsible levels and better understand the processes which take place on the other side of the borders.

#### Germany

The general description on the functioning of the German transport system and state hierarchy can be found in **chapter 6.3**. This section focuses on the specific situation in the German *Land* Brandenburg and its lower levels which are involved in the cooperation area of the cross-border region Brandenburg-Lubuskie.

## Regional level: Länder

Brandenburg is involved in the definition of the transport projects of the national BVWP by proposing prioritized projects on their regional territory while referring to the TEN-T axes (ibid.). However, the national level decides about the final investments (Interview Neumann 2016). Brandenburg is additionally responsible to implement the prioritized **national road projects** on its territory, being funded by the national level, as well as to **maintain the national roads**. It can apply for TEN-T CEF funds (Interview Sauer 2016; Interview Neumann 2016). The development of **regional roads** is steered by the regional transport ministry and decided by Brandenburg (Interview Sauer 2016).

Brandenburg is responsible for the steering of the **regional public passenger transport** development (Interview Neumann 2016; Interview Kray 2016; Interview Dill 2016). ). Since 1996, the region has steered the regional rail transport (Ministerium für Infrastruktur und Landwirtschaft des Landes Brandenburg 2012, 10). The railway companies are responsible for the maintenance of the rail infrastructure and the vehicles. The region Brandenburg decides about the provided services and defines quality standards but does not fund the vehicles (ibid., 11).

In Brandenburg a so called *Integriertes Verkehrskonzept (IVK)* (integrated transport concept) was established in 2002. It is a regional transport plan. The aim of the IVK is to define a long-term perspective and aims for the regional transport policy by taking into account aims of the urban, environmental, economic and structural policies. It does not define concrete concepts or projects. This has to be done at lower levels in sectoral concepts but also in the *Landesentwicklungsplan* and *Regionalpläne* (Land Brandenburg 2002, 6f. and 18). The *Mobilitätsstrategie 2030* (mobility strategy 2030) which was approved in 2017 has replaced the IVK (Interview Neumann 2016; Land Brandenburg 2017).

The *Mobilitätsstrategie 2030* copes with different kinds of mobility and not solely transport infrastructure development. As successor strategy of the IVK it defines a Leitbild with mobility targets until 2030 (Land Brandenburg 2017) and relates to the transport development with Poland (Interview Neumann 2016). The mobility strategy was developed in coordination with the renewed German national BVWP (see **chapter 6.2.1**) and regional planning. Additionally, it refers to the sustainability and energy strategies of Brandenburg (Land Brandenburg 2017, 2).

The spatial planning document *Landesentwicklungsprogramm* of 2007 (LEPro 2007) is a framework programme of the regional planning level in the two *Länder* Brandenburg and Berlin out of which the *Berlin-Brandenburg Landesentwicklungssplan* (LEP B-B) is developed. It defines principles and guidelines (Hauptstadtregion Berlin-Brandenburg 2007, 19 and 42).

The *Berlin-Brandenburg Landesentwicklungssplan* (LEP B-B) of 2009 concretizes the LEPro 2007 (Hauptstadtregion Berlin-Brandenburg 2009) and lies down principles and aims of spatial planning (Hauptstadtregion Berlin-Brandenburg 2007, 19). In the field of transport it defines superordinate spaces for road and rail connections in the region (Hauptstadtregion Berlin-Brandenburg 2009, 22). However, not concrete tracks are defined. This is the task of the lower planning levels which shall additionally

consider environmentally friendly concerns (ibid., 57). Furthermore, the plan defines planning targets for maximum travel times between central places. These targets need to be considered by the sectoral transport planning (ibid., 51). Additionally, aims concerning the accessibility of the Polish larger cities (*Oberzentren*) Szczecin, Poznan and Wrocław are defined. This includes information on required transport infrastructures and rail connections (Interview Neumann 2016). The LEP B-B shall be seen as a framework document for the spatial development of Brandenburg. The document needs to be considered by the lower spatial and sectoral planning levels in their weighing of interests (Hauptstadtregion Berlin-Brandenburg 2009, 58). The LEP B-B is currently revised and shall come into force in 2019 (Interview Sauer 2016).

Furthermore, a regional *Landesstraßenbedarfsplan* is developed which defines the most urgent investment needs in road infrastructure within Brandenburg as it is done at national level. The last plan dates of 2010. It is based on a vulnerability analysis of the existing road network (Landesbetrieb Straßenwesen Brandenburg 2010, 2ff.). The plan belongs to the sectoral planning instruments (Land Brandenburg 2017, 3).

The *Landesnahverkehrsplan (LNVP)*, another sectoral planning policy document, (ibid., 3), defines the services connections of rail and additional public transport modes, in the case railways are not available, which are to be offered by the transport providers. This is used as basis also for negotiations with the Polish public transport providers when cross-border connections are concerned (Interview Neumann 2016). Also supraregional public transport that crosses the region's borders is defined by the plan (Ministerium für Infrastruktur und Landwirtschaft des Landes Brandenburg 2012, 1). Besides that, the plan shall be used by the municipalities of Brandenburg as a framework for the definition of and the coordination with the residual public transport that is in their responsibility (ibid., 3). The plan shall contribute to the implementation of EU, national and region transport-related aims (ibid., 10). The plan of 2012 is to be revised in 2017. It is based on the LEP and coordinated with the *Landesverkehrsplan* (ibid., 10,58).

Further sectoral planning policies are developed, for instance, a strategy for bicycle transport and a concept for air transport (Land Brandenburg 2017, 3, 2017, 3). These, are however, not relevant for this dissertation.

Besides these traditional transport planning tools, Brandenburg defined strategies and programmes which refer to the transport development at least to a certain extent: the *Internationalisierungsstrategie* (strategy of internationalisation), the *Nachhaltigkeitsstrategie* (sustainability strategy) and the *Verkehrssicherheitsprogramm* (transport safety programme).

In the last and current funding period also an Operational Programme for the usage of the ERDF was defined by Brandenburg.

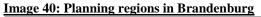
#### Subregional level: planning regions

Brandenburg has five subregional planning regions (see **The planning** region *Oderland-Spree* developed an integrated transport concept for its territory (*Integriertes Verkehrskonzept der Region Oderland-Spree*) on behalf of its *Kreise* in 2007. It defines aims and actions. This concept promotes the integration of the planning region into the European transport network. Furthermore, the subregion is said to have delivered several opinions towards national, regional and local planning policies in order to integrate the subregional interests, i.e. the interests of the lower levels that are situated in the subregional boundaries. It thereby aims at harmonizing and bundling the local interests of the *Kreise* to increase the visibility and influence (Interview Kramer 2016; Interview Schiwietz 2016). A new subregional plan is said to be developed after the adaption of the plan on wind energy which was under development in the end of 2016 (Interview Kramer 2016).

Image 40). These planning regions shall mediate between the regional and the local spatial planning and link the two levels (Interview Kramer 2016). Two of them directly border Polish territory. Their transport-related policies are described shortly in the following.

At subregional level the *Regionalpläne* shall implement the aims of the IVK into development concepts. The subregions *Oderland-Spree* and *Lausitz-Spreewald*, however, have not had a legally valid *Regionalplan* since 2000 because they still need to adapt their plans to the new regional LEP. There are solely technical plans, e.g. on wind energy, that are in place or currently developed. In the absence of the subregional plans, the LEP and its transport-related regulations are directly binding for the subregional level (Interview Kramer 2016; Interview Ullrich 2016). Besides the influence from the regional planning level, also local planning can influence the contents of a subregional plan (Interview Ullrich 2016).

The planning region *Oderland-Spree* developed an integrated transport concept for its territory (*Integriertes Verkehrskonzept der Region Oderland-Spree*) on behalf of its *Kreise* in 2007. It defines aims and actions. This concept promotes the integration of the planning region into the European transport network. Furthermore, the subregion is said to have delivered several opinions towards national, regional and local planning policies in order to integrate the subregional interests, i.e. the interests of the lower levels that are situated in the subregional boundaries. It thereby aims at harmonizing and bundling the local interests of the *Kreise* to increase the visibility and influence (Interview Kramer 2016; Interview Schiwietz 2016). A new subregional plan is said to be developed after the adaption of the plan on wind energy which was under development in the end of 2016 (Interview Kramer 2016).





Source: Regionale Planungsgemeinschaft Prignitz-Oberhavel 2009, 1.

In the end of 2016, the planning region *Lausitz-Spreewald* was preparing a new integrated regional plan based on a Leitbild with several subfields – among others, mobility. It was said that the strategy will relate to cross-border transport – particularly to long-range supraregional transport destinations. The long distance train connections are to be improved as the region considers benefiting from it as well. Additionally, it is said that it will aim at developing alternative modes of transport because public transport is considered to be difficult to provide in the sparsely populated region. Furthermore, transport development corridors are said to be defined (Interview Ullrich 2016).

The subregional planning level, however, does not invest in or implement transport infrastructures. Instead the subregional transport regulations are considered to influence the investments of the regional and local level (Interview Ullrich 2016; Interview Kramer 2016).

## Local level: municipalities

The municipalities are responsible for the maintenance of the **local roads**. When these roads cross the national border, the municipalities are said to coordinate the development with the neighbouring municipality on the other side of the border (Interview Neumann 2016). The *Kreise* and urban districts (*kreisfreie Städte*) have a *Nahverkehrsplan* which defines the local public passenger transport services that shall be offered to ensure accessibility. The *Kreise* have been involved in the development of the integrated transport concept of *Oderland-Spree* (Interview Kramer 2016). Brandenburg offers financial assistance (loans and subventions) for municipal projects which reduce the CO<sub>2</sub> emission in the field of transport and contribute to a more sustainable mobility (*Brandenburg-Kredit für Kommunen*) (Interview Sauer 2016).

## Public transport providers in Brandenburg

The regions Berlin and Brandenburg as well as the municipalities and Kreise are the formally competent authorities for regional public transport. They are organized as members of the Verkehrsverbund Berlin Brandenburg (VBB). Under the coordination of the VBB the territorial authorities define the scope of the transport offer which shall be provided by the transport providers. The VBB then manages and coordinates the transport offer, develops the schedules and is in contact with the transport providers like DB Regio, Ostdeutsche Eisenbahn GmbH and the Niederbarnimer Eisenbahn etc. and clients. The vehicles are owned by the transport providers. The public transport includes S-trains and residual regional public transport of Berlin and the region Brandenburg (Interview Dill 2016). It does not concern bus transport (Interview Neumann 2016). Based on public procurements service contracts are awarded to public transport providers (Interview Kray 2016). This also concerns regional cross-border rail transport (Interview Neumann 2016). In this context the VBB and the transport providers are said to be in regular contact with the transport providers of the Polish voivodeship Lubuskie. They jointly plan direct rail connections between Germany and Poland and coordinate connecting trains at the border (Interview Dill 2016). Brandenburg influences the public transport development through funds and a law. It finances the rail services from railway companies and designs service contracts. The region benefits from the German national *Regionalisierungsmittel* to finance the public regional rail transport services. This also concerns the rail service connections that lead to the Polish border (Interview Neumann 2016). Freight transport services can be steered less effective than passenger transport because it is said to be more complex (Land Brandenburg 2017, 3; Ministerium für Infrastruktur und Landwirtschaft des Landes Brandenburg 2012, 20).

## Poland

Poland is organized in a parlamentarian democracy. The Polish administration is divided in four levels (see **Figure 91**): the national level, 16 voivodeships, 314 counties (*powiats*) together with 65 city counties and 2,483 municipalities (*gminas*). The subnational levels are self-governed but not autonomous (Ziemer 2011, 21; ICLEI and Difu 1999, 99).

The **municipalities** autonomously take care of local issues and tasks which have not been transferred to the other administrative levels, among others, urban and development planning, strategic transport development as well as public service provision. The **counties** are responsible for local tasks which cannot be fulfiled by the municipalities (ICLEI and Difu 1999, 99f.) and tasks which have been legally delegated to them like the construction and maintenance of county roads (Dorsch 2003, 8).

The **voivodeships** or regional level are competent in the fields of regional economic development, spatial planning and landscape protection and fulfil tasks on behalf of the national level. They are steered by an elected 'marshall'. To control the implementation of the tasks delegated from national level, the government sends a '*wojewoda*' to each voivodeship (Ziemer 2011, 21).

The **national** level is competent, among others, in the management of national public transport and roads, the implementation of EU legislation and foreign policy (European Committee of the Regions n.y.).



#### National level

The spatial and transport development of Poland is strongly steered by national policies which will be described in the following. The national level also coordinates cross-border cooperation in the field of spatial planning and management and prepares reports on the spatial management of Poland (Ministerium für Infrastruktur und Entwicklung Polen 2014, 245). Additionally, the national level examines if the regional spatial plans of the voivodeships are conform to the national aims and strategies. New planning documents are developed under the participation of the other two administrative levels. Thereby a coherent and integrated spatial development of Poland shall be ensured (ibid., 245f.). Besides that, the Polish national government is responsible for supraregional rail and bus connections (Verkehrsverbund Berlin-Brandenburg, 24.49). Additionally, it decides about national road infrastructure investments (Interview Schiwietz 2016) and is responsible for the establishment and maintenance of national roads and motorways (Ahrens and Schöne 2008, 52). Also the inland waterways are managed at national level together with the voivodeships (Jansen, Czarnecka-Zawada, and Edler 2010, 47f.). The national level is also responsible for air transport (Sas-Micun n.y.). The Polish national Ministry for Infrastructure and Building coordinates the **TEN-T development** in Poland. It is steered by a special transport department responsible for international and European cooperation (Ministerstwo Infrastruktury i Budownictwa Polska n.y.).

The **National Spatial Development Concept (NSDC) 2030** (*Koncepcja Przestrzennego Zagospodarowania Kraju 2030*) of Poland defines visions for the spatial development of Poland in 2030. Thereby it also relates to transport development. One of its objectives is to increase the internal and external transport accessibility on different administrative levels (Ministry of Regional Development Poland 2012, 67). The NSDC is based on the aims of the national strategic policies of the government (see **Figure 92**) (Ministerium für Infrastruktur und Entwicklung Polen 2014, 245).

The Long-term National Development Strategy 2030 (LNDS) describes development trends and challenges of the Polish development and defines a development concept in a long term perspective (Rzeczpospolita Polska 2012, 4).

The Medium-term National Development Strategy 2020 (MNDS) (*Strategia Rozwoju Kraju 2020*), of 2012, defines national objectives and tasks for the development of Poland until the year 2020. These also concern the Polish transport system. The objectives and tasks are to be implemented by nine integrated strategies of different policy sectors (see Figure 92) with the support of EU funds (2015c; Rzeczpospolita Polska 2012, 4).

The National Strategy of Regional Development 2010-2020 (NSRD) (*Krajowa Strategia Rozwoju Regionalnego 2010-2010*) of 2010 is one of nine Polish development strategies which shall refer to the Long-Term National Development Strategy's challenges and implement the objectives of the Medium-Term NDS. The NSRD is a horizontal development strategy which focuses on territorial objectives and defines coordination principles for sectoral policies with a territorial impact. Thereby it is said to influence the Transport Development Strategy as well (Ministry of Regional Development Poland 2010, 12,135). Among others, the strategy aims at improving the accessibility of rural areas by enhancing the transport infrastructure and services (ibid., 85) and increasing the use of public transport in cities, (ibid., 91) as well as promoting cross-border cooperation of border areas (ibid., 101).



#### Figure 92: National development strategies in Poland

The **Transport Development Strategy until 2020** (**TDS**) (*Strategia Rozwoju Transportu Do 2020 Roku*) defines several specific aims in the broad field of transport which are to be implemented by the lower administrative levels. Among others, the transport accessibility and safety are to be improved. Furthermore, the national and international efficiency of the transport system shall be increased (Ministerium für Infrastruktur und Entwicklung Polen 2014, 205).

The **Strategy for Energy Security and Environment (SESE)** (2014) (*Strategia bezpieczeństwo energetyczne i środowisko – perspektywa do roku 2020*) belongs to the nine national development strategies and focuses on the fields energy and environment. It is based on the MNDS and defines guidelines for the Polish energy policy. It aims at sustainably offering a high quality of life while ensuring environmental protection and modernizing the energy sector (Ministertwo Energii Polska 2016). Therewith it has some intersection points of with the Polish transport development.

The **National Cohesion Strategy** (**NCS**) (*Narodowa strategia spójności*) is the National Strategic Reference Framework of Poland and defines the national priorities for the usage of the European Cohesion Policy funds in each funding period. In the period 2007-2013, investments in the transport infrastructure of Poland had a high priority (Ministry of Regional Development Poland 2007, 3). The document is directly linked to the Operational Programme Infrastructure and Environment.

Source: Rzeczpospolita Polska 2012, 5.

The policy document **National Transport Policy for 2005-2025** of 2005 (*Polityka transportowa państwa na lata 2005-2025*) reacts on the expected consequences of EU accession. Among others, the transport aims were adapted to the EU directives and policy. Thereby the Polish transport system was to be integrated into the EU network (Ministerstwo Infrastruktury Polska 2005, 5). Besides that, the document aims at investing in transport in order to react on the grown mobility and needs of the Polish society. Therefore it first describes the status quo and challenges. Afterwards it defines aims and projects for the modernization and development of the Polish transport system while reducing environmental harm (ibid., 5f.,14,35).

Besides these strategies the national ministries and administrations develop programmes on public infrastructures investments such as the National Road Construction Programme and the National Railway Programme. These need to be taken into account in the spatial planning of the lower administrative levels (Ministerium für Infrastruktur und Entwicklung Polen 2014, 246).

The **National Road Construction Programme** (**NRCP**) is a multi-annual programme which defines the investments into the construction, modernization and maintenance of national roads, motorways and fast roads (Ministry of Regional Development Poland 2012, 98). It lays down the aims and priorities of national road construction (Rzeczpospolita Polska 2012, 9). The current programme is valid for the period 2014-2023.

The National Railway Programme until 2023 (NRP) (*Krajowy Program Kolejowy do 2023 roku*) of 2016 shall implement the MNDS and the TDS. It defines investments in the national railway infrastructure for a multi-annual time period until 2023 (2015b).

Most of the railway infrastructure in Poland and Lubuskie is managed by the *PKP Polskie Linie Kolejowe S.A.* (Departamencie Infrastruktury i Komunikacji Urząd Marszałkowski Województwa Lubuskiego 2015, 38).

In 2005, Polands first **National Road Safety Programme** (**NRSP**) (*Krajowy Program Bezpieczeństwa Ruchu Drogowego*) was developed. This programme was updated in 2013. The aim is to reduce the number of road fatalities in Poland and to increase safety. The programme established priority actions and tasks (National ROAD SAFETY COUNCIL Poland 2013, 6). The current programme was developed based on international and European programmes and strategies like the White Paper 'Roadmap to a Single European Transport' of 2011 but also on the national strategies MNDS and TDS (ibid., 15f.).

The **IPPON study** of 2014 analyses the spatial integration of the German-Polish border area in the Polish policy documents. It was created by the national ministry responsible for infrastructure and development of Poland together with the Western Polish voivodeships located at the German border to coordinate the cross-border spatial development and to define directions of development for the border area. European cohesion and integration are to be facilitated by this document (Ministerium für Infrastruktur und Entwicklung Polen 2014, 244).

Also EU related policy documents address the Polish transport development: The Polish **Partnership Agreement** for the funding period 2014-2020 shall contribute to the implementation of the LNDS and MNDS by making use of additional EU funds to minimize regional disparities in Poland. In this context also transport infrastructure investments shall be made to improve the Polish transport system (European Commission 2014g, 1).

The **Operational Programme Infrastructure and Environment** (*Program Operacyjny Infrastruktura i Środowisko*) has been part of the national Operational Programmes for the Convergence objective of the European Cohesion Policy in the last (2007-2013) and current (2014-2020) funding period. The current programme of 2014 shall, among others, contribute to the Polish transport development and the

removal of bottlenecks (ibid., 4). These programmes have been made use of to invest in the transport infrastructure in the fields of TEN-T road transport network, environmental friendly transport as well as transport safety and national transport networks. It is said to have benefited from the Connecting Europe Facility as well (Interview Klauza 2016).

#### Regional level: Voivodeships

One of the 16 voivodeships (see **Image 41**) is Lubuskie whose spatial and transport planning policies will be explained shortly in the following. The self-government and the marshall of the voivodeships are responsible for the development of **spatial plans**, whereas the representatives of the national administration at regional level and the *wojewoda* are competent to coordinate and implement the aims of the national spatial policies (Ebert, Tölle, and Wdowicka 2012, 12).



**Image 41: Voivodeships of Poland** 

Furthermore, the voivodeships are responsible for the establishment and maintenance of **regional roads** (Ahrens and Schöne 2008, 52), the management of **regional rail transport** (see below) and the management of the **inland-waterways** in cooperation with the national level (Jansen, Czarnecka-Zawada, and Edler 2010, 47f.).

The **Development Strategy of Western Poland 2020 (DSWP)** (*Polska Zachodnia 2020*), of 2014, is a strategy and development vision developed by the Western voivodeships Lower Silesia, Lubuskie, Opole, Greater Poland and West Pomerania (Ministerstwo Infrastruktury i Rozwoju Polska 2014, 3).

Source: Ministry of Labour and Social Policy Poland 2011.

The strategy refers to the transport development of Western Poland. The DSWP implements European and national aims and was said to be influenced by the Europe 2020 Strategy, as well as the national MNDS, LNDS and particularly the NSRD. Also the NSDC is said to have influenced the DSWP. The DSWP focuses on supraregional issues and shall be considered complementary to the voivodeship strategies (ibid., 7ff.).

The voivodeships define **voivodeship development strategies** (**VDS**) that shall contribute to the implementation of the national development priorities (MNDS and NSRD). Furthermore, they shall take into account local and subregional development strategies. The VDS should also be coordinated with the voivodeship spatial management plans (VSMP) (Ministry of Regional Development Poland 2010, 135).

The Lubuskie Voivodeship Development Strategy (LVDS) (*Strategia Rozwoju Województwa Lubuskiego 2020*), of 2012, defines guidelines for the promotion of cooperation within Poland and across borders. In this context it refers to the field of transport (Ministerium für Infrastruktur und Entwicklung Polen 2014, 209). It defines key investments for Lubuskie and aims at increasing the use of EU and national funds to make the region more attractive. The strategy is said to haven taken into account the European Cohesion Policy package for 2014-2020 and the national strategic documents LNDS, MNDS, NSDC and the nine thematic strategies (Board of the Voivodeship Lubuskie 2012, 5,62).

The voivodeships are responsible for spatial planning at regional level and develop **voivodeship spatial management plans (VSMP)**. These plans connect the national spatial development aims with the local plans (Ministerium für Infrastruktur und Entwicklung Polen 2014, 245).

The **Lubuskie Voivodeship Spatial Management Plan (LVSMP)** defines guidelines for the spatial structure of Lubuskie and the transport development in the region (ibid., 128). The LVSMP reacts on several national policies like the NSDC and other national or regional programmes on public investments as well as the regional LVDS. The LVSMP lays down guidelines for cross-border linkages (ibid., 245). The plan defines recommendations concerning the aims of the local planning tools to contribute to the completion of the regional spatial development aims (ibid., 246).

The **Revision of the LVSMP** defines strategic aims for the spatial development of the region. Furthermore, it secures territories for the aims' implementation. One of its aims is the expansion and modernization of the regional transport system and its external accessibility (ibid., 117).

The **Transport Development Strategy** (**TDS**) of Lubuskie (*Strategie Rozwoju Transportu Województwa Lubuskiego do roku 2015*) of 2004 evaluates the status quo of the transport infrastructure and services and defines aims and actions for the future development. In this context it also refers to cross-border transport (Województwo Lubuskie 2004).

The **Plan for a sustainable development of public transport in Lubuskie** (*Planu zrównoważorozwoju publicznego transportu zbiorowego na sieci komunikacyjnej w wojewódzkich przewozach pasażerskich*), of 2015, defines the basic principles for the functioning of the regional public passenger transport in Lubuskie. The plan takes into account the capacities, accessibility standards, as well as the maintenance and investment plans of the infrastructure providers. At the same time the infrastructure providers shall meet the needs of the transport providers and current traffic situations and implement the aims of this plan. Potential new public transport connections are to be identified. The binding plan stears the public transport development of the region. New connections which are not defined in this plan cannot be implemented. The plan shall increase the efficiency and quality of the existing public transport offer and stabilise it (Departamencie Infrastruktury i Komunikacji Urząd Marszałkowski Województwa Lubuskiego 2015, 5ff.).

The **Transport Development Programme of Lubuskie** (**TDPL**) (*Program Rozwoju Transportu Województwa Lubuskiego*) was developed in 2016. The programme describes the status quo of the transport system and makes proposals for its further development. Thereby it defines transport infrastructure investments of the voivodeship (Urząd Marszałkowski Województwa Lubuskiego 2016).

Also the EU related **Regional Operational Programmes** of Lubuskie of the last (2007-2013) as well as of the current funding period (2014-2020) address the transport development of Lubuskie. The funding programmes have been used to finance transport investments (Interview Klauza 2016).

#### Local and county level: municipalities and powiats

**Bus and tram services** are developed under the responsibility of the municipalities and counties. However, they can establish transport associations for the organization of bus and tram services (Ahrens and Schöne 2008, 57). The municipalities are legally responsible to plan, monitor and budget the whole **public transport**. They also decide about the timetables (Verkehrsverbund Berlin-Brandenburg, 24,49).

Besides that, municipalities establish and maintain **municipal roads**, the same is done by the counties on the **counties' roads** (Ahrens and Schöne 2008, 52).

At municipal level spatial planning policies are designed and implemented by two planning instruments, a **study of the conditions and directions of spatial management** (*Studium uwarunkowań i kierunków zagospodarowania przestrzennego*) and the **local spatial management plan (LSMP)** (*Miejscowy plan zagospodarowania przestrzennego*) (Ministerium für Infrastruktur und Entwicklung Polen 2014, 244). The study defines local principles and guidelines for the spatial management of the municipality. It has to take into account and implement the principles defined by the national (NSDC) and voivodeship level (LVSMP and LVDS) as well as – if existing - those of the local development strategy. The guidelines are binding for the municipality when establishing the local spatial management plans (ibid., 245f.). The LSMP defines the land uses of the municipal land, including public investments as well as management and development principles which are binding (ibid., 245). Only the Polish municipalities can define legally-binding concrete territory-based spatial objectives (Ebert, Tölle, and Wdowicka 2012, 3).

#### Public transport providers in Poland

The voivodeships are responsible for the financing and organisation of the regional rail transport. However, the national transport ministry is responsible for transregional public transport services which connect more than two regions. In addition the national level finances rail connections of national and international relevance (Interview Dill 2016; Ahrens and Schöne 2008, 57). Lubuskie has a regional rail transport provider, called *Przewozy Regionalne* (PR), which is responsible for the provision of regional rail connections. The voivodeship owns the vehicles. Besides that, there are other private regional transport providers like *Wielkopolska* Railways, *Dolnośląskie* Railways (KD), *Mazowieckie* Railways which provide train connections in Lubuskie (Interview Klauza 2016; Interview Dill 2016). The Polish public transport offer is based on the demand and not on a regular system (Departamencie Infrastruktury i Komunikacji Urząd Marszałkowski Województwa Lubuskiego 2015, 140).

#### Comparison of the transport planning competences of Poland and Germany

The comparison of the German and Polish competences in the field of transport infrastructures shows several similarities, for instance, in the management of inland waterways, and at local level, but also differences (see **Table 60**). In Poland most infrastructures are steered centrally by the national level, whereas in Germany several competences are shared with the regional and subregional levels. In Poland, the subregional level – i.e. the counties – do not have many competences compared to the German subregional levels - except of county roads. Also the Polish regional level's infrastructural competences are much lower than in Germany.

Transport Infrastructure				
	Germany	Poland		
	high speed railroads	high speed railroads		
	regional railroads	regional railroads		
national	TEN-T	TEN-T		
national	inland waterways	inland waterways		
	national roads	national roads		
		airports		
	airports			
	national roads			
	regional roads	regional roads		
ragional	high speed railroads			
regional	regional railroads			
	inland waterways	inland waterways		
	ports			
	soft mobility			
	subregional roads	subregional (county) roads		
	high speed railroads*			
subregional	regional railroads*			
C	national roads*			
	regional roads*			
local	local roads	local roads		
local	soft mobility	soft mobility		
* only proposal	s			

Source: Author, Kaiserslautern, 2017.

Besides that, the German public rail transport is based on a clock face circuling whereas the Polish public transport is offered based on a more flexible system based on the demand (ibid., 140).

When looking at the competences in terms of transport services (see **Table 61**), the distribution of competences is rather similar. Still, differences exist. The Polish national level steers regional rail connections which cross more than two regions, besides that, the regional level is reponsible as it is the case in Germany. The county level level does not exist as such in German transport service organisation. In Poland it is possible that the municipalities establish transport associations for bus and urban transport like in Germany, however, no regional trains can be managed. Regional buses are not managed by the regional public adminstration but are privatized.

Transport Services					
	Germany	Poland			
national	high speed trains	supraregional trains			
national		regional trains*			
nacional	regional buses				
regional	regional trains	regional trains			
sub		local (county) buses			
regional		urban (county) transport			
• .	local buses	local buses			
inter- municipal	regional buses				
municipai	regional trains				
local	local buses	local buses			
local	urban transport	urban transport			

\* transregional public transport services which connect more than two regions Source: Author, Kaiserslautern, 2017.

In addition to some differences in the distribution of the competences also the financial support mechanisms and character and aims of the policy documents, i.e. the transport planning tools, as well as their mutual influence vary. The planning and transport systems in Poland and Germany are said to vary very much, particularly in the level of detail, which makes it hard to compare the planning aims of the documents of both countries (Gemeinsame Landesplanungsabteilung Berlin-Brandenburg 2008, 4).

To foster the coordination of planning across borders, a German-Polish spatial planning information system was established (D-P PLIS) in 2008 which informed about the domestic plans and provided a billingual map that depicted the spatially relevant structures on both sides of the border in a common design. This was to facilitate the planning on both sides of the border (ibid., 4, 16).

As the aim of this dissertation is to find out more about cross-border transport, the objectives towards cross-border transport of the presented domestic policy documents are analysed in the next section. In addition, cross-border policy documents which were developed in cooperation between the two member states are analysed. Additionally, it is to be found out if the domestic policies and planning cultures have been path dependent and have hindered their assimilation to EU policy objectives and across borders and thereby hampered an efficient cross-border transport in the Brandenburg-Lubuskie cross-border region. Besides that, it is to be found out if the cross-border transport coordination is lacking behind compared to the one of the Greater Region because of the shorter cooperation tradition between Germany and Poland.

# 6.4.3 Contribution of domestic and cross-border policy transport documents to cross-border transport and reference to EU policy aims

This chapter illustrates the Polish and German domestic as well as the cross-border policy document's reference to cross-border transport by analysing the policies' objectives and comparing them with the EU policies' transport-related objectives addressed in **chapter 4.3**. The findings are used in the following section to assess the influence of the EU policies on the domestic and cross-border policies. The methodological approach of the document analysis is explained in **chapter 1.3**. The policies are presented in the countries' alphabetical order. After that the cross-border policies are presented. Then the domestic and cross-border policies' influence on cross-border transport is compared. The section concludes with a description of the perceived challenges in the domestic and cross-border transport policies on the influence of the domestic and cross-border transport policies on cross-border transport is compared. The section concludes with a description of the perceived challenges in the domestic and cross-border transport policies on cross-border transport is compared.

#### Germany

The policies of the German national level were already described in **chapter 6.2.2** as they were relevant for both case studies. The results are taken into account in the analysis of the whole German formal policy implementation. In Germany in total 28 policies were analysed. These were published between 1995 and 2017 (see **Table 62** and **Table 37**).

The majority of the German policies are pure transport policies and spatial planning documents, followed by environmental and EU related policies. The distribution on these categories varies on the different administrative levels as can be seen in **Figure 93**. At subregional level, for instance only spatial planning and a mixture of spatial planning and transport policy documents exist. Because of the low number of analysed subregional policy documents, the statistical results in comparison to the EU objectives have to be handled with caution.

61% of the German policies refer to cross-border transport. 43% of them mention the TEN-T which is still a high percentage compared to the German policy documents analysed in the first case study: here only 33% of the documents related to the TEN-T. A higher percentage of regional policy documents from Brandenburg relate to the TEN-T (54%) than the German average. Only one document from the

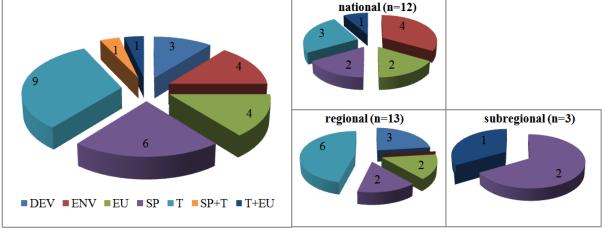
subregional level refers to the TEN-T. Cross-border transport, however, is promoted by 67% of the subregional policies. All policies developed with the EU - except one - referred to cross-border transport. Three of eight also mentioned the TEN-T.

Admin. level	Name of the policy document	CB- transport
regional	Integriertes Verkehrsentwicklungskonzept (2002) Brandenburg	yes
	Landesentwicklungsprogramm 2007 (LEPro 2007)	yes
	Operationelles Programm des Landes Brandenburg EFRE (2007-2013) Ziel Konvergenz (2007)	yes
	Landesnahverkehrsplan Brandenburg 2008-2012 (2008)	yes
	Landesentwicklungsplan Berlin-Brandenburg (LEP B-B) (2009)	yes
	Landesstraßenbedarfsplan (2010)	
	Gemeinsame Innovationsstrategie der Länder Berlin und Brandenburg (2011)	
	Landesnahverkehrsplan Brandenburg 2013-2017 (2012)	yes
	Operationelles Programm des Landes Brandenburg für den EFRE (2014-2020) (2014)	
	Internationalisierungsstrategie für das Land Brandenburg (2014)	yes
	Nachhaltigkeitsstrategie der Landesregierung (2014)	
	Verkehrssicherheitsprogramm Brandenburg (2014)	
	Mobilitätsstrategie Brandenburg 2030 (2017)	yes
subregional	Regionalplan Lausitz-Spreewald (1995/97)	yes
	Regionalplan Oderland Spree (1996)	
	Integriertes Verkehrskonzept 1+2 der Region Oderland-Spree (Entwicklungskonzeption des Regionalplanes) (2007/08)	yes

Table 62: Transport-related documents at subnational German level (Brandenburg)

Source: Author, Kaiserslautern, 2017.

Figure 93: Composition of the German policy documents (n=28)



Source: Author, Kaiserslautern, 2017.

The **degree of detail of the objectives** in terms of cross-border transport and the TEN-T varies between the documents. In the following, the **relations to cross-border transport** of two selected German domestic policies are presented in detail. These were developed on the two different subnational administrative levels and belong to different policy fields: the *Mobilitätsstrategie Brandenburg 2030*, a regional transport-related policy document of Brandenburg and the *Integriertes Verkehrskonzept 1 der Region Oderland-Spree* a subregional spatial and transport planning document. The other policy documents' relation to cross-border transport can be found in the **appendix**.

According to the *Mobilitätsstrategie Brandenburg 2030*, of 2017, the region is said to be an important TEN-T node as it is crossed by three core network corridors (Land Brandenburg 2017, 4). It shall be benefitted more from the TEN-T network by connecting it to the internal infrastructure to increase the competitiveness of the region and increase its international accessibility (ibid., 20). The cooperation

with the neighbouring Polish voivodeships and the bordering German *Länder* shall be enhanced (ibid., 20). Additionally, the dialogue in cross-border cooperation bodies like the round table 'transport' of the Oder partnership and the German-Polish rail summit shall be increased (ibid., 21). The rail connections between Brandenburg and Poland are said to need to be expanded. The subregions of Brandenburg located at the Polish border are said not to benefit much from the existing connections (ibid., 4). The different transport modes shall be interconnected. The regional rail connections shall particularly link the larger cities better and be coordinated across borders (ibid., 20). Mobility shall become more barrierfree, also in terms of languages, and accessible for everybody to ensure equal living conditions (ibid., 25). When maintaining existing transport infrastructures, EU funds like the CEF are to be made use of. Additionally, INTERREG projects could be used as a framework for the exchange of mobility solutions with the Polish regions (ibid., 20f.).

According to the Integriertes Verkehrskonzept 1 der Region Oderland-Spree, of 2007, the region's economic centres shall be connected to the European transport corridors. Particularly the Oder-Lausitz-Trasse should be linked to the European transport network. It shall be benefitted more from the vicinity to the Polish border. The economic and service centres of both countries shall be connected better. The region's logistical hubs shall benefit from their integration into international networks and flows of goods (Regionale Planungsgemeinschaft Oderland-Spree 2007, 3). The region's connection to the TEN-Ts in north-south and east-west direction is said to be very relevant for the economic market (ibid., 4ff.). The north-south transport infrastructure between Scandinavia and southern Europe needed to be made more attractive because so far the transport flows had not crossed the region (ibid., 7). Also the Pan-European Corridors are said to be of high relevance for the region. Because of expected growing transport flows, due to the opening of the Eastern border, the transport infrastructures shall be expanded (ibid., 6). The road and rail network between Berlin - Poznan and Warsaw needed to be expanded as well to relieve congested sections at the national borders (ibid., 6). The regional transport network is to be secured and expanded in its cross-border dimension for freight and passengers in Eisenhüttenstadt. Bottlenecks are to be removed. Furthermore, a cross-border rail bridge is to be established across the Oder in Frankfurt. Stations are to be renovated. Also a cross-border road between Germany and Poland is to be re-established (ibid., 13ff.).

All three **cross-border transport-related objectives** are promoted by less than 50% of the German analysed policies (see **Figure 94**). The improvement of cross-border services, in particular, is promoted only by 25% of all policies.

The regional level' policies of Brandenburg promote the **connection of TEN-T and secondary networks** most (54%) - even more than the EU policies. Most similar to the EU support in this objective are the national and subregional policies (see **Table 63**).

Policy level	TEN-T and secondary networks	CB infrastructure	CB services	All categories
Germany national (n=12)	6.7	45.0	38.3	20.1
Brandenburg regional (n=13)	13.8	40.5	15.9	16.2
Germany subregional (n=3)	6.7	20.0	20.0	27.5
DE (n=28)	2.9	40.2	21.7	15.3

Table 63: Average deviation of the German policies from the EU policies

Source: Author, Kaiserslautern, 2017.

	0	10	20	30	40	50	60	70	80	90	100
Transport infrastructure network											,
Remove barriers, improve efficiency					_					-	
Linking TEN-T and secondary networks											
Relieve routes/ fighting congestion			_	_		•					
Intermodality/ interoperability			_	_			_		-		
Intelligent transport systems					-		-				
Freight corridors				•							
New technologies/innovations (research)					-						
Improving mobility of freight						_				-	
Improving mobility of passengers						_		- 1	_	-	
Accessibility of remote areas					_				•		
Connecting neighbouring/New Member States				_							
Cross-border infrastructures		1		- <sup>-</sup>			_	-			
User-friendliness							1		-		
Transport services					_					•	
(Urban) public and soft mobility											
Transport safety				_	-	•		-			
Cross-border services						•		,			
Environmental and sustainability issues		_			_		_			_	
Alternative modes of transport			_			_	_			-	
Alternative fuels/ climate change						_				-	
Minimising environmental harm							_	_		-	
Sustainable transport		-	_	-	_	-	- 1	_	•	-	
Exchange of practices/ coordination											
EU policy (n=15) Germany subregional (n=3) DE (n Gource: Author, Kaiserslautern, 2017.	any 1=28	natior )	nal (n=	=12)	<b>_</b> J	∎ Bı	ander	burg	regior	nal (n:	=13)

#### Figure 94: Contribution of the German policy objectives to EU policy transport-related objectives

Source: Author, Kaiserslautern, 2017.

As can be seen in **Figure 94** the enhancement of **cross-border infrastructures** is promoted by all German administrative levels less than in the EU policies – and least by the national policy documents (42%). It is supported most by the subregional policy documents (67%). The low relation of the regional policy documents to cross-border infrastructures seems to be related to the **missing competences** of that level. According to Neumann, the regional level does not steer the development of cross-border transport infrastructures because the negotiations on cross-border transport infrastructures between Poland and Germany lie primarily in the regional administrations are involved in road infrastructure negotiations and lead the transport requirement planning of the national roads with the Polish side. However, no regional roads are said to lead to the Polish border (Interview Neumann 2016). Additionally, the regional level is said not to be competent in the expansion of the railway infrastructure. Thus, it relies on the investment decisions of the national level. Cross-border agreements on the expansion, cannot be implemented if the national level does not support them (Interview Kray 2016).

Also the improvement of **cross-border services** is promoted least by the policies developed at national level (8%) and most by the subregional policies (67%). Only 31% of the regional policies promote this

objective although the regional level is responsible for the public transport (Interview Neumann 2016): it coordinates the offer and finances the cross-border transport connections together with the Polish counterparts. Therefore it is considered to have a strong influence on cross-border transport (Interview Sauer 2016; Interview Kray 2016). However, four of six pure transport policy documents relate to cross-border transport services. None of the policies with another thematic focus promoted this objective.

In general, **cross-border cooperation with Poland** is promoted by the **regional** constitution of Brandenburg. Therefore also cross-border transport is considered to be an important issue. The two regional spatial planning documents LEP B-B as well as the revised LEP which is planned to come into force in 2019 and the *Mobiltätsstrategie 2030*, refer to Poland and its connection to Brandenburg (Interview Sauer 2016; Interview Neumann 2016). The regional spatial planning department of Brandenburg is said to try to influence the transport development policy with strategic and political objectives. However, it has no direct competences in this field (Interview Sauer 2016; Interview Sauer 2016).

According to Ullrich, the German **subregional policies** influence the investments of the regional and local level and thereby also potential investments in infrastructures that lead to the national border. The new subregional plan of *Lausitz-Spreewald* might increase the perception of the need to invest more in cross-border transport (Interview Ullrich 2016). The integrated transport concept (*Integriertes Verkehrskonzept*) of the subregion *Oderland-Spree*, described above, relates to cross-border transport. Therewith it aims at promoting the development but cannot directly steer it because of missing **competences**. Still it **bundles the interests** of the lower levels and represents them at the higher levels. In addition to this policy document, the subregion has delivered **opinions** on local, regional or national planning to **influence the transport development decision makers** and to promote the TEN-T expansion across borders (Interview Kramer 2016; Interview Schiwietz 2016).

Overall, the **national** level's support of cross-border transport, including the objective of a better connection to new EU member states, in German policy documents seems to be very low although according to Neumann, cross-border transport is primarily an issue treated at the national level. Usually the Polish and German transport ministries, the ministries of foreign affairs and the Federal Foreign Office of Germany are involved because mainly infrastructures of the national level like motorways, railways and waterways are concerned in the expansion of cross-border transport. The development is said to be steered by additional bilateral agreements (Interview Neumann 2016).

Despite a low promotion of these cross-border transport-related objectives by the national polices, the lower administrative levels promote it to a higher degree. Thus, there is no distinct **top-down influence** concerning cross-border transport and the residual EU transport objectives within the German policy realm. The relevance of the objective on an enhancement of **cross-border services** seems to increase on the lower administrative levels, which probably is due to a higher **local relevance** of this topic. The improvement of **cross-border infrastructures** is promoted by the national and regional policies to a similar, but rather low degree, whereas a high percentage of the subregional policies support it strongly.

When looking at the overall **relevance of the EU transport aims in the German policies** (see **Figure 94**), the German policy documents follow the allocation of relevance of the EU policies in most objectives. Some objectives are even promoted stronger by the German policies– or one administrative level - than by the EU policies. Others are promoted more by the EU. Bigger differences (more than 30% deviation) exist solely in three objectives, among others, the enhancement of cross-border transport infrastructures. The promotion of cross-border transport infrastructures at EU level does not seem to influence the German policy documents much.

The similarity of support of the policy documents from the different administrative levels to the EU policies varies from objective to objective. Most similar in the support of cross-border infrastructures

are the subregional policies, the same applies to the regional policies in terms of cross-border services. When all the average value of the transport-related objectives is taken into account, the support of the EU objectives by the German regional level policies is most similar to the EU policies (see **Table 63**.).

Some of the **residual transport-related EU objectives** are promoted to a similar degree by the national and regional level (e.g. objectives related to the environment and sustainability), whereas more technically, infrastructure- as well as freight-oriented objectives are promoted much more by the national level than by the regional level policies (see **Figure 94**). The objective 'exchange of practices', however, is promoted more by the regional policies than the national policies. Thus, a top-down influence can hardly be proven. The promotion of objectives seems to depend much more on the administrative levels' **competences** and **interests**. The general and universal objectives are relevant for all administrative levels and thus, strongly promoted. Specific objectives are promoted less. According to Neumann, however, the national level policy documents have had a strong influence on the lower administrative levels' policies in the field of 'environmental and sustainability issues'. For instance, the national *Klimaschutzplan 2050* (Climate protection plan 2050) which relates to the future of transport as well as the national environmental legal provisions are said to influence the regional transport strategies. This is because the aims and provisions legally needed to be integrated or taken into account (ibid.).

According to the stakeholders interviewed, also the **regional and subregional levels** tried to **influence the national level** in the context of cross-border transport and called the national level to invest in the railroads and motorways to Poland (Interview Kray 2016; Interview Kramer 2016) and to integrate certain infrastructures in the new national BVWP. The routing of the TEN-T corridors was used as basis for argumentation for their claims (Interview Sauer 2016). However, several proposed investments were not integrated in the BVWP with the highest priority. The national level did not consider the need to be as high as it was evaluated by the regional level (Interview Neumann 2016). Still, according to Kramer, in the case of the project on the expansion of the motorway A12, which leads to the Polish border, the consultation of the regional and subregional levels lead to a higher ranked relevance of the project than in the draft document of the BVWP (Interview Kramer 2016). Another example is the regional promotion of the expansion of the rail connection between Berlin and Wrocław. However, so far, the national level has not integrated this aim in the BVWP (Interview Neumann 2016). Thus, the subnational influence on the national policy documents varies. These initiatives exist because the competences for the national infrastructures and long distance services are situated at national level.

Most **concrete cross-border infrastructure** projects were defined by the subregional policies, whereas most **cross-border service projects** were named by the regional policies. Three **regional** policy documents defined concrete cross-border projects. Most of them concerned cross-border rail service connections; two are less concrete and promote the enhancement of all transport mode infrastructures and services between certain cities. According to Neumann, the regional *Landesnahverkehrsplan* has a strong influence on cross-border transport as it defines very concrete aims concerning the public transport development across borders (ibid.). Also the document analysis showed that this document names the highest numbers of concrete regional cross-border projects. Two of the three **subregional** policy documents defined concrete projects. Most of them were named by the *Integriertes Verkehrskonzept*. The projects concern different transport modes for both passenger and freight transport. Three bridges are to be developed or renovated. No cross-border bus connections are mentionend. The subregional policy documents did not repeat one of the projects mentioned at regional level.

Only two projects were promoted by the **national** and regional level at once (rail axis between Berlin and Frankfurt/Oder and the Polish border as well as the motorway connection from Berlin via Cottbus

to Poznan). All other projects seem to depend on the relevance on each administrative scale. Thus, there seems not to be a strong influence on cross-border project level between the different German administrative levels. A list of the defined concrete cross-border projects can be found in the **appendix**.

#### Poland

The Polish transport development is only steered on two administrative levels. The respective policy documents' objectives are presented in the following.

The majority of the analysed 23 Polish policy documents (see **Table 64** and **Figure 95**) are transport policies, followed by development policies, spatial planning policies and policies established in cooperation with the EU. The policy documents were adopted between 2004 and 2016.

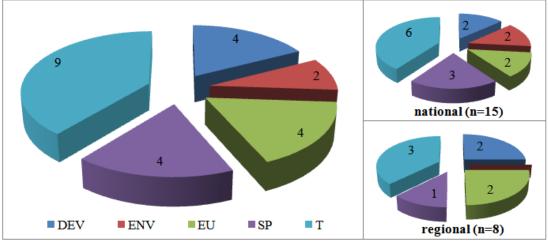


Figure 95: Composition of the Polish policy documents (n=23)

Overall the analysed Polish policies show a quite high percentage of relation to cross-border transport (87%) and the TEN-T (78%). The regional polices mentioned cross-border transport (100%) and the TEN-T (88%) to a higher degree than the national policies (80% respectively 73%).

The **degree of detail of the objectives** in terms of cross-border transport and the TEN-T varies between the documents. In the following, the **cross-border transport relations** of two selected Polish domestic policies are presented in detail that were developed on the two different administrative levels and belong to different policy fields: the *Strategia Rozwoju Transportu Do 2020 Roku*, a national transport-related policy document and the *Strategia Rozwoju Województwa Lubuskiego 2020* a regional development strategy. The other policy documents' relation to cross-border transport is described in the **appendix**.

Admin. level	Name of the policy document	CB- transport
national	National Transport Policy for 2005-2025 (2005) (Polityka transportowa państwa na lata 2005-2025) (PL)	yes
	National Strategic Reference Framework/ National Cohesion Strategy 2007-2013 (2007) (Narodowa strategia spójności)	yes
	National Strategy of Regional Development 2010-2020 (2010) ( <i>Krajowa Strategia Rozwoj</i> u Regionalnego 2010-2010)	yes
	National Road Construction Programme for 2011-2015 (2011) (PL)	yes
	National Spatial Development Concept 2030 (NSDC) (Koncepcja Przestrzennego Zagospodarowania Kraju 2030)(2012)	yes

Table 64. Analy	sed Polish domestio	nolicy documents
Table 07. Analy	scu i onsh uomesh	poncy accuments

Source: Author, Kaiserslautern, 2017.

national	Medium-Term National Development Strategy 2020 (MTNDS) ( <i>Strategia</i>	yes
	<i>Rozwoju Kraju 2020)</i> (2012)	5
	Long-Term National Development Strategy - Poland 2030. The third wave of modernity (2012) ( <i>Polska 2030 Trzechia fala nowoczesnosci Długookresowa</i>	yes
	Strategia Rozwou Kraju)	J <b>.</b>
	Transport Development Stategy until 2020 (TDS 2020) (2013) ( <i>Strategia Rozwoju Transportu Do 2020 Roku</i> )	yes
	National Road Safety Programme 2013-2020 (NRSP 2013)(2013) (Krajowy Program Bezpieczeństwa Ruchu Drogowego)	
	National Operational Programme Infrastructure and Environment 2014-2020 (2014) ( <i>Program Operacyjny Infrastruktura i Środowisko 2014-2020</i> )	
	IPPON: Studie der räumlichen Integration des deutsch – polnischen Grenzraums (2014)	yes
	Polish Partnership Agreement (2015)	yes
	Strategy for Energy Security and the Environment – 2020 perspective (2014)	
	(Strategia bezpieczeństwo energetyczne i środowisko – perspektywa do roku 2020)	
	National Road Construction Programme 2014-2023 (2015) ( <i>Program Budowy Dróg Krajowych na lata 2014-2023</i> )	yes
	National Railway Programme until 2023 (2016) ( <i>Krajowy Program Kolejowy do</i> 2023 roku)	yes
Western Poland	Entwicklungsstrategie Westpolens 2020 (2014)	yes
Lubuskie	Transport Development Strategie of the Lubuskie Region (2004) ( <i>Strategie</i> <i>Rozwoju Transportu Województwa Lubuskiego do roku 2015</i> )	yes
	Regional Operational Programme Lubuskie 2007-2013	yes
	Lubuskie Voivodeship Development Strategy 2020 (2012) ( <i>Strategia Rozwoju</i> <i>Województwa Lubuskiego 2020</i> )	yes
	Revised Lubuskie Voivodeship Spatial Management Plan (Planu Zagospodarowania Przestrzennego Województwa Lubuskiego 2014-2017) (2012)	yes
	Regional Operational Programme Lubuskie 2014-2020 (2015)	yes
	Plan for a sustainable development of public transport in Lubuskie (Planu	yes
	zrównoważorozwoju publicznego transportu zbiorowego na sieci komunikacyjnej	-
	w wojewódzkich przewozach pasażerskich)(2015)	
	Transport development programme of Lubuskie ( <i>Program Rozwoju Transportu</i> <i>Województwa Lubuskiego</i> ) (2016)	yes

Source: Author, Kaiserslautern, 2017.

According to the Transport Development Stategy until 2020 (Strategia Rozwoju Transportu Do 2020 Roku), of 2013, the deficits of the Polish transport infrastructure shall be reduced by modernizing and expanding the infrastructure and connecting it to the TEN-T (Ministerstwo Infrastruktury i Rozwoju Polska 2013, 8). It is expected that the transport flows in international freight and passenger transport will increase strongly in the future (ibid., 36). In this context the cross-border trains to Frankfurt/Oder shall be accelerated until 2020 to a speed between 121 and 199km/h. The Polish trains running on the TEN-T network shall run at least with 100km/h (ibid., 51). Cross-border rail service connections are to be improved with Germany and correspond to the European standards until 2030 (ibid., 52). The interoperability of the transport support systems in the EU shall be enhanced (ibid., 67). In this context a European telematic freight and passenger transport system shall be implemented which is applicable for the TEN-T rail corridors. Furthermore, ERTMS and RIS shall be applied on the most important TEN-T corridors (Rzeczpospolita Polska 2012, 5f.). This shall contribute to lower travel times on the TEN-T rail tracks (Ministerium für Infrastruktur und Entwicklung Polen 2014, 206). Besides that, multimodal hubs shall be expanded in the TEN-T network to connect at least two transport modes (Ministerium für Infrastruktur und Entwicklung Polen 2014, 207; Ministerstwo Infrastruktury i Rozwoju Polska 2013, 81). Efficient transport connections are to be established between the capital cities of the voivodeships and the most important cities abroad (Ministerium für Infrastruktur und Entwicklung Polen 2014, 205). The infrastructure of the Polish inland waterways is to be adapted to European inland

waterway network standards. The Oder river shall be integrated into the European transport network (ibid., 206f.).

The Lubuskie Voivodeship Development Strategy 2020 (*Strategia Rozwoju Województwa Lubuskiego 2020*), of 2012, promotes cross-border cooperation in general (Board of the Voivodeship Lubuskie 2012, 32). The development strategy calls for initiatives to enhance the cooperation and establishment of the north-southern central European transport corridor which links Scandinavia with Poland, the Czech Republic, Slovakia, Austria and Italy (Ministerium für Infrastruktur und Entwicklung Polen 2014, 127). Furthermore, the railway and road connections between the two capital cities Zielona Góra and Górzow as well as with Berlin shall be made more efficient (Ministerium für Infrastruktur und Entwicklung Polen 2014, 157; Board of the Voivodeship Lubuskie 2012, 46). The road and rail connections with Germany are to be enhanced, among others, by establishing further bridges across the Oder and Neisse river (Ministerium für Infrastruktur und Entwicklung Polen 2014, 177; Board of the Voivodeship Lubuskie 2012, 45). The TEN-T network is to be expanded and connected to the secondary and lower transport network (Ministerium für Infrastruktur und Entwicklung Polen 2014, 209; Board of the Voivodeship Lubuskie 2012, 45). Also the Oder inland waterway (E-30) and the E-70 international waterway (Warta, Noteć rivers) shall be modernized and integrated into the European inland waterway system (Board of the Voivodeship Lubuskie 2012, 45).

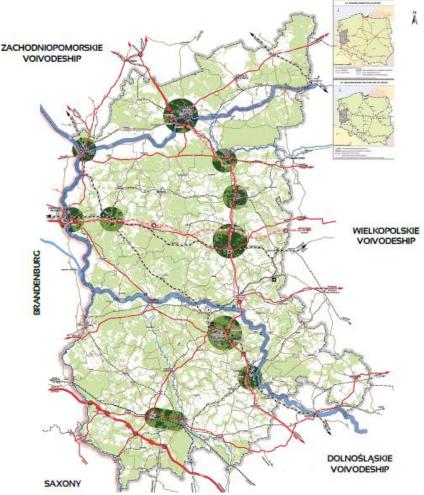


Image 42: Main transport tracks of Lubuskie as depicted in the LVDS 2020

Source: ibid., 98.

Also public transport shall be improved across borders, particularly the rail connections between Gorzów and Zielona Góra (PL) to Berlin (DE) (Ministerium für Infrastruktur und Entwicklung Polen

2014, 210; Board of the Voivodeship Lubuskie 2012, 39). The rail connection 14 between Żagań, Żary (PL) and Forst (DE) shall be modernized and expanded. Besides that, two rail tracks to Kostrzyn nad Odra are to be enhanced which is situated at the German border: CE59 (No.273) connecting Głogów - Zielona Góra and Kostrzyn and rail 203 Krzyz-Gorzów-Kostrzyn. Furthermore, the motorway A18 - which becomes the A15 in Germany - and two roads leading to that motorway are to be upgraded (road 27 from Zielona-Gora to Żary and road S3). It is considered to be an important connection to Germany (Board of the Voivodeship Lubuskie 2012, 58,136). Also the A2 – becoming the A12 in Germany, is to be upgraded (ibid., 97). A bridge is to be constructed across the Oder river to Germany in Kostrzyn nad Odra in coordination with Germany (see **Image 42**) (ibid., 98,136). Also the road 22 shall be upgraded to improve the transport to Germany (ibid., 135).

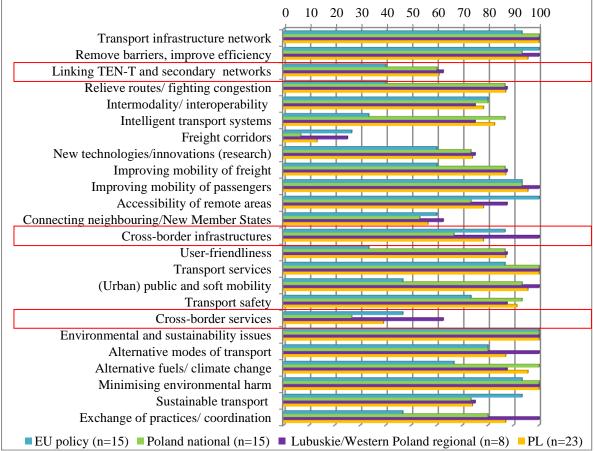


Figure 96: Contribution of the Polish policy objectives to EU policy transport-related objectives

Source: Author, Kaiserslautern, 2017.

When looking at the policy documents of the two different Polish administrative levels and their promotion of the different **cross-border transport-related objectives** (see **Figure 96**) it can be seen that the regional policies promote these objectives more than the national policies and the EU policies in all three objectives. Also the connection to new member states is promoted most by the regional level policies. Thus, the regional level attributes cross-border transport with a very high relevance. Still, according to Klauza, the national levels are very important for cross-border transport as well as they coordinate the transport investments across borders (Interview Klauza 2016).

The improvement of **cross-border infrastructures** is promoted by all regional policies and 67% of the national policy documents. The linkage of **TEN-T and secondary networks** is promoted by 63% of the Polish regional policies, and slightly less of the national policies (60%). Thus, both administrative levels promote it more than the EU policies. The objective of **cross-border services** is only mentioned by 39% of the Polish policies. However, at regional level 63% of the policy documents promote it. The

comparison shows, that cross-border transport is promoted most the regional policy documents. Klauza acknowledges the high importance of the regional policy documents, particularly, the 'Plan for a sustainable development of public transport in Lubuskie' and 'Transport development programme Region Lubuskie' for cross-border transport, as they promoted the expansion of cross-border transport to Germany. Thereby they are said to influence the cross-border transport to Brandenburg, but not to further regions or countries in long distance rail transport (ibid.).

Besides that, the region Lubuskie is said to **lobby** and convince the national level of the relevance of cross-border transport. Furthermore, they demanded the national level to add two more transport nodes on the North Sea Baltic corridor to enable the region to benefit more from the long distance infrastructures (Interview Nowicki 2016).

Taking into account **all EU transport policy objectives** the regional policies are in line with the EU objectives, only in few cases the national policies promote an objective more than the regional policies. Often the EU policies' support of the objectives is overcome by the Polish policies. Thus, the Polish administrative levels seem to consider the EU objectives to be very relevant.

As the Polish policies promote the cross-border related objectives stronger than the EU policies, the deviation from the EU policies (see **Table 65**) is rather high. Particularly, the promotion of cross-border infrastructures and services in the regional policies, however, is very similar to the EU policies. Therefore the EU policy objectives seem to overcome the national level in some cases and directly influence the regional levels.

Policy level	TEN-T and secondary networks	CB infrastructure	CB services	All categories	
Poland national (n=15)	20.0	20.0	20.0	20.6	
Poland regional: Lubuskie/ Western Poland (n=8)	22.5	13.3	15.8	19.7	
PL (n=23)	20.9	13.4	7.5	19.3	

Table 65: Average deviation of the Polish policies from the EU policies

Source: Author, Kaiserslautern, 2017.

Both, at regional and national level **concrete cross-border projects** were defined. 27% of the Polish national policies did so. These concerned road, railway, inland waterway, bicycle and bus transport and are thus, very diverse. Particularly, the IPPON document named many projects. No project was named twice. 75% of the regional policies defined concrete cross-border transport projects. Most of them were mentioned in the 'Plan for a sustainable development of public transport in Lubuskie' and the 'Lubuskie Voivodeship Development Strategy 2020'. They concerned road, rail and inland waterway transport as well as P&R infrastructures and rail service connections. Many infrastructure projects were mentioned already by the national policies and seem to have been adopted by the regional policies or vice versa. Thus, there seems to be a strong mutual relation and influence. Mainly projects which support transport service improvements vary from level to level. A list of concrete projects that were defined in the documents can be found in the **appendix**.

#### Cross-border cooperation policy documents

Also in the cross-border region Brandenburg-Lubuskie, respectively in a larger cross-border territory between Germany and Poland, several cross-border policy documents were developed which relate to cross-border transport. This underlines the relevance of cross-border transport and a high probability of transport challenges that need to be improved. Additionally, it acknowledges the expected role of cross-border regions to act as policy-entrepreneur.

All 15 cross-border policies which refer to transport are analysed in the following. It is differentiated between policies which were developed at transnational level -i.e. involving a larger territory within

which the cross-border region is located - and at cross-border local level, which only involves parts of the cross-border region Brandenburg-Lubuskie. In contrast to the Greater Region, no further cross-border <u>regional</u> policy documents were developed besides the INTERREG A Operational and Cooperation Programmes. This acknowledges that the cross-border region - as demarcated by the INTERREG programme - is not strongly institutionalised and does not have other functions than the EU programme administration.

Seven cross-border policy documents that are potentially relevant for the German-Polish cross-border region were developed at **transnational** level. Five of them solely focussed on transport, one is a spatial planning policy and the other is a development strategy (see **Table 66**). The aims of the relevant INTERREG B Operational and Cooperation Programmes (Baltic Sea Region and Central Europe) of the last and current funding period were already described in **chapter 5** and will therefore not be repeated. However, some programme areas - respectively some of their projects - developed additional transport strategies or studies which are analysed in the following. At **cross-border local** level eight policy documents were developed between 2006 and 2015. Four of them focus on the development of the cross-border regions, three are transport policy documents, whereas one document is a mixture between a spatial and transport planning document.

Admin.	Name of the document	CB-
level		transport
transnational	Weißbuch Öffentliche Personenverkehre zwischen dem Verkehrsverbund	
	Berlin-Brandenburg und Westpolen – Zukunft haben wir nur gemeinsam	yes
	(2011)	
	Macro regional Transport Action Plan by TransBaltic (2012)	yes
	Action Programme on the Development of the Scandria Corridor (2012)	yes
	Action Plan of the EU Strategy of the Baltic Sea Region (2015)	yes
	Abkommen über die gemeinsame Verbesserung der Situation an den	
	Wasserstraßen im deutsch-polnischen Grenzgebiet (2015)	
	Gemeinsames Zukunftskonzept 2030 Deutschland-Polen (2016)	yes
	EUSBSR Policy Area Transport Action Plan – Coordination Group final	yes
	proposal (2016)	<i>y</i> es
Cross-	Entwicklung- und Handlungskonzept der Euroregion Spree-Neisse-Bober	yes
border local	2007-2013 (2006)	
	Integriertes Verkehrskonzept Euroregion Pro Europa Viadrina (2008)	yes
	Integriertes Verkehrskonzept Euroregion Spree-Neisse-Bober (2008)	yes
	Ergebnisse der grenzüberschreitenden Zusammenarbeit auf dem Gebiet der Raumplanung und der Verkehrsinfrastruktur (2008)	yes
	Entwicklungs- und Handlungskonzept der Euroregion PRO EUROPA	yes
	VIADRINA 2007 (2013)	
	Grenzüberschreitendes Entwicklungs- und Handlungskonzept der Euroregion	yes
	Spree-Neiße-Bober / Sprewa-Nysa-Bóbr 2014-2020 (2013)	
	Entwicklungs- und Handlungskonzept der Euroregion PRO EUROPA	yes
	VIADRINA "VIADRINA 2014" (2013)	
	Analyse Verkehrsnetz Oder-Neiße (AVerON) (2015)	yes

Table 66: Transnational policy documents of Brandenburg-Lubuskie

Source: Author, Kaiserslautern 2017.

All cross-border policies, except of one, mention cross-border transport (93%). One transnational policy solely treats inland-waterway transport without cross-border relation. 86% of the transnational policies and all cross-border local policy documents relate to cross-border transport.

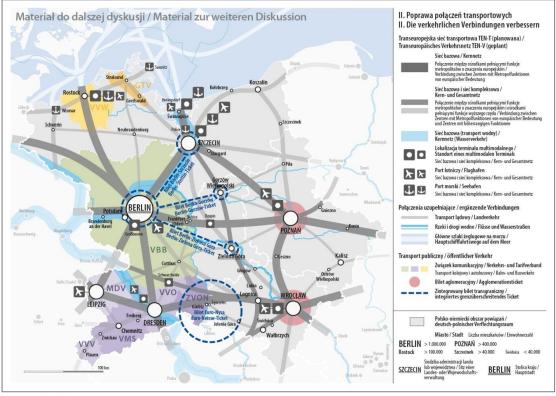
The TEN-T are mentioned by 60% of all documents. Their relevance on the two different cross-border policy levels is very similar: 57% of the transnational policies and 63% cross-border local policies mention the TEN-T.

The **degree of detail of the aims** in terms of cross-border transport and the TEN-T varies between the documents. Some - particularly the transnational policies - define very general transport aims.

In the following, the **cross-border transport relations** of two selected cross-border policies are presented in detail. These were developed at transnational level and at cross-border local level: the transnational spatial planning policy document *Gemeinsames Zukunftskonzept 2030 Deutschland-Polen* and the *Integriertes Verkehrskonzept Euroregion Spree-Neiße-Bober*, a cross-border local transport policy document of the Euroregion Spree-Neisse-Bober. The other policy documents' reference to cross-border transport can be found in the **appendix**.

The Common Vision Paper between Poland and Germany *Gemeinsames Zukunftskonzept 2030 Deutschland-Polen* involves the German regions Mecklenburg-Vorpommern, Brandenburg, Berlin and Saxony as well as the Polish Voivodeships Lower Silesia, Lubuskie, West Pomerania and Greater Poland. It was developed by the German-Polish *Regierungskommission* for regional and cross-border cooperation in 2016. The document is based, among others, on the German *Leitbilder für die Raumentwicklung* and the Polish 'National Spatial Development Concept 2030'. Also regional and European policy documents were taken into account. The public was invited to comment on the draft until mid September 2016. The concept was finalised in the end of 2016 (Ausschuss für Raumordnung der Deutsch-Polnischen Regierungskommission für regionale und grenznahe Zusammenarbeit 2016). The concept considers the border rivers Oder and Neisse to be a very relevant axis for the cross-border region between Germany and Poland. One of the development guidelines aims at improving the transport connections (see **Image 43**).



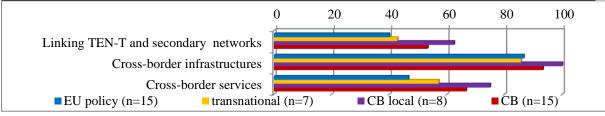


Source: ibid., 12.

The connection in the cross-border local and long-distance transport shall be further expanded. All defined centres shall be mutually interconnected not only by road but also by direct train connections. This shall reduce travel times and make the offer more attractive. Additionally, cross-border bus connections shall complement the rail services. Depending on the demand, transport services shall be

expanded and common ticketing systems developed. Thereby transport shall be better coordinated across the border. Existing cross-border road bottlenecks or missing cross-border road links shall be removed. Common concepts to navigate heavy goods traffic across the border shall be developed to minimize the negative environmental effects and increase transport safety. Also the TEN-T connections to the ports are to be implemented further. A common marketing shall promote the existing cross-border transport connections and logistical offer. Until 2030 the TEN-T core network shall be fully in place. Besides that, also the common inland waterways are to be used more strongly by freight transport to contribute to more environmental friendly transport. Also here a common concept is to be established to increase the importance of inland waterways in the Polish-German border region (ibid., 12f.).

The Integriertes Verkehrskonzept [integrated transport concept] Euroregion Spree-Neiße-Bober of 2008 promotes transport enhancement between Zielona Gora and Cottbus. This shall be of benefit for the whole cross-border region. Bus connections are to be expanded. The connection of Zielona Gora to Berlin via an European transport corridor shall be promoted. The region shall be connected via rail to a transnational connection between Berlin, Warsaw and Moskow. A bus line between Guben and Zielona Gora shall be established because of missing train connections. Guben and Cottbus as well as Frankfurt/Oder should be connected by an attractive rail service (Helland et al. 2008, 38). Transport service connections should increase their frequency and minimize travel times and should be coordinated and linked better across borders. The internal transport network shall be connected via certain nodes to the European transport axes. Also the long-distance rail connection between Berlin and Wrocław is to be maintained (ibid., 38f.). Besides that, further concrete projects were defined. Some of them concern solely national investments in the border vicinity (ibid., 47ff.). The train stations shall be modernized and updated to European standards. They should improve their intermodality and offer the connection to other transport modes (ibid., 39). A common cross-border information system and marketing are to be established for the public transport offer. Additionally, common tariffs shall be established (ibid., 41). The transport information system should be bilingual. The information about different driving rules in the two countries should be enhanced (ibid., 45). The bicycle network along the Neisse river is to be expanded on both sides of the river and connected through bridges (ibid., 42).



#### Figure 97: Contribution of the cross-border policies' objectives to EU policy transport-related objectives

Source: Own depiction, Kaiserslautern, 2017.

As can be seen in **Figure 97** the cross-border policies promote **cross-border transport** more than the EU policies. The comparison of the two cross-border policy levels shows that the cross-border local policies promote cross-border transport more than the transnational and EU policies in all three objectives. Thus, the cross-border local policy documents promote the enhancement of cross-border transport to a strong degree.

The **linkage of TEN-T and secondary networks** is promoted by 43% of the transnational documents. Thereby the transnational cross-border documents are very similar to the EU policies' promotion of this objective. Even 63% of the cross-border local policies promote it. **Cross-border infrastructures** are promoted by 86% of the transnational and all cross-border policies. The improvement of **cross-border services** is promoted by 57% of the transnational policies and 75% of the cross-border local policies.

When looking at the deviation of the two cross-border policy levels from the EU policies (see **Table 67**), the transnational policies are most similar to the EU policies, however, the cross-border local

policies deviate solely more because they promote the objectives stronger than the EU policies. The high deviation in the enhancement of cross-border services shows a higher relevance of this objective in the cross-border reality than at EU level. Compared to the average deviation in all transport-related EU objectives, the deviation in the field of cross-border transport is rather low.

Policy level	TEN-T and secondary networks	CB infrastructure	CB services	All categories	
transnational (n=7)	2.9	1.0	10.5	15.6	
CB local (n=8)	22.5	13.3	28.3	30.5	
CB (n=15)	13.3	6.7	20.0	20.8	

 Table 67: Average deviation of the cross-border policies from the EU policies

Source: Author, Kaiserslautern, 2017.

When looking at the transnational policy results, it needs to be kept in mind that most of the policies were not developed in cooperation of more states than Poland and Germany because transnational cooperations are often very large. Thus, additional external interests might be included in the policy documents.

The Common Vision Paper of the German-Polish cross-border region which was developed by a cooperation of the national and regional levels is said to be the first attempt to develop a spatial strategy for the border area. However, it does not define concrete guidelines but shall be considered as **political background paper** and **argumentation basis** on which concrete investments decisions into transport infrastructure and services can be taken (Interview Sauer 2016). Kray thinks that the Vision Paper might contribute to a common idea for the transport development as it defines cross-border transport development guidelines. However, it is not binding and contains a larger area than the cross-border region Brandenburg-Lubuskie (Interview Kray 2016). Still Sauer considers the document to be relevant as it was developed jointly by Poland and Germany. Besides that, the document states that cross-border transport shall be improved (Interview Sauer 2016). Other stakeholders consider the document's influence on concrete cross-border transport projects to be low because of its very abstract and not concrete nature. The subregional planning authorities and cross-border authorities hope that the document will be brought closer to reality. The document could become the potential **basis for future transport coordination** (Interview Kramer 2016; Interview Schiwietz 2016).

According to Schiwietz, the development of common cross-border local policy documents in the *Euroregion PRO EUROPA VIADRINA* has fostered the **exchange across borders** to develop a better **understanding** of the transport aims that exist on both sides of the border (Interview Schiwietz 2016). Furthermore, the policy documents, developed by the Euroregions, are said to partially influence the contents of German **subregional planning policies** (Interview Ullrich 2016).

The cross-border integrated transport concept of the *Euroregion Spree-Neisse-Bober* was developed by the cooperation members and social and economic partners from both sides of the border with relations to the field of transport as well as the regional planning of Brandenburg. The interests of the involved partners were brought together and defined in a **common agenda**. Out of this it is hoped that **concrete transport projects** will be developed (Interview Markus 2016). With the concept also the **transport committee of the German-Polish Governmental Commission** shall be influenced so that it fosters the cross-border region's accessibility to the transport large scale transport corridors and the development of missing links (ibid.).

At **cross-border local** level much more policy documents defined **concrete cross-border projects** than at transnational level. Only one of the seven **transnational policies** defines concrete cross-border transport projects. This is probably due to the large size of the transnational cooperation spaces. 63% of the cross-border local policy documents defined concrete cross-border projects. Most concrete projects

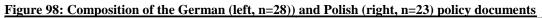
were defined by the two integrated transport concepts of the two Euroregions and the AVerON document.

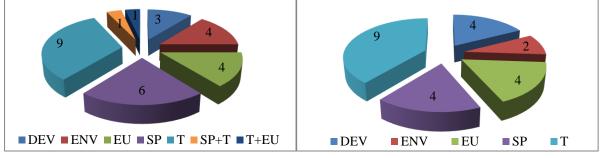
The next section compares the contribution of the cross-border policy documents and the domestic policy documents to cross-border transport.

# Contribution of domestic and cross-border policy transport documents to cross-border transport

This section compares the promotion of cross-border transport in the German and Polish policies and the cross-border policies. In total 51 domestic policies and 15 cross-border policies were analysed.

The composition of the analysed domestic policies in the two countries is very similar (see **Figure 98**). However, differences exist between the administrative levels. The German national policies analysed contain more environmental policies and less transport policies than in Poland. Additionally, no German but two Polish development policies were analysed. This might have led to different tendencies on the two administrative levels. As the overall composition is rather balanced, the national averages can be compared without thought.

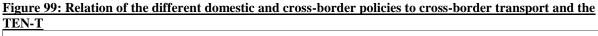


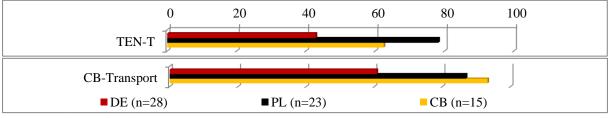


Source: Author, Kaiserslautern, 2017.

When comparing the relation of German, Polish and cross-border policies to cross-border transport and the TEN-T (see **Figure 99**) it can be seen that the German policies mention the TEN-T and cross-border transport least. The Polish policies mention the TEN- most and the cross-border policies relate to cross-border transport most. The Polish policies' relation to cross-border transport is little lower.

The Polish and German regional policies mentioned the TEN-T and cross-border transport more frequently than the national policies. The TEN-T are promoted most by the policies developed in cooperation with the EU (78%). Cross-border transport is mentioned most in spatial planning policies (91%) and the EU related policies (89%). Both fields are mentioned least by the specialised environmental and development policies.





Source: Author, Kaiserslautern, 2017.

When comparing the German and Polish policies' contribution to the three categories relevant for **cross-border transport** (see **Figure 100**) it can be seen that the Polish policies promote all objectives more than the German policies. The difference is particularly noticable in the promotion of **cross-border infrastructures**. 78% of the Polish and 46% of the German documents promote this objective. The EU

promotes **cross-border services** and infrastructures more than both domestic policies. However, the cross-border policies support these two objectives more than the EU policies. The **linkage of TEN-T and secondary networks** is more relevant in the domestic policies – particularly in Poland. Also the cross-border policies promote this objective more often than the EU policies. From the three cross-border transport-related objectives, the enhancement of cross-border infrastructures is promoted most by the domestic policies. It is also the most frequently mentioned objective in the EU policies.

In Germany **cross-border infrastructures and services** are promoted most by the subregional policy documents – in Poland the same applies for the regional level (Poland does not develop transport-related policies at subregional level). The **linkage of TEN-T and secondary networks** is promoted most frequently by the German regional policy documents. In Poland there is not a strong difference between the national and regional documents. This shows that because of the different **hierarchical structures** and policies of the two countries there is a difference between the relevance of cross-border transport on the administrative levels. These differences might hamper a coordination and common promotion of these objectives across borders. At the same time, as the subregional level in Germany does not have competences to develop cross-border services and solely subregional roads (see **Table 60** and **Table 61**) the policy objectives are not related to a direct implementation possibility of the administrative level. The regional Polish level has several competences in the field of infrastructures and services which it promotes strongly. However, it cannot develop regional railroads as this is a national competence. This fact shows that the **level of concernment** might be very high on these levels. With the promotion of these objectives they might hope to **convince the higher administrative levels** of the relevance.

<u>njecuves</u>											
	0	10	20	30	40	50	60	70	80	90	100
Transport infrastructure network				i				i			
Remove barriers, improve efficiency											
Linking TEN-T and secondary networks						_					
Relieve routes/ fighting congestion										-	
Intermodality/ interoperability											
Intelligent transport systems					-				-		
Freight corridors				•							
New technologies/innovations (research)				_		_					
Improving mobility of freight											_
Improving mobility of passengers											.
Accessibility of remote areas							_	-	-		
Connecting neighbouring/New Member States				-		_	-				
Cross-border infrastructures										•	
User-friendliness					-			_		-	
Transport services					-		-		-		_
(Urban) public and soft mobility							-				•
Transport safety										_	
Cross-border services						•					
Environmental and sustainability issues		-	-		-		-	-			
Alternative modes of transport		-			-		-	-	-	-	
Alternative fuels/ climate change		-	-		-	•					•
Minimising environmental harm		-			-	-			-	-	_
Sustainable transport		-	-		-			_		-	
Exchange of practices/ coordination	-	<u> </u>	-	-	ļ	•		<u> </u>	_	<b>_</b> ]	
■ EU policy (n=15) ■ DE (n=	=28)	*	-	∎PL (	(n=23	)	÷	CE	<b>B</b> (n=1	5)	-

Figure 100: Contribution of the domestic and cross-border polic	cies to EU policy transport-related
objectives	

Source: Author, Kaiserslautern, 2017.

The Polish policies show the lowest **average deviation** from the cross-border related EU policy objectives (12.3%) (see **Table 68**). The German policies deviate most (21.6%) because of high deviations in the objectives which concern cross-border infrastructures and services. This is because the German policy documents promote cross-border transport very little compared to Poland.

The German policies, however, show the lowest deviation from <u>all</u> **transport-related EU transport objectives** (15.3%). The cross-border policies deviate most (20.8%) - but not much more than the Polish policies (19.3%). The cross-border policies promote some objectives very frequently whereas others seem not to be relevant in the cross-border realm. In most cases, however, they are in line with the EU policies' promotion of these objectives (see Figure 100). As was shown earlier, the higher Polish policies' deviation compared to the German policy documents is due to a strong promotion of almost all EU transport-related objectives in the national policies which exceeds the degree of promotion of the EU policies (see Figure 100).

Policy level	TEN-T and secondary networks	CB infrastructure	<b>CB</b> services	CB aims average	All categories	
<b>DE</b> (n=28)	2.9	40.2	21.7	21.6	15.3	
PL (n=23)	20.9	8.4	7.5	12.3	19.3	
<b>CB</b> (n=15)	13.3	6.7	20.0	13.3	20.8	
Source: Author Veicersloutern 2017						

Table 68: Average deviation of the member states' policies and cross-border policies from the EU policies

Source: Author, Kaiserslautern, 2017.

The varying support of EU objectives in both countries shows that the countries' focus on the EU objectives is different and not coordinated. According to Kray, the national transport ministries of Poland and Germany coordinate their investments in transport infrastructure to a certain degree. This became necessary when the TEN-T corridors were defined. Besides that, the annual German-Polish governmental consultations were accompanied by meetings of the different sectoral ministers (Interview Kray 2016). Also Dill thinks that the transport objectives on both sides of the border are coordinated and similar because of the long-standing exchange in the different German-Polish committees on crossborder transport (Interview Dill 2016). In the domestic policy documents, however, differences can be detected. Nowicki, Sauer and Neumann also stated that the Polish and German transport objectives would be similar (Interview Nowicki 2016; Interview Sauer 2016; Interview Neumann 2016). However, Poland is said to focus its investments on road transport infrastructure instead of public transport (Interview Nowicki 2016; Interview Sauer 2016). Furthermore, Polish transport users were strongly focussed on individual motorized transport instead of rail transport. However, lately they are said to try to promote alternatives to the individual car because of urban congestions. The rural regions, though, strongly rely on the car. Furthermore, Poland is said not to invest strongly in the expansion of public transport (Interview Kray 2016). When looking at the statistical findings (see Figure 100), it is acknowledged that the Polish policies promote the improvement of transport infrastructures more than the alternative modes of transport. However, the same applies to the German analysed policy documents. Even a higher percentage of the Polish policies mentions the latter aim. Additionally, the improvement of transport services is defined as an objective by all analysed Polish documents. Thus, the difference reported by the interviewed stakeholders cannot be acknowledged in terms of policy documents. However, there might be difference between the policydocument's ambitions and transport practice. The statements of the interviewed stakeholders related to concrete investments. This shows that the influence of the policy documents on the practice can be constrained.

Furthermore, the Polish and German opinions on the Oder river development are said to vary strongly. Germany is said to favour the development close to the natural conditions. Poland, however, is said to want to upgrade the Oder river to an inland waterway (Interview Neumann 2016; Interview Schiwietz

2016). The statements of the interviewed stakeholders show that some differences between the two countries, particularly in practice, seem to exist.

Having a look on the different policy types' contribution to the three cross-border transport-related objectives it can be seen that the linkage of TEN-T and secondary networks was promoted most by the domestic transport policies (70%) and by the EU related documents (67%) and least by the environmental and development policies (36%). Surprisingly also the contribution of the spatial planning documents was very low (36%). The enhancement of cross-border infrastructures was mentioned most frequently by the spatial planning documents (82%), followed by the transport documents (75%). It was mentioned least by the environmental and development policies (30.8%). The improvement of cross-border services was not mentioned frequently in any of the policy types. 45% of the spatial planning and transport policies promoted this objective which was the highest ratio. It was mentioned least by the EU related policies (11%) and the environmental and development policies (15.4%). Hence, each of the three objectives was supported most by different types of policy documents. The most stable support of all three objectives came from the pure transport policies. Also the spatial planning documents supported cross-border transport frequently, but mentioned the connection between TEN-T and secondary networks less allthough they often referred to the TEN-T in general. The lowest support came from the environmental and development policies. They are specialised in different themes.

The Polish documents (43%), followed by the the cross-border policies defined most frequently **concrete cross-border projects**. Only 21% of the German policies defined concrete projects. In total less than 50% of the policies did so (see **Figure 101**).

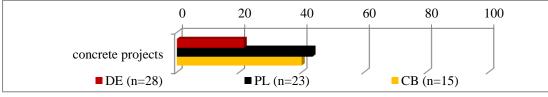


Figure 101: Definition of concrete projects in the policy documents

Source: Author, Kaiserslautern, 2017.

The higher level of concreteness might indicate a higher implementation plausibility of the Polish policy objectives. Most policies which defined concrete policies were produced at regional level in Poland and subregional level in Germany - thus, at the lowest supralocal level (see **Table 69**). The same two administrative levels produced the policy documents which supported the enhancement of cross-border infrastructures and services the most.

	national	regional (BB)	subregional
DE	8%	27%	67%
	national	regional	
PL	27%	75%	

Source: Author, Kaiserslautern, 2017.

Most often the spatial planning documents defined concrete projects (64%), followed by the transport policies (35%).

According to Klauza, both national levels are important for cross-border transport as they would coordinate the transport investments across borders (Interview Klauza 2016). Overall, Poland promotes cross-border transport - both in the objectives and in terms of concrete projects - more than the German documents. Thus, the cross-border documents' strong focus on these issues might have been strongly lobbied by the Polish side as the Polish documents resemble them most. However, the strong cross-

border policies' support of cross-border transport is most probably related to the focuse of these policies on cross-border cooperation and not on national issues.

The cross-border policy documents have defined very ambitious objectives. However, this does not mean that these are easily implemented. The next section describes challenges which hamper the development and implementation of (cross-border and domestic) policy documents and discusses their direct influence on cross-border transport.

### Challenges in the development of cross-border policies and the influence of the domestic and cross-border policies on cross-border transport

In this section the challenges which hamper the development of common cross-border policies and the influence of domestic and cross-border policies on cross-border transport are described based on the challenges perceived by the interviewed stakeholders in their working practice.

#### Challenges in the development of cross-border policies and the coordination of domestic policies

In the **development** of common development goals and projects the Polish and German sides sometimes are said to have **different aims** due to a different **status quo** of the transport system. The Polish transport system is considered to be still lacking behind the German standards (Interview Nowicki 2016; Interview Markus 2016). Therefore the transport needs are different which could complicate cross-border cooperation and the agreement on consensus in cross-border spatial planning. Often the cooperation would be based on the lowest common denominator (Interview Markus 2016). This is acknowledged by several interviewed stakeholders. Independent of the needs, both countries are said to follow different transport focuses, e.g. the improvement of roads in Poland versus the promotion of public and rail transport combined with the reduction of CO<sub>2</sub> emissions in Germany. Also the opinions on the development of the Oder river are said to diverge strongly (Interview Nowicki 2016; Interview Sauer 2016; Interview Kray 2016; Interview Neumann 2016; Interview Schiwietz 2016). Different development focuses and a missing coordination were also observed by Kray in the investment in railway infrastructures where a connection via Dresden to Berlin was favoured by the Polish side instead of further investments in the track via Cottbus. The latter, geographically most direct connection, however, was favoured by the Geman regional level of Brandenburg (Interview Kray 2016). These different focuses are said to complicate the development of concrete common objectives in cross-border policies.

In general, the definition of transport-related priorities is said to be strongly **dominated** by the **national levels** and their perceived needs. They were often unaware of the transport aims of their neighbouring countries and focussed mainly on transport improvements on their own territory (Interview Wierzbicki and V. Griekere 2016) which is said to lead to an uncoordinated development because of missing common cross-border coordinating policy documents.

**Differences** in the **administrative responsibilities** and state hierarchies are said to further complicate the development of a coordinated development strategy across borders. The German subregional planning levels miss an equivalent planning level on the Polish side which hampers an effective direct coordination of their plans across the border. The subregion *Lausitz-Spreewald* is said not to have any contacts across the border. The voivodeship is considered to mainly communicate with Brandenburg and the subregional planning level is said to be involved partially only. The subregions solely assisted the German regional level by preparing some inputs (Interview Ullrich 2016).

The above described patterns can be intepreted as a type of **path dependency** of domestic institutions and **planning cultures** which seems to have hindered the development of the cross-border policies.

Additionally, two stakeholders from the subregional planning administration in Germany criticized the missing relation between the developed cross-border concepts and their administrative level. They were

not informed about the development of local cross-border strategies and not integrated in the development process (Interview Ullrich 2016; Interview Kramer 2016). This practice, in turn, illustrates the disengagement of developed cross-border policies and certain administrative levels, i.e. domestic institutions. It is said to hamper an effective coordination of the transport development as relevant actors were excluded (Interview Ullrich 2016; Interview Kramer 2016). The **subregional planning levels** are said not to be integrated into the work of the Polish-German Spatial Planning Committee as it is composed of regional and national planning administrations only. This is said to hamper the implementation of the developed concepts. An early involvement could facilitate the implementation (Interview Kramer 2016). This criticism shows a potential barrier for more effective cross-border coordination as interested and concerned bodies seem to be excluded from cooperation although they would be a strong promoter of the concept's implementation.

#### Challenges in the influence of the domestic and cross-border policies on cross-border transport

According to Kray, some produced policy documents of the cross-border committees are said not to have a strong external **visibility**. This might minimize their **influence** (Interview Kray 2016).

The two **Euroregions**, which developed several cross-border policies, bring up the challenge that the implementation of the cross-border policies developed by them cannot be enforced because they do not have any **competences**: the Euroregion Spree-Neisse-Bober, for instance, could not decide about the reintroduction of the cross-border rail connections between Wrocław and Berlin although it is said to be very relevant for the regional cross-border transport. Therefore it tried to convince the higher administrative levels which are competent (Interview Markus 2016). Also the Euroregion PRO EUROPA VIADRINA is said to try to facilitate the exchange of aims across the border and communicate the common aims to the outside but cannot directly influence the implementation of transport projects because the national competent levels and stakeholders take the final decision (Interview Schiwietz 2016). This shows, that in general the **importance of the developed transnational institutions** is high, however, missing competences, minimize the potential influence of the developed cross-border cross-border policies on their practical implementation.

However, the problem of competences is also experienced in the administrative sphere of the traditional institutions. The German subregional planning authority of *Oderland-Spree* is said not to be able to directly steer the cross-border transport development because of missing competences, however, it aims at promoting the aims of its counties (*Kreise*) on the upper responsible German levels (Interview Kramer 2016). Also on German local level municipalities are said to often need an **authorization** by the regional or national level for the implementation of their transport development objectives. This is said to hamper a fast implementation (Interview Markus 2016). When rail infrastructures investments with cross-border relevance are concerned even the German regional level is said to rely on the decision of the national level (Interview Kray 2016). This shows that the **dependence on state hierarchies and competences** leads to longer and more elaborate processes and hampers a flexible implementation in practice and thus a more efficient cross-border transport. However, the final evaluation on the influence of the EU policies on the cross-border practice in the case study will be conducted in **chapter 6.4.5** based on an analysis of implemented projects.

The **political will** is said to be very important for the implementation of a cross-border project which is challenged by frequent personal changes after political **elections** during a long-term implementation process. Therefore, cross-border concepts needed to be **updated** regularly **and called to mind** (Interview Markus 2016). Still, the German local level politicians are said to be very motivated to contribute to a better cross-border cooperation with Poland (ibid.). However, it is questioned if the national Polish level actively supports the sparsely populated border areas. The investments are

considered to be strongly focussed on inner-Polish road infrastructures. It might hamper additional investments into cross-border transport because of scarce funds (Interview Ullrich 2016).

Furthermore, the implementation of coordinated aims is said to differ strongly between Brandenburg and Lubuskie because of **different financial capacities and competences** (Interview Neumann 2016). Dill considers the influence of the documents and agreements taken by the different German-Polish committees on cross-border transport to be rather low because of the lack of financial means – in particular on the Polish side. Therefore, no large infrastructure projects could be decided in these documents (Interview Dill 2016). Still besides the influence of the policy documents on practice, the process of developing cross-border documents is evaluated by the interviewed stakeholders to be very important.

The discussion of the interviewed stakeholders shows that the implementation of cross-border policies is influenced by the composition of actors and levels involved in the coordination of transport development and their competences as the current configuration of these two issues is criticized by several interviewees. Furthermore, financial constraints can hamper the implementation and influence on cross-border transport.

This analysis gives a first overview on the support of cross-border transport in the different administrative levels policies and cross-border policies. After a final evaluation of the influence of the EU policy on the domestic and cross-border policy documents in the next section the analysis will go a step further and look into concrete cross-border projects and initiatives which have been implemented in the field of cross-border transport within the case study area.

# 6.4.4 Formal influence of the EU policy on domestic and cross-border policy transport documents

This section evaluates the formal implementation of the EU policy objectives in the domestic and crossborder policy transport documents. The domestic and cross-border policy transport documents were presented in the last section. The evaluation is based on statistical data which was won in the document analysis and expert interviews with persons working in the different transport, spatial planning or crossborder cooperation administrations of the involved member states or cross-border cooperation bodies. The assessments of the experts are compared with the statistical findings. Hereby it is differentiated between the national, regional and subregional administrative levels. Additionally, the EU influence on the cross-border policies is evaluated. The main focus is laid on the promotion of cross-border transport.

#### Influence of EU policies on national policies

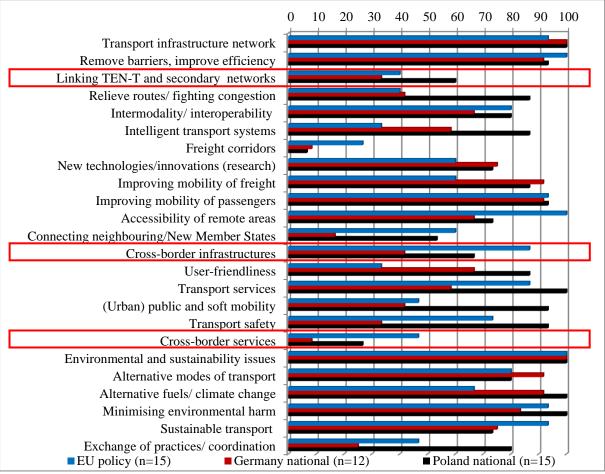
When comparing the EU influence on both countries' national policy documents it needs to be kept in mind that the composition of policy documents which were analysed at national level varies. The German national policies contain more environmental polices, and less pure transport policies. In contrast to Germany the Polish documents contain some development policies. Figure 102 shows that several objectives were promoted strongly by the EU and the national policies. However, there are also objectives which were less promoted despite being relevant in the EU policies such as cross-border services and cross-border infrastructures. Other objectives that were mentioned in a low number of EU policy documents are promoted more by the domestic policies – particularly in the Polish documents. Thus, the EU influence does not seem to exist in every case. Besides that, the Polish national policies are more similar to the EU objectives than the German policies.

The Polish national level is said not to efficiently promote sustainable transport and the reduction of  $CO_2$  emissions (Interview Kray 2016). The statistical analysis of the national policy documents shows, that 'sustainable transport' was promoted little less frequent than in the German policies. However, the Polish policy documents promoted the reduction of  $CO_2$  emissions (objective 'alternative fuels/climate

change') more often than the German policies (see **Figure 102**). Still, the statement leads to the assumption that even though policy documents promote an objective strongly, this does not mean that it is implemented in practice.

The average deviation of the Polish (20.6%) and German national policies (20.1%) from all transport objectives is very similar. However, in most case when the Polish policies deviate they promote the EU objectives more than the EU policies. Only in five cases of strong deviation, the Polish policies promote the objectives less than the EU policy documents. When the German documents deviate, however, they remain eleven times below the EU's relevance. Therefore the deviation of the Polish policies is considered to be rather positive in terms of EU influence because the objectives are promoted further. This is acknowledged by Klauza. The EU policies are said to influence the national (Polish) policies much. The latter are said to react on the EU's recommendations (Interview Klauza 2016).

Figure 102: Contribution of the German and Polish national administrative level policies to the EU policy transport-related objectives



Source: Author, Kaiserslautern, 2017.

In the objectives relevant for **cross-border transport**, however, the EU influence on the national level's policies seems to be constrained. Only the linkage of the TEN-T and secondary networks is mentioned by a higher percentage of the Polish national policies than EU policies. Besides that, the national policies deviate much. According to Kissler, the national policies should integrate the EU TEN-T objectives more, refer to the corridors and priority projects and develop them further. A certain approximation of European and national objectives is said to have been taken place so far (Interview Kissler 2016) when the **routing of the corridors** was decided as the member states had to coordinate their priorities. The member states had to ensure their **commitment** for the implementation of the EU standards on the national axes in order to incorporate the axes into the core network. Thus, the EU did not prescribe the

transport development, but the member states were consulted first (Interview Kray 2016). This integration in the domestic policy documents seems to have at least taken place in the Polish policies.

Also Sauer sees an influence of the **TEN-T Policy** on the German national planning guidelines (*Leitbilder der Raumentwicklung*). In the draft document of the national guidelines no northern transport connections from Berlin were depicted. They were added after the adoption of the new TEN-T guidelines which foresaw a TEN-T corridor on this territory (Interview Sauer 2016). Kramer acknowledges the strong focus of the German transport investments on the TEN-T corridors (Interview Kramer 2016). Both, Germany and Poland are considered to strongly support the Baltic Adriatic Corridor. However, a joint transnational support of the east-west North Sea Baltic corridor between the member states concerned is said to be missing (Interview Schiwietz 2016).

In some fields, however, the EU influence has been rather low: the EU objective to develop a European common rail traffic management and control system which has been supported by the definition of common norms and guidelines has not been implemented efficiently by the member states so far. Instead the member states would prefer their **existing national system.** This strongly hampers rail transport across borders (Interview Neumann 2016).

In general, many EU policies are said to have been influenced by the national levels as well (ibid.) so that they might have uploaded some of their national objectives at EU level which were then integrated in the EU policies. Thus, some objectives might have existed in the domestic policy documents already before their promotion in the EU policies'. This needs to be kept in mind when the EU influence is evaluated.

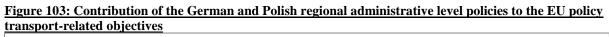
#### Influence of EU policies on regional policies

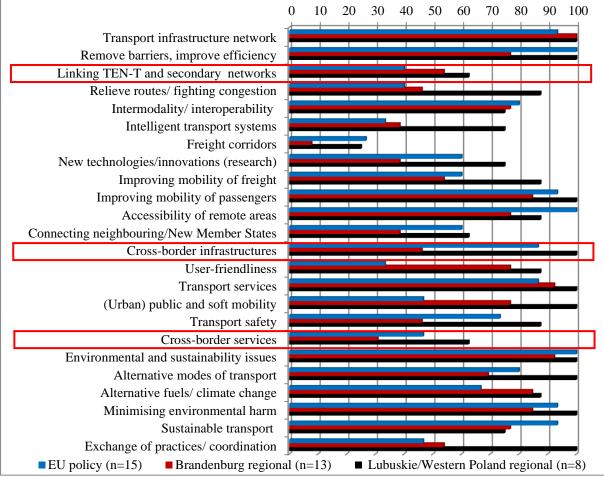
The regional policies of the two countries analysed consist of a different number of documents: eight Polish regional policies and 13 policies from Brandenburg were analysed. However, the composition is rather similar – the German policy documents consist of slightly more regional transport policies and the Polish policies of more EU related policies.

**Figure 103** shows that the **promotion of the EU transport objectives** at the regional level varies strongly between the two countries. Sometimes EU objectives are strongly fostered, in other cases they are promoted less. In general, the regional policies are more similar to the EU policies than the national policies. The German and Polish regional policies deviate only 16.2% respectively 19.7% from the EU policies' promotion. Again, the Polish policies deviate much because they support the objectives in most cases to a higher degree than the EU policies themselves. Only two objectives are significantly not promoted as much as at the EU level. The German regional policies, however, often remain under the EU average and thus, seem to be less influenced by the EU policies. The German regional policies particularly deviate in the enhancement of cross-border services and infrastructures. In most cases when the German national policy documents deviate from the EU policies, the regional level policies do not deviate much. This might indicate that there is a direct influence of the EU policies on the German regional level independent from the national level policies' support.

The **TEN-T corridors** are said to have an influence on the German regional spatial planning policy documents as well. Their implementation and integration in the residual transport system is to be supported. Additionally, concepts could be developed to connect further places and regions via secondary transport networks to the TEN-T (Interview Kray 2016). Additionally, as already stated earlier, when proposing the expansion of national roads at regional level, the **TEN-T network** was used as a **basis for argumentation** (Interview Sauer 2016). Compared to the national level policies, the regional policies promote the **linkage of the TEN-T and secondary networks** more often. Additionally, the EU TEN-T coordinator of the North Sea Baltic corridor is said to aim at developing

synergy effects with the regional transport networks. Therefore, the coordinator would be involved in the decision-making process on regional transport projects (Interview Kissler 2016).





Source: Author, Kaiserslautern, 2017.

#### Influence of EU policies on subregional policies

As there is no subregional administration level in Poland, a comparison between the policy documents of the two countries could not be drawn and the results are only based on the low number of German subregional policy documents. The comparison to the EU policies' objectives was already drawn in the previous **chapter 6.4.3** when the German policy documents were described.

The subregional policies promote the cross-border transport-related objectives to a rather high degree. Particularly cross-border services are promoted more frequently than in the EU policies. Cross-border infrastructures are promoted more than by the other German administrative levels.

The average deviation of the subregional policies from all transport-related EU policy objectives, is, compared to the other administrative levels relatively high (27.5%). Thus, the direct influence of the EU policies seems to be rather low. This result is acknowledged by Ullrich, who thinks that the German subregional planning level is not directly influenced by EU objectives. Instead the subregional plans would be developed on the basis of the regional policy documents' objectives, particularly the objectives of the *Landesentwicklungsprogramm*. These need to be integrated or concretized by the subregional plans. Still there might be an indirect EU influence (Interview Ullrich 2016). Many EU objectives are not supported much by the subregional level. Still, as stated above some EU objectives are more relevant at subregional level than in the other German policies such as cross-border services and infrastructures.

Because of the high irregularity of the subregional policies' contribution to the EU objectives a direct influence from the EU policies at the subregional's strong promotion of cross-border transport cannot be proved.

The next section compares the influence of the EU policies on the domestic policies during the two different EU funding periods.

#### Influence of EU policies on domestic policies during the two different funding periods

The domestic policies' relation to the EU objectives developed between 2007 and 2013 (see **Table 70** and **Figure 104**) is a little more similar than the relation of the policy documents developed during the second funding period (2014-2020). This applies particularly to the cross-border related objectives.

 Table 70: Average deviation of the German and Polish domestic policies from the respective EU policies

 depending on the funding period

Funding period	TEN-T and secondary networks	CB infrastructure	CB services	All categories
2007-2013	4.0	28.0	12.0	16.0
2014-2020	14.4	31.9	20.4	18.0

Source: Author, Kaiserslautern, 2017.

### Figure 104: Contribution of the German and Polish policies to the EU policy transport-related objectives 2007-2013 (left) and 2014-2020 (right)

	0 20 40 60 90 100	0 20 40 60 80 100
	0 20 40 60 80 100	
Transport infrastructure.		
Remove barriers, improve		
Linking TEN-T and	56	
Relieve routes/ fighting		
Intermodality/ interoperability		
Intelligent transport systems		
Freight corridors		
New		
Improving mobility of freight		
Improving mobility of.		
Accessibility of remote areas		
Connecting.		
Cross-border infrastructures	-72	48
User-friendliness		
Transport services		
(Urban) public and soft		
Transport safety		
Cross-border services		30
Environmental and		
Alternative modes of transport		
Alternative fuels/ climate		
Minimising environmental		
Sustainable transport		
Exchange of practices/	* / / / / /	
EU policy	All domestic policies	EU policy. All domestic policies.

Source: Author, Kaiserslautern, 2017.

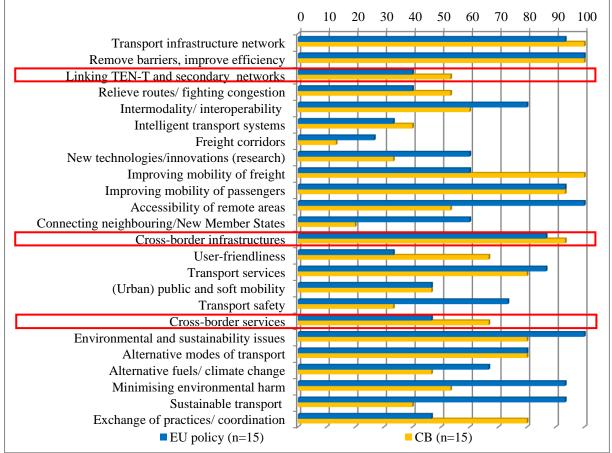
However, the overall deviation did not change much in the two funding periods despite changes in the EU policies. When comparing the changes between the two funding periods a direct EU influence seems to exist in the case of the enhancement of **cross-border infrastructures and services** because the change of relevance in the EU policies is reflected by a change of relevance in the domestic policies. In the case of many other transport related objectives, however, this cannot be acknowledged: the relevance

of objectives in the domestic policies remained stable although the EU support changed, or vice versa. There are only few other examples like the promotion of freight corridors and the minimization of environmental harm. Thus, a direct relation between EU policies and domestic policies cannot be generally acknowledged.

Besides that, it seems that the EU objectives of the first funding period have had a higher influence on the member states' policies than the current EU policies. This might be due to the fact that the Polish policies were more open to change because of the countries' EU accession.

#### Influence of EU policies on cross-border policies

In most cases the cross-border policy documents are similar to the EU policies in the promotion of the transport-related objectives (see **Figure 105**). However, some objectives are not promoted frequently at the cross-border regional level. This concerns particularly environmental related and technical objectives. Also the connection of new member states is not promoted much - in contrast to cross-border transport services and infrastructures, the exchange of practices and further objectives.



#### Figure 105: Contribution of the cross-border policies to the EU policy transport-related objectives

Source: Author, Kaiserslautern, 2017.

The cross-border policies' deviation from the EU transport-related objectives is higher than the one of the Polish and German national policies but with 20.8% very similar to their deviation. The cross-border policies seem to be strongly focussed on the cross-border region's needs and interests because of which some deviations exist. Two cross-border policies were reported to have been influenced directly by the TEN-T policy: The **Common Vision Paper** of the German-Polish borderland (*Gemeinsames Zukunftskonzept 2030 Deutschland-Polen*) is said to promote the expansion of cross-border transport on the TEN-T corridor networks (Interview Kray 2016; Interview Sauer 2016). The **macro-regional strategy of the Baltic Sea Region** is said to have revised its transport aims and **action plan** in 2016 due

to the adoption of the new TEN-T policy. The action plan is said to refer to several EU transport policy objectives but to avoid duplicating the TEN-T core network corridor's aims. Instead it wants to complement these. Synergies are to be produced (Interview Erlandson 2016).

### Challenges for a direct influence of the EU policies on domestic and cross-border policy documents

The analysis of the EU policy influence on the different administrative levels showed that the EU policy seems to influence the domestic and cross-border policies to a certain degree. This is acknowledged by several interviewed stakeholders. The two main reported challenges which hindered the direct influence of the EU policies were the scarcity of the EU **funds** for the transport development and the **vagueness** of the objectives. Besides that, the TEN-T corridor coordinators should promote the cooperation across border more (Interview Schiwietz 2016) in order to increase the incentives and thereby the motivation of the domestic and cross-border actors to implement the EU objectives.

The German subregional level seems not to be influenced much from the EU objectives. Instead they were said to be influenced more by the domestic policies and the local transport needs.

## Conclusion: Influence of EU policy on domestic and cross-border policy transport documents

When concluding about the influence of EU transport-related policies on the member states policies in the Brandenburg-Lubuskie cross-border region the course of action of the document analysis needs to be kept in mind as described in **chapter 1.3**.

The comparison of the deviation of the policies from the administrative levels of Germany and Poland from the EU objectives showed that the regional levels deviate least from the overall EU objectives. This might acknowledge the involvement of subnational actors in EU policy-making and in policy implementation. However, the linkage of TEN-T and secondary networks is promoted most by the national policies of both countries. Cross-border services are promoted most by the regional level and cross-border infrastructures by the lowest level analysed (German subregional and Polish regional level).

When comparing the influence of the policies of the two funding periods (2007-2013 and 2014-2020) on the domestic policies there is a slightly higher similarity in the first funding period. This applies particularly to the objectives of enhancing **cross-border services** and the **linkage of TEN-T and secondary networks**. The comparison of the two funding periods also showed that the domestic policies were adapted to some changed EU policy focuses and proved a certain influence because the changed EU focuses did not lead to a higher deviation of the domestic policies. However, this could not be acknowledged in all cases.

Overall, the Polish policies are much more in line with the EU policy objectives than the German policies. Thus, the domestic policies seem not to be coordinated very much because the EU objectives are not promoted to a similar degree. Some differences in the orientation of the two countries' transport objectives were acknowledged by the interviewed stakeholders, however, the general objectives are said to be similar. As the Polish policies are strongly in line with the EU policies, the Polish policies seem to have been adapted to them. The EU promotion of objectives shall lead to the harmonization of the transport development in the EU. As the German policies do not promote the objectives as much as the EU policies, this might hamper a coordination of the German and Polish transport development.

Besides different transport focuses of the two countries, there is a politically explicitly formulated will and **shared aim** to cooperate across borders, to coordinate the transport development and to improve cross-border transport. Still the domestic policies' support of the EU objectives differs. However, the **cross-border policies** promote the improvement of cross-border transport services and infrastructures

and some general objectives more than the domestic policies. Additionally, they promote several objectives to a higher degree than the German policies. At the same time, other objectives are promoted least by the cross-border policies – probably because they are not considered to have a high relevance in cross-border transport. Thus, the EU influence is not generally higher in the cross-border policies than in the domestic policies. However, the coordination of domestic objectives in some fields in combination with a potential higher perception of the EU objectives seems to lead to a higher promotion of EU objectives. Additionally, according to Ritt, the relation between the EU and cross-border policies is no one way influence: particularly border regions are said to have uploaded own ideas and priorities into the EU policies to improve their own positioning and development (Interview Ritt 2016).

One challenge mentioned by the interviewed stakeholder is the low availability of financial incentives for the implementation of EU objectives. This might hamper the direct influence of the EU policies on the domestic and cross-border policies in some cases.

The statistical analysis showed that the German policies rarely promote the EU objectives to a strong degree leads to the assumption of highly path dependent German policies. The low promotion of the EU objectives might also be due to the German influence on the development of the EU policies. It has introduced a high number of its national standards into the policies, because of which Gemany might consider not to be in a high pressure to adapt as an old, 'experienced' member state. According to interviewed stakeholders also the regional policies influenced certain EU policies. Also the perception that the German transport system is already in a good shape compared to the Polish one might lead to a lower perceived relevance to promote these objectives. The Polish policies strongly promoted the EU objectives compared to the German policies. Thus, the EU policies seem to have a higher influence on them. This might point to a lower path dependence of the Polish policies, particularly in the first funding period (2007-2013). It might be explained with the EU accession of Poland and a related openness of the policies to change and adapt. Furthermore, the status quo of the Polish transport system is lagging behind the German and European standards. Therefore a higher need of adaption might be perceived. Because being a 'new' member state also the involvement of Poland in the EU transport policy-making might be lower than of Germany which leads to the creation of more foreign standards on the policy agenda.

The **dependence of the German policies on state hierarchies and competences** might hamper the assimilation of cross-border policies to EU policy objectives and thereby a more efficient cross-border transport. However, also other factors - for instance of financial nature - are expected to lead to a challenged implementation of these policies.

The following chapter goes a step further and analyses the concrete transport projects and initiatives which have been implemented since 2007 in the field of cross-border transport in order to trace back a potential further influence of the EU TEN-T and ETC policy and funds on cross-border transport and thus the practical implementation of the EU policies.

# 6.4.5 Practical influence on cross-border transport – facilitated projects and initiatives since 2007

This chapter analyses the practical implementation of the EU policies' objectives in projects and initiatives developed since 2007. First, EU funded initiatives are presented. Second, alternative cross-border transport projects without direct EU support are described. Purely touristic transport projects are excluded from the description because these are not considered to be relevant for the daily cross-border transport.

#### INTERREG A

In the development of the INTERREG A programme the national levels – including the transport ministries – were involved and defined the requirements for investments in transport infrastructures for cross-border connections (Interview Brol 2016; Interview Diehl 2016). According to Sauer, the INTERREG A programme directly refers to the connection of tertiary infrastructures with the TEN-T and thereby promotes the EU transport policy objective. This is said to be the case because the domestic ministries responsible for the INTERREG A programme were convinced of the importance of the TEN-T network and cross-border transport (Interview Sauer 2016).

Harmeling sees a high influence of regional stakeholders in INTERREG as the funds' allocation is coordinated on the regional levels. Thus, they decide about the project applications and the cross-border transport projects (Interview Harmeling 2016). The project decisions in the INTERREG A Brandenburg-Lubuskie cross-border region are taken by a monitoring committee which includes German and Polish members. Depending on the project's objectives additional social and economic partners are involved in the decision. Additionally, the Euroregions are involved. The *Euroregion Spree-Neisse-Bober* additionally supports local and regional bilateral transport project ideas and assists projects in the application for INTERREG funds. The Euroregion is also involved in the INTERREG A project management support (Interview Markus 2016). Furthermore, the integrated cross-border transport concept of the *Euroregion Spree-Neisse-Bober* is said to be used in the decision about INTERREG transport project proposals on the territory of the Euroregion (ibid.).

The next two sections shortly describe the transport objectives of the Operational and Cooperation Programmes - which were already presented in more detail in **chapter 5.1** - and then analyse the funded projects.

#### <u>2007-2013</u>

The **Operational Programme** of the Brandenburg-Lubuskie cross-border region defines an own transport priority which shall enhance the internal and external accessibility of the cross-border region. The transport network shall be linked to the TEN-T. More border crossings are to be established. The planning and expansion of cross-border infrastructure shall be coordinated across borders. Also multi-modal cross-border services are to be expanded and multi-modal terminals established. Soft mobility is to be promoted. In general the safety and user-friendliness of transport shall be increased (Land Brandenburg 2008, 13ff.;45ff.).

In the following eleven projects which were funded based on this Operational Programme and are considered to be relevant for cross-border transport are presented.

*Verbesserung der Straßeninfrastruktur im grenznahen Gebiet des Krosnoer Landkreises* (Lead Partner: Powiat Krosnienski; funding period: 03/2009 – 09/2011, ERDF funds: ca. 2.1 million Euros)

The project funded a reconstruction of the Polish county road 1153F between Żytowań and Kosarzyn. The road was broadened and a bicycle lane was added in parallel to the road. Additionally, a bus loop was created. Furthermore, the county road 1154F between Żytowań and the former bridge at the Neisse river and the national border was expanded including a bicycle lane. Thereby the project was to prolong the modernized roads between Gubin and Żytowań (Gemeinsames Technisches Sekretariat PL-BB).

*Grüner Pfad Guben – Gubin* (Lead partner: Gubin; funding period: 04/2009 – 12/2012; ERDF funds: ca. 0.8 million Euros)

The project developed a cross-border bicycle and hiking route between Guben (DE) and Gubin (PL). It has a mainly touristic purpose by linking sights (Euroregion Spree-Neiße-Bober 2015, 12).

*Ausbau der Gubener Straße, Inselstraße und Heinrich-Heine-Straße in Forst (Lausitz)* (Lead partner: Forst (Lausitz); funding period: 01/2010 – 12/2012, ERDF funds: ca. 1.7 million Euros)

This project invested in road and bicycle infrastructure in the German border city Forst. These infrastructures are said to be frequently used by Polish visitors (Euroregion Spree-Neiße-Bober n.y.b).

*Bau des Radwegs auf der Strecke Brody-Lubsko-Jasień* (Lead partner: Lubsko; funding period: 08/2011 – 12/2011, ERDF funds: ca. 1.5 million Euros)

The aim of the project was to develop a common cross-border bicycle track between Lubsko, Brody, Jasień (PL) and Forst (DE). Thereby the bicycle and pedestrian safety was to be increased. It shall promote cross-border bicycle transport (Gemeinsames Technisches Sekretariat PL-BB n.y.a)

*Grenzüberschreitende Brückenverbindung Landkreis Oder-Spree Bundesrepublik Deutschland und Landkreis Krosno Odrzańskie Republik Polen* (Lead partner: Oder-Spree; funding period: 03/2010 – 12/2012; ERDF funds: ca. 2.3 million Euros)

The project funded the preparation of the reestablishment of a bridge across the Neisse river between Coschen (DE) and Żytowań (PL) (Interview Brol 2016). The aim was to foster regional transport relations across the border and reactivate economic flows and cross-border cooperations. In 2014 the bridge was dedicated after it had been destroyed in 1945 (KEEP 2015f). The new bridge is said to have minimized the travel time to cross the border and increased transport safety. It also aimed at increasing the accessibility to the supraregional transport network (Gemeinsames Technisches Sekretariat PL-BB 2015, 4).

*Logistikregion Viadrina* (Lead partner: Investor Center Ostbrandenburg GmbH; funding period: 03/2010 –03/2013; ERDF funds: ca. 0.5 million Euros)

The project aimed at developing a network of Polish and German logistical enterprises of the *Euroregion PRO EUROPA VIADRINA* to benefit from locational advantages. It consisted of a study on the logistical offer and needs in the cross-border region. Missing services and cooperation models were to be developed (Gemeinsames Technisches Sekretariat PL-BB n.y.b).

*Verbesserung des Verkehrsnetzes in dem Grenzgebiet des polnischen Teils vom Krosnoer Landkreis* (Lead partner: Krosno Odrzańskie; funding period: 05/2010 – 12/2010, ERDF funds: ca. 0.6 million Euros)

The expansion of the Polish county road 1139F in Bieżyce in the vicinity of the German border was funded. The investments contained the construction of a pedestrian path and a bicycle lane. The bicycle lane was to extend the existing bicycle network of the *Euroregion Spree-Neisse-Bober* (KEEP 2015a).

Schaffung von Verkehrsverbindungen zwischen Bundes - und Landesstraßen auf der Grundlage eines abgestimmten Verkehrsinfrastrukturentwicklungsplanes der Landkreise Märkisch-Oderland, Mysliborz und Gorzow Bestandteil des Projektes: Ausbau der Kreisstraßen K6411 und K6408 (Lead partner: Märkisch Oderland; funding period: 10/2010 – 07/2012; ERDF funds: ca. 4.1 million Euros)

This project supported the expansion of two German roads, the K6408 and K6411 with four million Euros. In addition sandbags were stored because the roads are said to have an important function in times of flood (KEEP 2015g).

Anbindung von Kreis- und Kurstadt sowie des ländlichen polnischen Raumes an die großräumigen und überregionalen Verkehrsverbindungen (Ausbau der K6435 und K6436 sowie der Kreisstraßen Nr. 1404 und 1410F) (Lead partner: Landkreis Märkisch Oderland; funding period: 12/2010–12/2012; ERDF funds: ca. 4.8 million Euros)

The project contributed to the expansion of German (K6435 and K6436) and Polish county roads (1404 and 1410F) to improve the connection of the cities to supraregional transport infrastructures. These investments are said to contribute to European integration (KEEP 2015b).

*Entwicklung der grenznahen Verkehrsinfrastruktur in der Eurostadt Guben/Gubin - Ausbau der Alten Poststraße* (Lead partner: Guben; funding period: 06/2011–12/2014; ERDF funds: ca. 1.8 million Euros) (Gemeinsames Technisches Sekretariat PL-BB n.y.d)

The project aimed at expanding and renovating a German road which runs in parallel to the border river in Guben and is said to be frequently used by cross-border transport flows. The investments were to increase transport safety and reduce noise (Euroregion Spree-Neiße-Bober n.y.a). Additionally, the cross-border bridge between Gubin and Guben was to be linked with the main train station of Guben (Gemeinsames Technisches Sekretariat PL-BB n.y.d).

*Analyse Verkehrsnetz Oder-Neiße (AVerON)* (Lead partner: Euroregion PRO EUROPA VIADRINA; funding period: 04/2015 – 09/2015; ERDF funds: ca. 66.000 Euros)

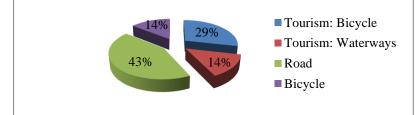
The project developed a spatial study and analysis of the cross-border transport infrastructure of the German-Polish cross-border region with a focus on the territory of the four Euroregions. The analysis built on an earlier study (DPERON) which was developed in 2008 without EU support. This study was to be updated. It was based on interviews with Polish and German stakeholders from the cross-border region and focussed on bottlenecks as well as planning objectives for road, motorway, railway, waterway and touristic infrastructures as well as bus transport. The AVerON study is considered as important basis for the expansion and improvement of cross-border transport as needs of action were formulated on the basis of the analytical results (Interview Kray 2016; Interview Schiwietz 2016; Euroregion PRO EUROPA VIADRINA 2015a).

In addition to these eleven projects, six touristic projects which also relate to transport have been funded (see **Appendix**). However, they are considered not to be relevant for the daily cross-border transport.

# Thematic focus of the INTERREG A projects and their aims (2007-2013)

When looking at the INTERREG A transport projects which were funded in the last funding period it can be seen that a high number of projects invested in short sections of hard transport infrastructure – particularly **road infrastructures** were funded (see **Figure 106**). Besides that, several projects which are solely related to touristic reasons and not to daily cross-border transport were supported – most of them supporting the expansion or construction of bicycle paths. Two others invested in touristic infrastructures for waterway transport. These projects are excluded from the further analysis because they are considered not to influence cross-border transport within the border region.

#### Figure 106: Focus of the INTERREG A projects Brandenburg-Lubuskie (2007-2013)

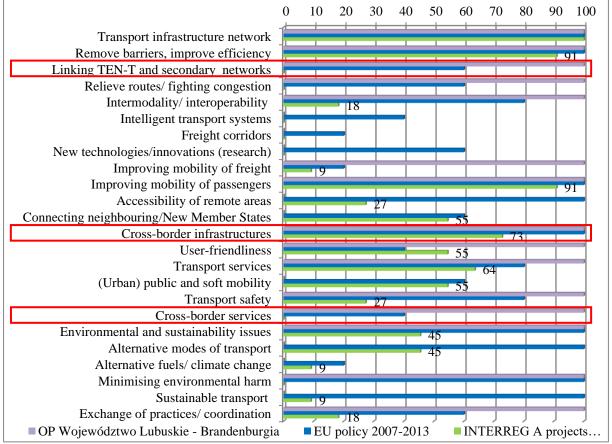


Source: Author, Kaiserslautern 2017.

The road infrastructure investments, often did not fund territorially contiguous border crossings, but invested in bottlenecks which were said to hamper a smooth transport within the cross-border region. Some infrastructures were even not situated in the close vicinity of the border. Additionally, projects often funded infrastructures situated only on one side of the border. The investments, however, were said to be relevant for both sides. One project led to the re-establishment of a cross-border **bridge**, two road investments aimed at enhancing the connection to supraregional roads – the residual ones, however, focussed on local and county roads.

Three road projects supported a parallel development of **bicycle** lanes next to the street. Besides that, two further bicycle projects across borders were funded with a direct relation to the border. Therefore they are considered to be used for daily commuting. Additionally, two **studies** were funded, one focusing on the cooperation of logistical firms across the border, the other evaluating the cross-border transport system and developing proposals for improvements.

The **Operational Programme** focussed its support on 15 of 24 transport-related EU objectives (see **Figure 107**). Most of the Operational Programme's objectives were addressed by the funded projects. Some, however, such as cross-border services and the linkage of TEN-T and secondary networks, were not tackled in the funded projects. In addition, some projects addressed additional EU objectives that were not explicitly mentioned in the Operational Programme, such as the promotion of the accessibility of remote areas. Three rather technical EU objectives that were not promoted in the Operational Programme were also not treated by the projects. Thus, the Operational Programme seems to influence the choice of the projects' objectives to a certain degree. However, the projects are not restricted to the programme's objectives.



#### Figure 107: Contribution of the INTERREG A projects (2007-2013) to the EU policy objectives

Source: Author, Kaiserslautern 2017.

The projects did not aim at contributing particularly to objectives which were strongly promoted by the **EU policies**. Some of the addressed objectives had a high relevance on EU levels, others not. However, as some objectives were addressed by the projects which were not named in the Operational Programme, the EU discourse seems to have contributed to this choice at least to a certain degree.

The INTERREG A programme did not solely support soft transport projects, but strongly invested in hard infrastructure projects. It is striking, that cross-border transport services and the linkage of TEN-T and secondary networks were not addressed by the projects although the programme promotes all three cross-border transport related objectives. More projects focussed on passenger than on freight transport. Tourism seems to be a very popular issue for INTERREG funding – and might be important for the economic sector of the rather rural cross-border region. The contribution to cross-border transport, however, is doubted.

The interviewed stakeholders mentioned that several road and bicycle projects were funded, however, they did not name specific ones. This might prompt that the interest in these projects has been rather low - respectively the projects did not have a high **visibility** within the cross-border region. The most significant and visible project is the preparation of the establishment of a cross-border bridge. This project was named by some interview partners.

#### 2014-2020

The INTERREG A Cooperation Programme of the current funding period also defined transport as a priority which shall improve the linkage of the secondary and tertiary networks of the cross-border region to the TEN-T. The cross-border road connections are to be enhanced. The external accessibility of the region is to be improved and transport shall be come more sustainable. The planning of the establishment of new border bridges shall be coordinated across borders. Public transport services across the border shall be promoted and become more attractive also in rural areas. The marketing of crossborder tickets shall be improved. Thereby congestions shall be removed. The environmental harm, caused by transport, shall be reduced by promoting alternative modes of transport (Ministerium der Justiz und für Europa und Verbraucherschutz des Landes Brandenburg 2015. 9f.;14;16;18;21f.;24;36ff.).

In the first call of the new funding period, three out of eight transport project applications were approved in December 2016. Approximately two million Euros have remained available for further transport projects in the next calls (INTERREG V A Brandenburg – Polen 2016a). The second call did not foster projects in the field of transport (INTERREG V A Brandenburg – Polen 2017). Unfortunately besides the basic data and title of the projects, no information on two of the three projects that were accepted in the first call could be accessed.

*Verbesserung der grenzüberschreitenden Verkehrssituation der Eurostadt Guben-Gubin* (Lead Partner: Powiat Krosnienski; funding period: 1.4.2017-31.12.2019, ERDF funds: ca. 4.5 million Euros) (INTERREG V A Brandenburg – Polen 2016b)

According to the title the transport situation between the twin city Guben and Gubin shall be improved. Which concrete investments shall be taken could not be found out.

*Grenzenlos – Teil 1*(Lead partner: Gmina Zary o statusie miejskim; funding period: 14.9.2016-31.12.2018; ERDF funds: ca. 4 million Euros) (ibid.)

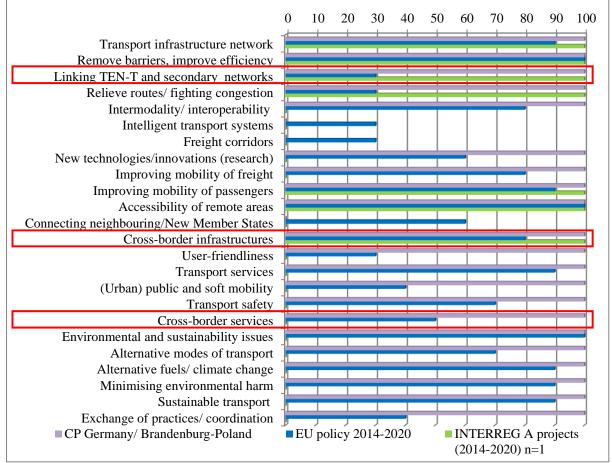
The title of the project [borderless – part 1] does not reveal any information about the project's objectives.

*Ausbau der Kreisstraßen K6409 im Landkreise MOL und 1405F im Landkreis Gorzowski* (Lead partner: Landkreis Märkisch-Oderland; funding period 01.06.2017 – 30.09.2019; ERDF funds: ca. 2.8 million Euros) (ibid.).

The aim of the third project is to expand two county roads – one in Poland, the other one in Germany. The Polish road 1405F close to Klodawa-Lipy is to be renovated and the German road K6409 between Kiehnwerder and Platkow shall be expanded. The road construction work is to be implemented between the end of 2017 and autumn 2018 in several subsections (Landkreis Märkisch-Oderland 2016). Thereby infrastructure bottlenecks which influence the cross-border traffic are to be minimized. The investments do not concern immediate cross-border jackets but are said to be connected to border crossing infrastructures. Additionally, the rural transport infrastructure of both regions is to be connected efficiently to the North-Sea Baltic TEN-T corridor as well as to the cities Berlin (DE) and Gorzow (PL). Besides that, the accessibility to supraregional and national transport connections is to be improved. Finally, this is to benefit cross-border interactions (Interview Borowiak 2017).

# Thematic focus of the INTERREG A projects and their objectives (2014-2020)

Because only one project could be analysed in the current funding period, not very reliable findings can be derived. However, **Figure 108** shows that the project aims at contributing to seven EU objectives, all of them promoted by the EU policies and the Cooperation Programme with a strong focus on transport infrastructure objectives. Additionally, the linkage of TEN-T and secondary networks and cross-border infrastructures are to be improved by the project. Environmental and transport service related objectives were not mentioned.



#### Figure 108: Contribution of the INTERREG A projects (2014-2020) to the EU policy objectives

Source: Author, Kaiserslautern 2017.

More projects will be funded until the end of the funding period which can change the results. Therefore no further analysis was conducted.

The next section analyses the contribution of the INTERREG B projects in two cooperation areas to cross-border transport in the cross-border region.

# INTERREG B

The regional transport objectives are said to have been integrated as priorities in the Baltic Sea Region and Central Europe programmes. The importance of the TEN-T network and cross-border transport were stressed (Interview Sauer 2016). Contradicting objectives of other countries were to be prevented from being integrated into the programme (Interview Ritt 2016; Interview Nowicki 2016; Interview Diehl 2016; Interview Wierzbicki and V. Griekere 2016). After intensive discussions in the monitoring committee of the Baltic Sea Region and Central Europe programme area, the **domestic objectives** were **aligned** and then integrated into the transnational programmes as development objectives (Interview Wierzbicki and V. Griekere 2016; Interview Ritt 2016). Also the project applications were often discussed controversially because of different national interests (Interview Ritt 2016).

In the following the INTERREG B Central Europe's funded projects are presented which have been funded since 2007.

#### **INTERREG B Central Europe**

All member states involved in Central Europe, including Germany and Poland, considered it to be relevant to define a transport priority because of the high importance of the European transport corridors which cross the region (Interview Diehl 2016). The connection of the region to the TEN-T shall be supported. Additionally, the transport development was evaluated to be improvable in the ex-ante SWOT analysis of the current (2014-2020) funding period and disparities between the new and old member states were to be minimized (Interview Nowicki 2016; Interview Ritt 2016). National as well as regional stakeholders were involved in this decision (Interview Ritt 2016).

#### 2007-2013

The Central Europe **Operational Programme** promotes the improvement of the internal and external accessibility of the region. The environmental harm caused by transport is to be reduced. Urban public transport and alternative transport modes shall be promoted. Particularly the TEN-T rail freight network in Eastern Europe shall be improved. The TEN-T corridors shall be interlinked with the region's transport network. Bottlenecks shall be removed. Regional ports are to be supported, connected to the sea ports and coordinated to avoid mutual competitiveness. Transport safety shall be increased. Remote areas are to be connected efficiently to urban areas and congestions are to be minimized. The intermodality of freight and passenger transport is to be expanded and managed by innovative transport management systems. Thereby the transport system shall become more sustainable. Transport policies from different administrative levels shall be coordinated better.

20 projects were funded in Central Europe in the field of transport between 2007 and 2013. However, only five had a direct relation to cross-border transport. Only those will be described in the following. In the end of this section an overview of the residual projects and their objectives is given in a table.

**SoNorA** (South North Axis) (Lead partner: Veneto Region; funding period 11/2008 – 07/2012; ERDF funds: ca. 5.5 million Euros) (Central Europe Programme n.y.r)

The project focussed on the development of multimodal transport infrastructures and intermodal service networks in the north-south Baltic Adriatic transport corridor. The primary transport infrastructures were to be linked with national and regional transport networks. Sustainable transport modes were to be promoted while ensuring the accessibility of all hubs. Additionally, challenges in the infrastructure

implementation process were to be prevented. These objectives were to promote regional development in general. This was to be reached by **feasibility studies**, **case studies**, **policy recommendations**, **proposals for the harmonization of national policies**, the development of **guidelines** and **prefinancing studies** on the development of logistical services for port and hinterland connections. Additionally, a methodology for the revision of the TEN-T routing, a software which depicts intermodal routing information for logistics and transnational common action plans were developed (Central Europe Programme n.y.r; Unioncamere del Veneto n.y.; Central Europe Programme 2012b, 26f.). Besides the promotion of the Baltic Adriatic transport corridor the project is said to have also taken into account cross-border transport sections (Interview Sauer 2016; Interview Ritt 2016; Interview Diehl 2016). Additionally, common events were developed together with the Oder partnership (Interview Ritt 2016).

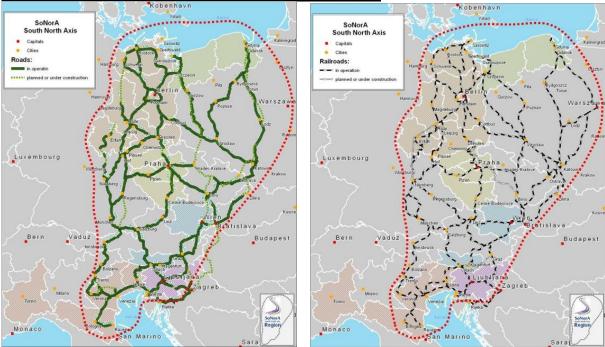


Figure 109: Investigated roads and railways of the SoNorA project

Source: Unioncamere del Veneto n.y.

Lubuskie, however, was not involved in the project. Solely Brandenburg and another Polish region were integrated. No case studies were conducted on the voivodeship's territory. Still Lubuskie is expected to have been influenced indirectly to some extent by the transport infrastructures that cross the region and belong to the North South corridor (see **Figure 109**).

**INTER-Regio-Rail** – **Removing barriers to regional rail transport** (Lead partner: German Association of Regional Passenger Rail Authorities; funding period 04/2010 – 09/2013; ERDF funds: ca. 1.6 million Euros) (Central Europe Programme n.y.l)

The project focussed on possibilities to improve regional public rail transport and its transport offer. The accessibility in Central Europe was to be enhanced and rail transport was to become more attractive compared to the individual car to reduce the environmental burden. **Pilot projects** were implemented to test these possibilities in different fields concerning technical systems, **cross-border transport**, intermodal transport and user needs. Additionally, investments in rail transport were to be prepared. The identified **common challenges** and **needs of adaptation** were to be discussed with political decision makers on European, national and regional level to amend the policies, regulations and financing. After the end of funding the involved passenger rail authorities signed an Memorandum of Understanding to prolong the cooperation and exchange in the future (ibid.). The project is said to have fostered the

**coordination of timetables across borders**. Among others, the project involved partners from Lubuskie and Berlin-Brandenburg (Interview Ritt 2016).

In the project the regional railway organization of Brandenburg **analysed** its cross-border transport to Poland and developed solutions for existing challenges. A master plan on the usage of available trains across borders, and **studies** on the legal barriers as well as technical requirements of the common usage of locomotives were developed. This included a **cooperation agreement** for the tender of cross-border connections to ensure a direct cross-border offer in the future (Bundesarbeitsgemeinschaft Schienenpersonennahverkehr n.y., 10f.).

**FLAVIA - Freight and Logistics Advancement in Central Europe - Validation of processes, Improvements, Application of co-operation** (Lead partner: University of Applied Sciences Wildau; funding period 03/2010 – 04/2013; ERDF funds: ca. 1.4 million Euros (Central Europe Programme n.y.j))

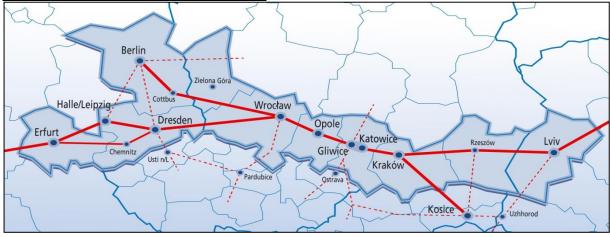
The project addressed intermodal logistic transport chains and their improvement between the new south-eastern and central European member states. Transnational logistical barriers, such as delays at border crossings, were to be identified and reduced particularly along the FLAVIA- and two TEN-T corridors. No infrastructures were to be constructed, instead **studies** and **analyses** concerning the accessibility, bottlenecks, feasibility and benchmarking were conducted to **develop measures** which contribute to a better interconnectedness of the involved regions. Freight transport with alternative and environmentally friendly transport modes was to be promoted. In this context **best practices** and **experiences** were to be **exchanged** between the partners and **alliances for promotion** were to be established in cooperation with the other INTERREG projects SCANDRIA and SoNorA. Additionally, **pre-feasibility studies** were conducted. The FLAVIA corridor was to be extended to the Black Sea and trade and transport cooperations were to be created. The aim was to develop transnational action concepts and proposals for the future development of intermodal freight transport (Technische Hochschule Wildau n.y; Central Europe Programme n.y.j).

The project involved three partners from Brandenburg and one Polish partner from Poznan (Central Europe Programme n.y.j). The analysis on 'cross-border problems' of the logistical corridor took into account the border crossing between Frankfurt/Oder (DE) and Kunowice (PL) because identified as one of the "20 most critical border points" (FLAVIA project 2012a, 45) of the corridor and proposed measures to improve the existing challenges (ibid., 14ff.). Additionally, the project proposed to modernize the railway between Frankfurt/Oder (DE) and Rzepin (PL) leading further to Poznan and the Belarus border to increase the number of freight trains on this track (FLAVIA project 2012b, 74).

**VIA REGIA** + - Sustainable Mobility and Regional Cooperation along the Pan-European Transport Corridor III (Lead partner: Wrocław; funding period 10/2008 – 12/2011; ERDF funds: ca. 2.1 million Euros) (Central Europe Programme n.y.t)

The project aimed at enhancing the regional and local rail network and the accessibility between East Germany, Southern Poland, Slovakia and the Ukraine (see **Image 44**). The former TEN-T corridor which linked the regions was considered to be decisive for the mutual interconnection and was to be strengthened. The expected growth of transport was said to be shifted from road to rail. Particularly the **cross-border rail transport** was said to be in a bad shape and to be enhanced. The better accessibility was to contribute to the touristic attractiveness. An **action plan** and **memorandum of understanding** were to be developed including **guidelines** for the improvement of the situation to ensure the implementation after the end of the project. Thereby also national investments in rail transport as well as schedules and tariffs were to be **coordinated** across borders. Therefore, **studies** on development needs, potential investments and their added value were conducted and **discussed** with rail practitioners.

Additionally, inner-urban metropolitan transport studies were conducted to develop cross-border development plans (Central Europe Programme n.y.l).





Source: ibid.

The project solely involved a national project partner from Berlin (Interview Ritt 2016) and further regional partners from Thuringia and Saxony. Additionally, several Polish partners were involved, however, none from Lubuskie (Central Europe Programme n.y.t). Still as can be seen in **Image 44**, the territory of Lubuskie and Brandenburg belong to the reach of the corridor. Development proposals for the rail network and transport offer took the rail stations of Cottbus and Zielona Góra into account. Possibilities for the improvement of the long distance railway between Berlin and Wrocław were developed. Also an option from Cottbus via Forst (DE), Zary, Zagan and Legnica was developed as alternative to the connection to Wrocław via Dresden which concerns both Brandenburg and Lubuskie (Stadt Breslau, Büro für Stadtentwicklung 2011, 11ff.).

**EDITS –European Digital Traffic Infrastructure Network for Intelligent Transport Systems** (Lead partner AustriaTech; funding period 07/2012 – 12/2014; ERDF funds: ca. 1.9 million Euros) (Central Europe Programme n.y.h)

The project aimed at supporting the development of a cross-border multimodal travel information system. Therefore the transport **data** and **information** needed to be **harmonized** across borders and a **GIS platform** was developed to integrate that data. This was also to lead to the improvement of traffic management systems. Thereby more passengers were to be motivated to use alternative transport modes and congestions were to be reduced. The project harmonized data and **tested** a developed travel information system in three cross-border regions. A framework to harmonize the travel information, including GIS data requirements, was defined to facilitate the exchange. This framework is said to be also applicable in other cross-border regions. Furthermore, travel information systems were developed for the **case studies**. Based on the experiences of their application, **recommendations** were developed for other cross-border regions (ibid.).

The project did not involve any Polish or German partner and did not conduct a case study on the crossborder region's territory (ibid.). However, it is considered to be relevant as it focused strongly on crossborder transport and developed outputs which can be applied in other cross-border regions. Therefore it might be of benefit in the cross-border region between Brandenburg and Lubuskie as well.

The other funded transport projects (see **Table 71**) lack a direct relation to cross-border transport and/or the cross-border region. Still, they concern other transport-related issues. Their findings might be applied by the cross-border region as the results were made publically available. The BATCo project

also related to the TEN-T corridors and might have contributed in shaping the core network corridors.

Project name	Thematic focus	Funding period	Approx. ERDF support
airLED	Influence of airports on territorial development	07/2012 - 12/2014	1.4 million €
BATCo	Development of the Baltic Adriatic TEN-T corridor	03/2010 - 08/2013	2.8 million €
BICY	Promote urban – regional bicycle transport	02/2010 - 01/2013	1.6 million €
Central MeetBike	Bicycle infrastructures in urban transport	03/2011 - 05/2014	2.3 million €
CHAMPIONS	Connection of air and public transport	03/2010 - 02/2013	1.4 million €
EMPIRIC	Multimodal transport	03/2011 - 02/2014	2.3 million €
GUTS	Sustainable urban public transport	03/2010 - 02/2013	1.7 million €
INWAPO	Inland waterways and sea ports	10/2011 - 12/2014	3.0 million €
KASSETTS	Logistic transport efficiency with ICT systems	10/2008 - 03/2012	1.9 million €
LOGICAL	Interoperability of logistics with cloud computing platforms	05/2011 - 12/2014	2.4 million €
RAILHUC	Connection of TEN-T hubs with the urban and regional network	10/2011 - 12/2014	2.3 million €
SOL - Save Our Lives	Transport safety	04/2010 - 06/2013	2.8 million €
ChemLog	Logistic transport of Chemicals	11/2008 - 10/2012	1.7 million €
ChemLog-T&T	Intermodal transport of dangerous goods	07/2012 - 12/2014	1.5 million €
TROLLEY	Trolley buses in public transport	02/2010 - 03/2013	3.3 million €

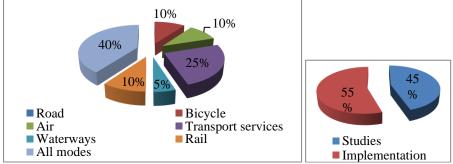
Table 71: Further INTERREG B Central Europe transport projects (2007-2013)

Sources: Central Europe Programme n.y.a, n.y.b, n.y.c, n.y.d, n.y.e, n.y.i, n.y.k, n.y.m, n.y.n, n.y.o, n.y.p, n.y.q, n.y.f, n.y.g, n.y.g

#### Thematic focus of the INTERREG B projects and their objectives (2007-2013)

The majority of the 20 INTERREG B projects aimed at promoting multi-modal transport instead of one special transport mode. None of the projects focussed on road transport. Besides infrastructures, several projects focussed on transport services. A little more than half of the projects directly implemented issues in transport practice, 45% solely developed studies during the project phase (see **Figure 110**)

Figure 110: Character of the Central Europe projects 2007-2013 (n=20)

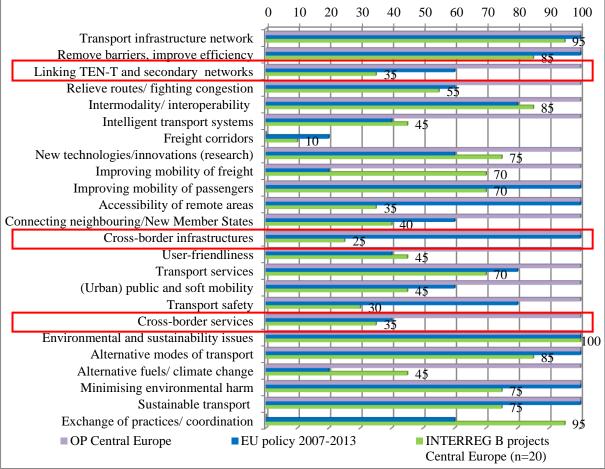


Source: Author, Kaiserslautern, 2017.

Figure 111 shows that the projects addressed all three cross-border transport-related objectives. However, the latter are not among to the most promoted categories.

The Operational Programme's objectives were very broad and did solely exclude two of the EU policy objectives. The projects addressed all EU transport-related policies objectives. The least mentioned objective, the establishment of freight corridors, was not promoted by the Operational Programme and was treated by two projects only. All other objectives were promoted more often. The projects equally focussed on freight and passenger transport.

The support of the EU objectives was often similar to the objectives' relevance promoted in the EU policies. However, some exceptions exist, for instance in the promotion of the linkage of TEN-T and secondary networks and cross-border infrastructures. If the Operational Programme has influenced the projects cannot easily be evaluated because the programme promoted nearly all EU policy objectives.



#### Figure 111: Contribution of the Central Europe projects (2007-2013) to the EU policy objectives

Source: Author, Kaiserslautern, 2017.

#### <u>2014-2020</u>

It was decided to dedicate one priority axis of the **Cooperation Programme** of Central Europe to the improvement of the transport connections and cooperation within the region. Thus, the transport development shall be coordinated across national borders. The programme promotes secondary networks which shall link the region's cities and major transport routes with the regional, local and peripheral transport networks. Bottlenecks shall be removed. Transport shall become more sustainable and environmentally friendly by reducing the  $CO_2$  emissions in both passenger and freight transport. Furthermore, the interoperability and multimodality of transport shall be increased. Public transport shall be enhanced and made more attractive. Additionally, transport shall become more innovative.

During the current funding period, two calls have been conducted until April 2017. The last decision on projects was taken in March 2017. 50 new projects were selected (Interreg Central Europe 2017a). Three of them have a direct relation to cross-border transport. Therefore they are described in the following in more detail.

**CONNECT2CE** (Lead partner Central European Initiative, Italy; funding period 06/2017 – 06/2020; ERDF funds: ca. 27 million Euros) (Interreg Central Europe n.y.b)

The aim of the project is to improve the accessibility of peripheral and cross-border regions by increasing their connection to public transport networks and their nodes. **Tools** shall be developed which can be applied by local and regional transport operators to improve public transport. Transnational **coordinated strategies and actions** shall be created which cope with common ticketing, tariffs and good connections across borders which will be **tested** in cross-border **pilot studies**. Additionally, **travel information systems** shall be developed (ibid.).

**Peripheral Access** (approved in the second call, no more information at the time of writing yet (August 2017)

The project will focus on peripheral border regions and public transport. The initial situation of such regions shall be **analysed**. Then **strategies** are to be developed to improve the situation with an increased multimodality, intelligent communication systems and a better coordination and marketing of the offer across borders. The project results shall change the mobility behaviour of planners, politicians and the passengers (Interreg Central Europe n.y.c).

**TRANS-BORDERS** (approved in the second call, no more information at the time of writing yet (August 2017)

This project aims at improving challenged public rail and bus connections across borders. Additionally, the accessibility of peripheral cross-border regions to the TEN-T core network shall be enhanced. The **cooperation and planning across border** shall be improved by involving different stakeholders. **Guidelines** and an **action plan** are to be developed which assist cross-border regions to create governance structures that cope with these transport challenges (Interreg Central Europe n.y.i).

Furthermore, six other transport projects were accepted for funding during the current funding period (see **Table 72**). However, not much information could be accessed until August 2017 as some of these projects seem not to have started yet.

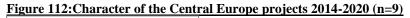
Project name	Thematic focus	Funding period	Approx. ERDF support
ChemMultimodal	Multimodal transport of chemical goods	06/2016 - 05/2019	2.4 million €
RUMOBIL	Public transport in peripheral regions	06/2016 - 05/2019	2.7 million €
SHAREPLACE	Sustainable multimodal public transport	06/2017 - 05/2020	2 million €
SubNodes	Connection of secondary nodes to the TEN-T	?	?
TalkNET	Environmentally friendly freight transport	?	?
TRANS TRITIA	Cross-border freight transport in the TRITIA EGTC	?	?

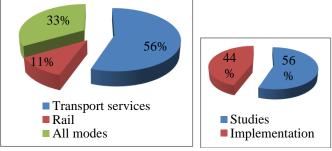
Table 72: Further INTERREG B Central Europe transport projects (2014-2020)

Source: Interreg Central Europe n.y.d, n.y.e, n.y.a, 2017b, n.y.g, n.y.h

#### Thematic focus of the INTERREG B projects and their objectives (2014-2020)

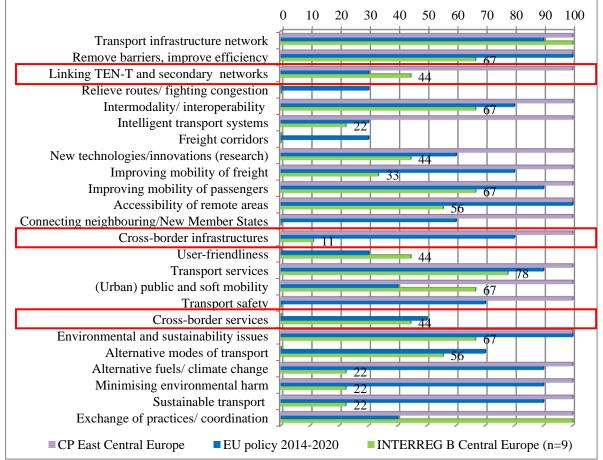
The nine projects of the Central Europe progamme which have been funded so far focussed on rail transport, respectively all transport modes or transport services in general. No projects related to road, air, waterways or bicycle have been funded so far. The majority of the projects conducted studies rather than concrete implementations in practice. Some of these try to implement the results in pilot projects.





Source: Author, Kaiserslautern, 2017.

#### Figure 113: Contribution of the Central Europe projects (2014-2020) to the EU policy objectives



Source: Author, Kaiserslautern, 2017.

The Cooperation Programme does not relate to six of the EU transport-related objectives (see **Figure 113**). The projects supported in all cases – except two – solely objectives which were named by the Cooperation Programme. Thus, the projects seem to be strongly influenced by the programme. Cross-border services and user-friendliness were promoted in addition. Cross-border infrastructures are promoted very little. Instead more cross-border service projects are conducted. Additionally, a relatively high number of projects supports the linkage of TEN-T and secondary networks.

So far no project has promoted the connection of neighbouring states although this was promoted by the programme. This is the only objective of the Cooperation Programme which has not been treated by any project yet. Some objectives' relevance in the projects and the EU policies is rather similar, in other cases the EU influence seems to have been rather low.

Compared to the last funding period less EU objectives were promoted in the Cooperation Programme, which seems to point out a stronger focus on fewer topics. Though, all objectives, except of four have been covered by the projects. All projects contributed to the exchange of practices and an enhanced transport infrastructure network. Cross-border infrastructures have been addressed less than during the last funding period. The popularity of the objectives 'linking TEN-T and secondary networks' and 'cross-border services' slightly grew (+7%) compared to the last funding period.

#### **INTERREG B Baltic Sea Region**

The Baltic Sea Region programme is comprises the territory of the Baltic Sea macro-region. Therefore interrelations exist. The INTERREG programme funds flagship projects of the EU Strategy for the Baltic Sea Macro-Region (Interview Wierzbicki and V. Grieķere 2016). To become a flagship project, transport initiatives need to involve partners from at least three member states and focus on cross-border challenges. Besides that, they should enhance the accessibility and create new solutions. Furthermore, they have to produce tangible results which are implementable and contribute to the aims of the Europe 2020 Strategy (Interview Erlandson 2016). When the INTERREG project is a flagship project it will be announced in the following.

The INTERREG programmes of both funding periods foster transport projects. According to Wierzbicki and Grieķere the TEN-T policy was analysed together with other transport-related policy documents as a preparation of the Baltic Sea Region programme and influenced the programme (Interview Wierzbicki and V. Grieķere 2016).

In general transport development is said to be strongly based on the needs perceived by the national levels. Their objectives are said to be often limited to the national territories without being aware of the transport objectives of the neighbouring countries. The INTERREG B programme, however, is said to offer the **regions more voice** in the field of transport development. The programme should be used as a **platform** for the regional levels transport planners to **exchange** and potentially **coordinate** their transport developments (ibid.).

The first action plan of the Baltic Sea Macro-Regional Strategy is said to have strongly related to European transport corridors because the member states had a high interest in them. Thereby the member states promoted their most important transport corridors (Interview Erlandson 2016). The macro region is used, among others, as a **platform to coordinate** the transport development of eight member states. The transport steering committee involves stakeholders from the domestic national and regional transport ministries and the European Commission (DG Regio) (ibid.). The implementation of the transport objectives of macro-regional strategies is coordinated and thereby influenced by the transport priority area coordinators that are mostly situated in national transport bodies. In the (further) development of the strategies the European Commission as well as the priority area coordinators are involved and negotiate the contents. Therefore the macro-regions are said to be influenced by both the European and the national level. In this context macro-regions are considered to be a good level to coordinate the European and domestic objectives (Interview Kurnol 2016). Also Nagelkrämer acknowledges the involvement of the national level in the development and implementation of the macro-regional strategies. Therewith the EU is said to have to take into account the national transport objectives (Interview Nagelkrämer 2016; 2016; 2016). Erlandson considers the cooperation in the macro-region to be difficult as, depending on the transport issue, sometimes the national levels and sometimes the regional levels were competent. The steering committee decides about new flagship projects and the revision of action plans as well as other future actions. When designing a new action plan further interests needed to be taken into account from the local level as well as the business sector. The different entities are said to show very **different characteristics and needs**. Thus, the coordination is very complex. Besides that, it is to be avoided to duplicate the corridor forums of the TEN-T corridors

(Interview Erlandson 2016). The transport policy area coordinator of the Baltic Sea Region macro region is said to be in regular contact with the TEN-T corridor coordinators that cross the macro-regional territory to cooperate. Ideas and suggestions are to be exchanged (ibid.).

Coming back to the INTERREG programme, it was found out that none of the projects funded in the transport priority of the Baltic Sea Region during the last or current funding period has involved a project partner from Lubuskie. Still Brandenburg has been involved in several transport projects with Polish partners from other Polish regions. Additionally, some projects might have developed activities which were relevant for the cross border transport between Brandenburg and Lubuskie (Interview Wierzbicki and V. Griekere 2016). These are presented in the following.

#### <u>2007-2013</u>

The Operational Programme of the Baltic Sea Region aimed at enhancing the external and internal accessibility of the region. The different national transport systems shall be linked mulitimodally with each other. Missing links are to be established. Also the secondary transport networks shall be interlinked and connected to the TEN-T and neighbouring countries in and outside the EU. Remote regions shall be accessed as well and connected to urban areas. Sea transport shall be promoted in order to reduce road congestions. The motorways of the sea shall be promoted. Even the interregional air transport shall be improved. It shall be experimented with alternative transport modes and fuels to make urban public transport more sustainable.

In the following five projects with potential relevance for cross-border transport in the cross-border region Brandenburg-Lubuskie are presented.

**TransBaltic - TransBaltic - Towards an integrated transport system in the Baltic Sea Region** (Lead partner Region Skåne; funding period 06/2009–09/2012; ERDF funds: ca. 4.0 million Euros) (Baltic Sea Region Programme 2007-2013 n.y.m)

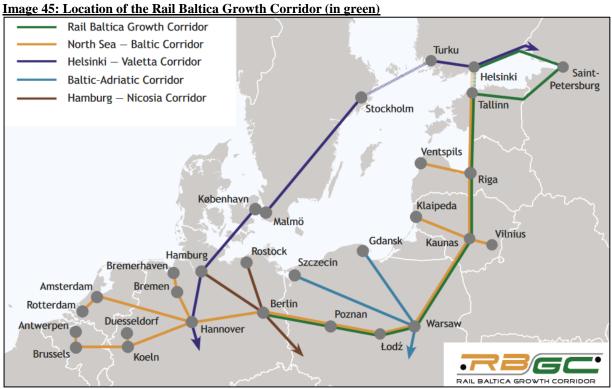
The aim of this project was to improve the coordination of transport development of the countries belonging to the Baltic Sea Region, developing a connected efficient transport system and commonly shift freight transport from the road to alternative transport modes. Common regional transport **measures** and **concepts** were to be developed to benefit from the strong transport flows through the region (ibid.). The macro-regional **action plan** for the transport development of the Baltic Sea Region was defined. It sets out a **vision**, a **strategy** and **actions to be implemented** (Interview Wierzbicki and V. Grieķere 2016). Additionally, it contains a transport development **scenario** until 2030. The coordination of national transport planning within the EU Baltic Sea macro region is to be complemented with regional measures. The project was part of an EUSBSR flagship project (Baltic Sea Region Programme 2007-2013 n.y.m).

**SCANDRIA - Scandinavian-Adriatic Corridor for Growth and Innovation** (Lead partner: Joint State Planning Department Berlin-Brandenburg; funding period 06/2009– 09/2012; ERDF funds: ca. 2.8 million Euros) (Baltic Sea Region Programme 2007-2013 n.y.l)

The project developed a **concept** for a transport corridor between Scandinavia and the Adria (Interview Sauer 2016; Interview Nagelkrämer 2016; 2016; 2016; Interview Wierzbicki and V. Griekere 2016). Although the project focussed on a transport corridor between Scandinavia and the Adriatic Sea, a case study took into account other transport connections as well – including those from Frankfurt/Oder to Poland (SCANDRIA 2012b, 5f.; 27). Freight and passenger transport infrastructure was to be improved and made more efficient and economic and political stakeholders were to be integrated into the project to ensure the implementation. In this context, also the TEN-T policy was influenced. An **action programme** for the corridor's development was developed which proposed to establish a governance platform and foster certain investment priorities. Besides that, development **strategies** on logistic

businesses and a green corridor were defined. Furthermore, several **business cases** were implemented (Baltic Sea Region Programme 2007-2013 n.y.l). The cooperation was prolonged after the end of funding. The current initiative is said to support the transport connection as well as the concerned territory in the fields of logistics, economy and regional development under the name *Scandria*® (Interview Sauer 2016).

**RBGC - Rail Baltica Growth Corridor** (Lead partner Helsinki; funding period 06/2010– 09/2013; ERDF funds: ca. 2.8 million Euros) (Baltic Sea Region Programme 2007-2013 n.y.k)



Source: Rail Baltica Growth Corridor 2013

The project promoted the development of a transport corridor (see Image 45) and contributed to its further implementation (Interview Wierzbicki and V. Griekere 2016). It promoted a multimodal freight corridor including modernized rail tracks. Also the passenger mobility on this corridor was to be improved. The accessibility of the cities and regions of the corridor was to be increased. Relevant stakeholders and decision-makers around the corridor were identified. Additonally, the decision-making procedures in the different countries were analysed. An exchange on transport policies was fostered between the involved countries and their different administrative levels. Additionally, a cooperation **platform** was established by the project to **coordinat**e the needs of the businesses and inhabitants. **Roundtables** were organized to develop a common strategy for the corridor. Both passenger and freight transport **pilot studies** were conducted. A **travel information system** was developed along the corridor. Furthermore, efficient, interoperable and multimodal logistical chains were to be planned. Based on the results, a growth strategy for the corridor was to be defined which should contribute to the economic development of the corridor area. The corridor was said to be linked with the North Sea Baltic TEN-T core network corridor to the North Sea (Baltic Sea Region Programme 2007-2013 n.y.k). The project was said to be in close contact with DG Move at the European Commission, and the priority area transport coordinator of the EUSBSR. Several partners from Berlin and Brandenburg participated in the project as well as Polish partners. However, none of them came from Lubuskie. The project focussed its efforts on the connections between the depicted nodes (see Image 45) and not the intermediate stations

(ibid.). Thus, the direct influence might be low. Still as both regions are crossed by the corridor it is expected that the project had a certain influence (IPG Infrastruktur- und 2012, 51).

ACL – Amber Coast Logistics (Lead partner Hafen Hamburg Marketing e.V.; funding period 06/2011–03/2014; ERDF funds: ca. 2.8 million Euros) (Baltic Sea Region Programme 2007-2013 n.y.a)

The project supported the freight accessibility of peripheral regions by developing multimodal logistical hubs. First of all, a **study** on the influence of national regulations and laws on transport flows was conducted on whose basis an **action plan** was developed to promote efficient multimodal transnational transport chains. **Recommendations** were developed on the establishment and maintenance of logistic centres. Two **IT tools** were created which were to assist the **exchange of information** between different stakeholders of a logistic intermodal chain and contribute to the **marketing** of logistical services. The project was to contribute to the transport objectives of the EUSBSR. The results were handed over to responsible stakeholders of the North Sea Baltic TEN-T Corridor (ibid.).

The ACL project involved partners from Brandenburg and Poland (no partner from Lubuskie). The port of Frankfurt/Oder was investigated as a case study of this project. In this context, also the cross-border flows from Poland were addressed (Port of Hamburg Marketing 2014, 8ff.).

**BSR TransGovernance - BSR TransGovernance - MLG support to the implementation of PA 11 in the EU Baltic Sea Strategy** (Lead partner Region Blekinge.; funding period 06/2012–09/2014; ERDF funds: ca. 1.3 million Euros)

The project was a successor project of TransBaltic (Baltic Sea Region Programme 2007-2013 n.y.m). It dealt with a **coordination** of national transport policies and planning to harmonize the transport development within the Baltic Sea Region as appealed by the EUSBSR. The contribution of several multi-level governance approaches and tools in the coordination of transport development in the Baltic Sea Region was **analysed**. Also the view of businesses was integrated. The aim was to increase the contribution of more stakeholders to a more efficient and environmentally friendly transport system. Transnational planning and implementation structures were **tested** on macro regional, cross-border regional, transport corridor, the East West Transport Corridor (EWTC) and in TransBaltic – three other INTERREG transport projects. The results of the project were proposed to be used for the implementation of the TEN-T policy in the Baltic Sea Region. **Good practices** of these approaches were shared in a report (Baltic Sea Region Programme 2007-2013 n.y.f).

The planning ministry of Berlin-Brandenburg was involved. Lubuskie was not involved but another Polish region (Warmian-Masurian Voivodeship). No case studies were implemented directly in the cross-border region. Still the topic and the results might be made use of by stakeholders of the cross-border region as the project developed **recommendations** for a better coordination of transport development across borders and the implementation of EU related policies. Among others, a **study** on the contribution of cross-border territorial projects on domestic transport planning was developed (ibid.). The project was an EUSBSR **flagship project** (Interview Erlandson 2016).

Eight other transport projects which were funded by the Baltic Sea Programme are depicted in **Table 73**). Projects relating to sea shipping, like CleanShip and BSR InnoShip, were excluded from the analysis because this is considered not to be relevant for the cross-border region as it is not connected to the sea.

Project name	Thematic focus	Funding period	Approx. ERDF support
BALTIC BIRD	Air transport in remote regions	06/2011 - 09/2014	2.1 million €
Baltic.AirCargo.Net	Air freight transport	06/2010 - 09/2013	2.1 million €
Baltic Biogas Bus	Using biogas in public transport buses	06/2009 - 09/2012	2.7 million €
BALTRIS	Road transport safety	06/2010 - 12/2012	1.2 million €
BGLC	Freight flows on the Bothnian logistic corridor	06/2011 - 03/2014	3.2 million €
C.A.S.H.	Safety of heavy goods transport on roads	06/2009 - 09/2012	2.3 million €
EWTC II	Environmentally friendly freight transport on the East West Transport Corridor	06/2009 - 09/2012	4.5 million €
More BalticBiogasBus	Promoting biogas public transport buses	06/2013 - 12/2014	1.3 million €
NECL II	Midnordic green transport corridor- improvement of freight and passenger transport	06/2010 - 09/2013	1.9 million €
TransBaltic EXT	Implementation of the macro regional transport action plan	06/2013 - 09/2014	0.8 million €

Table 73: Further INTERREG B Baltic Sea Region transport projects (2007-2013)

# Thematic focus of the INTERREG B projects and their objectives (2007-2013)

The INTERREG B projects of the Baltic Sea Region addressed a high variety of transport modes (see **Figure 114**). Most often the projects focussed on all transport modes at once. Besides that, waterways including rivers and the sea were adressed often as well. Furthermore, road transport was a focus. The highest share of the projects developed concepts and conducted studies, only few of them invested in hard infrastructures or pilot projects.

The **Operational Programme** focussed on a rather low number of EU transport objectives. Eight objectives were not integrated in the programme. The projects, however, seem not to have been influenced much by the programme because they addressed all EU transport related objectives (see **Figure 115**). The objective with the lowest support (freight corridors) was supported by two projects. The projects might have been influenced by the EU policy objectives directly. However, the relevance of the objectives in the EU policies, and the relevance in the funded projects vary strongly. Most often named objectives are the exchange of practices and the improvement of the transport infrastructure network.

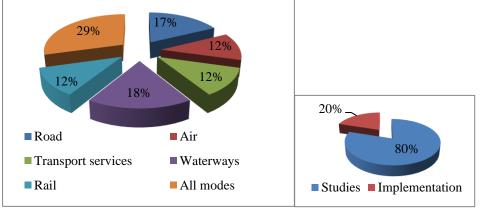


Figure 114: Character of the Baltic Sea Region projects 2007-2013 (n=15)

Source: Author, Kaiserslautern, 2017.

	0	10	20	30	40	50	60	70	80	90	100
Transport infrastructure network	1									_	93
Remove barriers, improving efficiency								67	-		75
Linking TEN-T and secondary networks					40	)			Ì		
Relieve routes/ fighting congestion			-			47					
Intermodality/ interoperability			-					-	73		
Intelligent transport systems		-	-				53				
Freight corridors			13								
New technologies/innovations (research)										87	
Improving mobility of freight								-	73		
Improving mobility of passengers							6	)			
Accessibility of remote areas				27							
Connecting neighbouring/New Member States			_		4(						
Cross-border infrastructures	-1	_	_	-	40						
User-friendliness		• 7									_
Transport services	-		_	- 1	_	- 1	_	67			
(Urban) public and soft mobility	-			27							
Transport safety	_		2	0							
Cross-border services		_		27							
Environmental and sustainable issues	-	_	_		_	_	_	_		87	
Alternative modes of transport	-	_				_			73		
Alternative fuels/ climate change	-				- 40	)					
Minimizing environmental harm	-					<b>4</b> 7					
Sustainable transport							- 6	0			
Exchange of practices/ coordination		/	/	/	/	/	/	/	/		100
■ OP Baltic Sea ■ All EU	J fun	ded pi	rojects	5		INT	ERR	EG B	projec	ets	

#### Figure 115: Contribution of the Baltic Sea Region projects (2007-2013) to the EU policy objectives

Source: Author, Kaiserslautern, 2017.

40% of the projects aim at contributing to the linkage of TEN-T and secondary networks as well as cross-border infrastructures, although transport infrastructures are to be improved by 93% of the projects. Furthermore, cross-border services shall only be enhanced by 27% of the projects although 67% of the projects aim at enhancing transport services in general. This shows, that the projects do not automatically focus on cross-border territories when being funded through INTERREG B, instead the partners can be located farther away from each other and exchange experiences and conduct studies on similar topics.

#### 2014-2020

For the funding period 2014-2020 the Cooperation Programme promotes more sustainable transport which is to be adapted to the needs of the ageing population. Also freight transport is to be improved. Furthermore, marine services and safety are to be increased. Sea transport shall be connected efficiently to the inland waterways to access the hinterland. Remote areas are to be linked to urban centres. Urban transport shall contribute to lower  $CO_2$  emissions. In general, transport shall become more efficient and intermodal. The TEN-T corridors which cross the region shall be linked to the secondary and teritiary transport networks. Intelligent and innovative transport information and support systems shall be applied.

Two calls have been conducted so far. In the following three projects from the first call are presented which focus on cross-border transport or might have influenced the transport development in the case study region to a certain degree (Interview Wierzbicki and V. Grieķere 2016). In the end of July 2017 nine transport projects of the second call were approved. However, not enough information was

available in August 2017, so they were excluded from the analysis. The third call shall be opened in autumn 2017 (Interreg Baltic Sea Region 2017, 10ff.).

Scandria2Act – Sustainable and multimodal transport actions in the Scandinavian Adriatic Corridor (Lead partner Joint spatial planning department Berlin-Brandenburg.; funding period 05/2016–04/2019; ERDF funds: ca. 2.4 million Euros) (Joint Spatial Planning Department Berlin-Brandenburg 2016)

This project is the successor of the SCANDRIA project (Interview Sauer 2016; Interview Wierzbicki and V. Griekere 2016). It continues the proceedings of the earlier project in the Scandinavian Adriatic Corridor and aims at contributing to an environmentally friendly multimodal transport development within the corridor. This includes a higher accessibility and interlinkage of the regions that are crossed by the corridor. Additionally, clean fuels are to be promoted by the development of a **strategy**. Both passenger and freight transport are to be improved and shifted to environmentally friendly transport modes. The information on transnational transport services is to be enhanced. The future transport growth is to be **estimated**. The **regional interests** are to be **communicated** to the national and European scale by a multi-level governance structure and integrated in the corridor development (Interreg Baltic Sea Region n.y.f).

**NSB CoRe – North Sea Baltic connector of regions** (Lead partner: Helsinki Uusimaa Regional Council; funding period 2016–2019; ERDF funds: ca. 3.3 million Euros) (Interreg Baltic Sea Region n.y.d, n.y.e; Helsinki-Uusimaa Regional Council n.y.)

The project aims at making use of the North Sea Baltic TEN-T core network corridor for secondary transport networks (Interview Sauer 2016). Freight and passenger transport of the Eastern Baltic Sea Region shall benefit from the corridor. The **implementation of the TEN-T policy** at the regional and local level shall be fostered. Additionally, the needs and interests of peripheral regions will be discussed at corridor level. The project involves business stakeholders and transport operators and includes their ideas into a freight strategy to increase the logistical interoperability. Particularly cross-border bottlenecks are to be removed. Urban nodes are to be integrated better in the logistical flows, ITS solutions and infrastructures are to be developed. The project will coordinate the logistic services available. This coordination at project level shall foster a better coordination of the transport development in the individual spatial planning systems of the participating countries. Future freight and passenger development recommendations for policy makers are developed jointly that connect the TEN-T network with secondary networks and support cross-border sections. The Rail Baltica corridor, already funded during the last funding period, is promoted further. The NSB CoRe project was integrated in the TEN-T North Sea Baltic work plan. It shall be used as a **platform** for cooperation between spatial and transport planners and will inform about local level initiatives (Interreg Baltic Sea Region n.y.d).

The project is a **EUSBSR flagship** project. It contains Polish and German project partners (Interview Erlandson 2016), however, none from Brandenburg or Lubuskie (Helsinki-Uusimaa Regional Council n.y.). Still, it relates to the TEN-T corridor which crosses the cross-border region and aims at enhancing transport across national borders. Therefore it is expected that the project will have some influence on the cross-border transport of the case study.

**TENTacle – Capitalising on TEN-T core transport network corridors for prosperity, growth and cohesion** (Lead partner: Blekinge; funding period 2016–2019; ERDF funds: ca. 3.5 million Euros in total) (Interreg Baltic Sea Region n.y.e)

The project shall support transport stakeholders in learning how to benefit from the TEN-T corridors. It therewith supports, among others, the connection of peripheral regions to the TEN-T core network

(Interview Sauer 2016; Interview Wierzbicki and V. Griekere 2016). The project involves partners from all member states involved in the Baltic Sea Region. Regional and local stakeholders shall be supported and informed as well as the macro-region. Plans and strategies are to be developed on the local and regional levels. The three TEN-T corridors shall be coordinated and made interoperable. At the macroregional level pilot case studies and further analyses will be conducted. In combination with transnational **discussions** it shall be effectively benefitted from the corridors in all parts of the Baltic Sea Region (Interreg Baltic Sea Region n.y.c). The project is a EUSBSR flagship project (Interview Erlandson 2016).

So far, there has been no direct relation to the cross-border region Brandenburg-Lubuskie. However, it could benefit from its support and thereby make use of the TEN-T crossing of the North Sea Baltic corridor. Therefore the project is considered to be relevant.

Besides these three projects, one further project has been funded so far (see Table 74) which does not relate to cross-border transport but promotes inland waterways. As the region is crossed by inland waterways, it might benefit from this project as well. All four funded transport projects of the current period are in parallel flagship projects of the EUSBSR (Interview Sauer 2016).

<u>1</u> a	ble /4: Further INTE	<b>KKEG D Dattic Sea Kegion transport projects</b>	(2014-2020)	
	Project name	Thematic focus	Funding period	Approx. ERDF support
_				

Table 74: Further	INTERREG B	Baltic Sea Region	transport projec	ts (2014-2020)
Table 74. Fulther	INTERREG DI	Dantie Dea Region	transport projec	(2014-2020)

Inland waterways for freight transport

Source: Hafen Hamburg Marketing n.y.; Interreg Baltic Sea Region n.y.e

EMMA

Projects relating to sea shipping, like Green Cruise Port, EnviSuM and Go LNG, were excluded from the analysis because they are not considered to be relevant for the cross-border region as the region is not connected to the sea. Further EUSBSR flagship projects which focus on sea and air transport have not been taken into account.

Total funds:

4.4 million €

03/2016 - 02/2019

# Thematic focus of the INTERREG B projects and their objectives (2014-2020)

The majority of the four projects funded focuses on multimodal transport corridors (see Figure 116) and thus, promotes all transport modes. All of them conduct studies and are not focussed on the establishment of hard infrastructures.

Because of the low number of projects, it is difficult to detect reliable trends. The Cooperation Programme covers not all EU objectives, seven are excluded, one less than during the first funding period. Thus, the programme is still much focussed. Although only four projects are analysed, all EU objectives except of two (freight corridors and transport safety) were covered which is similar to the last funding period. Thus, the projects seem to be aware of the EU policy objectives and do not only focus on the objectives of the Cooperation Programme. Because of the low number of cases, seven objectives were only named once. The four objectives 'enhance the transport infrastructure network', 'remove barriers', 'improving the mobility of freight' and 'environmental and sustainability issues' were named by all projects. Passenger transport was named only by three. Thus, freight transport seems to be more relevant, but most projects take into account both.

#### Figure 116: Character of the Baltic Sea Region projects 2014-2020 (n=4)



Source: Author, Kaiserslautern, 2017.

Additionally, the projects aim at contributing to all three **cross-border transport**-related objectives. Most of them named the linkage of the TEN-T and secondary networks, whereas cross-border infrastructures are promoted by two projects. Cross-border services are to be improved only by one project.

	0	10	20	30	40	50	60	70	80	90	100
Transport infrastructure network											
Remove barriers, improve efficiency					-				75		
Linking TEN-T and secondary networks									75		
Relieve routes/ fighting congestion											
Intermodality/ interoperability								-	75		
Intelligent transport systems						5(	)				-
Freight corridors											
New technologies/innovations (research)		-	-	25							
Improving mobility of freight		-	-		-	-	-	-			100
Improving mobility of passengers		-	-			-	-	-	75	-	
Accessibility of remote areas		-	-		-	5	)	-			
Connecting neighbouring/New Member States											
Cross-border infrastructures	4					- 5(					
User-friendliness			-	25							
Transport services								-	75	-	_
(Urban) public and soft mobility			-	25	-						
Transport safety											
Cross-border services	-			25							
Environmental and sustainability issues					-						100
Alternative modes of transport	_		-	25							
Alternative fuels/ climate change					-	5	)			-	
Minimising environmental harm	_					5(	)				
Sustainable transport		-	-		-	50	)			-	
Exchange of practices/ coordination		)	-	-	<b>_</b>	<u> </u>	_				
CP Baltic Sea EU policy 2014-2020 INTERREG B Baltic Sea Region (n=4)									)		

Figure 117: Contribution of the Baltic Sea Region projects (2014-2020) to the EU policy objectives

Source: Author, Kaiserslautern. 2017.

There are no large differences to the programme and projects funded during the last funding period. In both cases the projects covered more objectives than the programmes, which were rather focussed. This did not have any effect on the projects. During both funding periods the projects did not show dependencies on the relevance of the objectives promoted at EU level. However, the funded projects' focus during the last funding period was distributed on more transport modes than during the second funding period. Still, more transport modes might be added in the future projects as the funding period has not been completed, yet.

# TEN-T

In the following TEN-T projects which influenced the cross-border transport of the cross-border region Brandenburg-Lubuskie are described. Only projects with clear focus on cross-border transport are taken into account. Projects with general investments in EU-wide infrastructures were excluded from the analysis.

# 2007-2013

During the last funding period (2007-2013) no priority projects have been defined that concern the crossborder region Brandenburg-Lubuskie. However, a rail freight corridor was defined (Interview Kissler 2016). Additionally, four smaller TEN-T projects were funded with a potential relevance for cross-

border transport. Some contained all countries of the Baltic Sea Region, one concerned the above named rail freight corridor and a German road section. One Polish project aimed at implementing ERTMS on a Polish railroad from the Polish state border, close to Frankfurt/Oder to Warsaw. However, the project was cancelled (TEN-T EA 2014a). Therefore it is not described beneath. National transport projects without potential benefit for transport flows across the border were not taken into account in this analysis. A map of the projects' locations can be found in the **appendix**. In the following, the four projects's aims are described shortly.

**2009-EU-90002-S** - Baltic Transport Outlook 2030 (funding period: 05/2009 – 12/2011; EU support: 0.5 million Euros) (European Commission and INEA 2012)

This project conducted a comprehensive study on current transport flows and status quo of transport infrastructure in the Baltic Sea Region including a development forecast until 2030. Before, this data had been missing because of different and incomparable national approaches. Based on this information, macro regional transport planning actions were to be developed (ibid.)

**2011-EU-95090-S** Preparatory studies and activities of the organisational structures of Rail Freight Corridor 8 (Bremerhaven/Rotterdam/Antwerp-Aachen/Berlin-Warsaw-Terespol (Poland-Belarus border)/Kaunas) (funding period: 04/2012 – 12/2014; EU support: approx. 1.7 million Euros) (European Commission and INEA 2014)

The project developed a preparatory study on the implementation of the European rail freight corridor 8 between Bremerhaven respectively Rotterdam via Berlin, Warsaw to the Ukrainian border respectively Kaunas. The project prepared a transport market study and documented the study to contribute to the corridor implementation plan (ibid.).

**2012-DE-91018-P** - Upgrade of the A12 between Spreeau three-leg motorway interchange and Fürstenwalde-West junction; operational km 1+142 until 17+425 (funding period: 03/2013 – 12/2015; EU support: approx. 2.6 million Euros) (European Commission and INEA 2015a)

This project concerned a motorway section that is situated between Potsdam and the Polish border, but solely on German territory. The southern carriageway was renewed (ibid.).

**2013-EU-50003-P** – Crocodile (funding period: 01/2013 – 12/2015; EU support: approx. 6.3 million Euros) (European Commission and INEA 2015b)

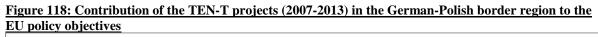
The project aimed at improving the travel information services by setting up and maintaining a data exchange platform of several EU member states including Germany and Poland. A focus was laid on the harmonization of safety and truck parking information. Furthermore, the project was to facilitate the coordination of national services and strategies as well as the implementation of ITS services across borders. Thereby also traffic flows were to be made more efficient and congestions were to be reduced. To collect comparable data, additional EU infrastructure for data collection was established. Additionally, the member states had to create access points for users to that data (ibid.).

#### Thematic focus of the TEN-T projects (2007-2013) and their objectives

The TEN-T funds supported few projects which concerned the cross-border region between Brandenburg and Lubuskie. Several projects solely concerned national tracks without relation to the bordering country. No project was funded in Lubuskie which concerned the transport to Brandenburg. The one that had been planned but discontinued would have been very relevant for the cross-border rail development.

Figure 118 shows that the TEN-T projects have only contributed to some objectives. Most environmental objectives were overlooked. Also cross-border infrastructures and the linkage of TEN-T

to secondary networks were not supported. Solely cross-border services were mentioned in one project. Several relevant EU objectives were not taken into account. However, because of the low number of cases it is difficult to derive reliable results. Still, the degree of the EU policy promotion of the objectives seems not to be decisive for the choice of objectives.

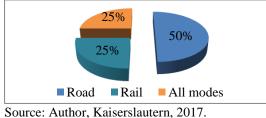


	0	10	20	30	40	50	60	70	80	90	100
Transport infrastructure network	1										<b>1</b> 100
Remove barriers, improve efficiency											<b>1</b> 00
Linking TEN-T and secondary networks	1										
Relieve routes/ fighting congestion						50					
Intermodality/ interoperability				25							
Intelligent transport systems				25							
Freight corridors				25							
New technologies/innovations (research)											
Improving mobility of freight											<b>1</b> 00
Improving mobility of passengers									75		
Accessibility of remote areas											
Connecting neighbouring/New Member States											
Cross-border infrastructures	1										
User-friendliness	_			25							
Transport services	- 1			25							
(Urban) public and soft mobility	_										
Transport safety				25		_	_	_			
Cross-border services				25							
Environmental and sustainability issues	- 1			25							
Alternative modes of transport	- 1			25							
Alternative fuels/ climate change	-										
Minimising environmental harm	_										
Sustainable transport	-										
Exchange of practices/ coordination		/	/	/	/	/	-		75	J	J
EU policy 2007-2013				I 🗖	EN-T	` proje	cts (n	=4)			

Source: Author, Kaiserslautern, 2017.

Half of the four described projects fostered hard transport infrastructures and the other half invested in studies. Additionally, road transport was fostered by two projects, whereas the other two projects fostered rail transport and all modes at once (see **Figure 119**).

#### Figure 119: Character of the TEN-T projects (2007-2013) (n=4)



# 2014-2020

The member states have been involved in the routing of the core network corridors (Interview Kissler 2016). Lubuskie is said to fight for two additional transport nodes on the North Sea Baltic corridor to enable the region to benefit from the long distance infrastructures. However, so far funds have been missing (Interview Nowicki 2016).

The **TEN-T North Sea Baltic corridor work plan** of 2015 aims at particularly improving the rail transport connections of the Baltic States to the rest of the EU. The ports of the Baltic Sea and North Sea shall be connected multimodally over land. Transport management systems are to be implemented. The new and old member states are to be connected better mutually. Marine and logistical infrastructures shall be updated based on innovations to become more environmentally friendly. Alternative fuels shall be promoted for all modes. Rail infrastructure shall be upgraded to increase the travel speed. Rail services shall become more attractive. The national rail regulations shall be harmonized. Also the inland waterway infrastructure is to be upgraded and river information services are to be increased. The hinterland connections of ports shall be improved. Passenger and freight transport shall be moved to alternative transport modes. Intelligent transport systems are to be applied on the motorways and the latter shall be expanded. Missing links are to be constructed. Additionally, road transport shall become safer. In general the coordinated transport development across borders is to be increased (Trautmann 2015, 2ff.).

The TEN-T North Sea Baltic core network corridor defined Frankfurt/Oder and Berlin as nodes of the corridor. The closest Polish node to the German border is Poznan which is situated outside the Brandenburg-Lubuskie cross-border region (European Commission n.y.c).

In the following, three projects of potential relevance for the cross-border region which have been funded so far are presented.

**2014-EU-TM-0217-S** – Establishing Rail Freight Corridor North Sea-Baltic and improving conditions for international rail freight transport (funding period: 01/2015 - 12/2020; EU support: approx. 4.1 million Euros)

The project supports the implementation of rail freight on the North Sea Baltic corridor which entails a section that links Brandenburg and Lubuskie. The technical and operational conditions are to be improved. The coordination across borders is to be increased. Two studies are to be conducted. Thereby it shall be made use of the TEN-T core network corridor (Innovation and Networks Executive Agency 2015d).

**2014-EU-TM-0563-W** – Crocodile 2 (funding period: 01/2015 – 12/2018; EU support: approx. 8.3 million Euros)

Similar as during the last funding period, this project aims at improving the coordination and harmonization of traffic management across borders. ITS services are to be developed across borders and cross-border transport is to be enhanced. The safety is to be increased by better information services. The project involves several countries, among others, Poland and Germany (Innovation and Networks Executive Agency 2015b).

**2015-DE-TM-0363-W** – Design and equipment of ERTMS for six border crossing corridor sections as well as two gap closings on German TEN core network (funding period: 02/2016 – 12/2020; EU support: approx. 24.9 million Euros)

The project aims at facilitating the ERTMS infrastructure in several TEN-T core network corridors' cross-border sections, among others, between Germany and Poland. Thereby the interoperability across borders shall be improved (Innovation and Networks Executive Agency 2016a).

#### Thematic focus of the TEN-T projects (2014-2020) and their objectives

Two of the three projects support rail transport, the other one all modes. Two studies are to be conducted and one concrete infrastructure project is to be implemented.

<u>LO policy objectives</u>											
	0	10	20	30	40	50	60	70	80	90	100
Transport infrastructure network								_			
Remove barriers, improving efficiency											
Linking TEN-T and secondary networks		_	_	_	_						
Relieve routes/ fighting congestion		-									-
Intermodality/ interoperability					33						
Intelligent transport systems					55			67			
Freight corridors					33			/			
New technologies/innovations (research)					55						_
Improving mobility of freight											
Improving mobility of passengers		-						67		-	
Accessibility of remote areas											
Connecting neighbouring/New Member States		•									
Cross-border infrastructures	-			_		- 1		67			
User-friendliness				-	33						
Transport services				-				67			
(Urban) public and soft mobility					-						
Transport safety					33						
Cross-border services								67			
Environmental and sustainable issues											
Alternative modes of transport	_				·						
Alternative fuels/ climate change	_										
Minimizing environmental harm											
Sustainable transport	_										
Exchange of practices/ coordination	_	,	-	,	,	-	-	<b>6</b> 7	7	J	J
North Sea Baltic Corridor		All I	EU fur	nded p	roject	5	I	TEN	I-T (n=	=3)	
		4 MII L		acu p	10,000			1 121	· · (II-		

# Figure 120: Contribution of the TEN-T projects (2014-2020) in the German-Polish border region to the EU policy objectives

Source: Author, Kaiserslautern, 2017.

Because of the low number of projects it is again difficult to derive reliable tendencies. Generally it can be seen in **Figure 120** that the corridor work plan promotes all EU objectives except of one (urban public and soft mobility) and thus, is very broad and not selective. The three projects, however, aim at supporting only some of these objectives. Neither environmental objectives nor the linkage of TEN-T and secondary networks are promoted. Freight transport is promoted little more than passenger transport. Cross-border services and infrastructures are promoted by two of three projects. Thus, the corridor work plan does not effectively steer the projects' focus because it itself is not focussed on certain objectives.

Similar to the last funding period, only few TEN-T projects with relevance for the cross-border region have been funded despite the ambitious TEN-T corridor work plan. Because of the low number of cases it is difficult to derivate reliable results. However, the degree of the EU policy promotion of the objectives seems not to be decisive for the choice of objectives. During both funding periods the projects conducted studies or developed hard infrastructures. The contribution to the cross-border transport-related objectives was increased compared to the last funding period. The linkage of the TEN-T and secondary networks, however, seems not to be in the focus of TEN-T projects.

Also in this cross-border region the '**Cross-border sections**' **call** for projects that aim at developing missing cross-border transport infrastructures (Interview Kiffer 2016) besides the predefined projects of the core network corridors might be an incentive for more cross-border transport investments. Because the decision on funding was taken in the end of July 2017 the projects could not be integrated in the analysis anymore. The next section evaluates the influence of the EU funded projects on cross-border transport.

# Influence of EU funded projects on cross-border transport

Before comparing the three different programmes and their projects and grouping the two different INTERREG B programmes in one category the latter are to be compared to see if strong differences exist. Because of low numbers of projects during the current funding period it is forbeared to compare these projects as well.

(2007-2013) to the EU policy objectives											
	0	10	20	30	40	50	60	70	80	90	100
Transport infrastructure network						- i	,			_	
Remove barriers, improve efficiency											
Linking TEN-T and secondary networks							-	-			
Relieve routes/ fighting congestion											
Intermodality/ interoperability											
Intelligent transport systems											
Freight corridors											
New technologies/innovations (research)											
Improving mobility of freight											
Improving mobility of passengers								ŗ			
Accessibility of remote areas				• •							
Connecting neighbouring/New Member States											
Cross-border infrastructures											
User-friendliness		-									
Transport services								•			
(Urban) public and soft mobility				•	- i - i						
Transport safety											
Cross-border services				, i							
Environmental and sustainability issues										•	
Alternative modes of transport				-		_	_				
Alternative fuels/ climate change				_							
Minimising environmental harm				-		•		- i '			
Sustainable transport			_			_		,			
Exchange of practices/ coordination											
■ EU policy 2007-2013 ■ IN	TER	REG E	3 proje	ects	-		<b>FERR</b>				-
Ce	ntral	Europ	e (n=2	20)		Bal	ltic Se	a Regi	ion (n=	=15)	

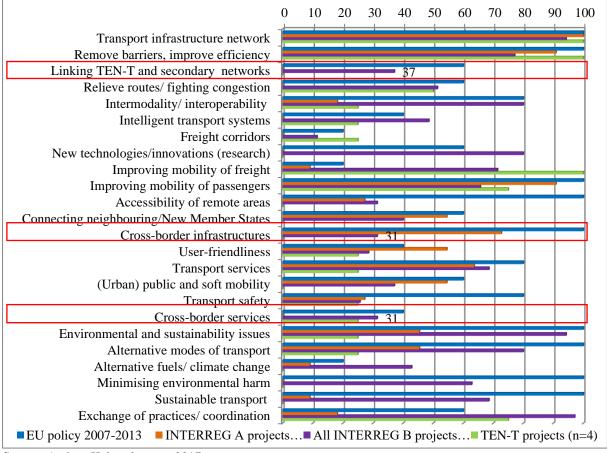
Figure 121: Contribution of the Central Europe and Baltic Sea Region Operation	onal Programmes' projects
(2007-2013) to the EU policy objectives	

**Figure 121** shows that the two INTERREG B programmes' projects aim at contributing to most EU objectives to a similar degree. Only in three objectives the contribution varies to a stronger degree. Thus, they can be grouped without falsification of the results.

**Figure 122** shows that the projects of the three different programmes INTERREG A, INTERREG B and TEN-T have different focuses. The TEN-T projects focus on least objectives (18) followed by the INTERREG A projects (19). The INTERREG B projects cover all objectives (24). This tendency could be observed during both funding periods. However, it needs to be taken into account that a higher number of INTERREG projects was funded than in the other two categories.

Some EU transport-related objectives are strongly supported by projects from all three programmes: The transport infrastructure network shall be improved, barriers removed and the passenger mobility shall be enhanced. Freight transport is strongly promoted by the TEN-T and INTERREG B, whereas it is not very relevant for INTERREG A.

Source: Author, Kaiserslautern, 2017.



#### Figure 122: Contribution of the different EU funded projects to the EU policy objectives

Source: Author, Kaiserslautern, 2017.

The projects' contribution to the EU objectives varies and depends on each objective. No concrete pattern can be drawn. On average, the INTERREG B projects are most similar to the EU objectives with a deviation from the objectives' relevance in the EU policies of 24.1%. The INTERREG A projects deviate to 38% and the TEN-T project to 43%.

The three **cross-border transport-related objectives** are promoted most each by a different programme: The linkage of TEN-T and secondary networks is promoted most by INTERREG B projects, cross-border services by the TEN-T programme and cross-border infrastructures by INTERREG A. Looking at the amount of projects which stand behind these percentages, nine INTERREG A projects contributed to cross-border infrastructures, three TEN-T projects to cross-border services and 20 INTERREG B projects to the linkage of TEN-T and secondary networks. Thus, the contribution of INTERREG B is most decisive. Because of the higher number of INTERREG B projects compared to the other two programmes, also the contribution to cross-border infrastructures (14 projects) and services (16 projects) seems to be more relevant than the support of the INTERREG A and TEN-T projects. Still, many other INTERREG B projects do not support cross-border transport objectives. Instead the project partners exchange experiences or focus on similar issues without territorial vicinity.

Considering the influence of the **programmes** objectives, the INTERREG A programmes of the two funding periods are very focussed on a restricted number of EU transport objectives. This is also true for the INTERREG B programmes, with the exception of the Central European Programme of the first funding period. The TEN-T corridor work plan, however, is very broad and mentions all EU objectives. Thereby it does not steer the potential project's focus in a certain direction.

In practice, solely the INTERREG A projects remain their focus and only relate to some of the objectives, whereas the INTERREG B projects cover almost all objectives and do not restrict them on the objectives defined by the programme. An exception is the Central European Cooperation Programme for 2014-2020. It seems to have strongly influenced the objectives of the projects. The TEN-T projects in turn have only supported some of the objectives promoted by the corridor work plan. This focus of the INTERREG A and TEN-T projects, however, might also be due to the low number of projects compared to the INTERREG B projects.

The projects dealt with several EU transport objectives. Thus, the three funding programmes seem to facilitate the implementation of the EU policies' objectives. The EU funded projects did not particularly aim at contributing to objectives which had the highest relevance in the EU policies. In the case programmes focussed on certain objectives but the projects dealt with additional ones the EU discourse seems to have contributed to this choice at least to a certain degree.

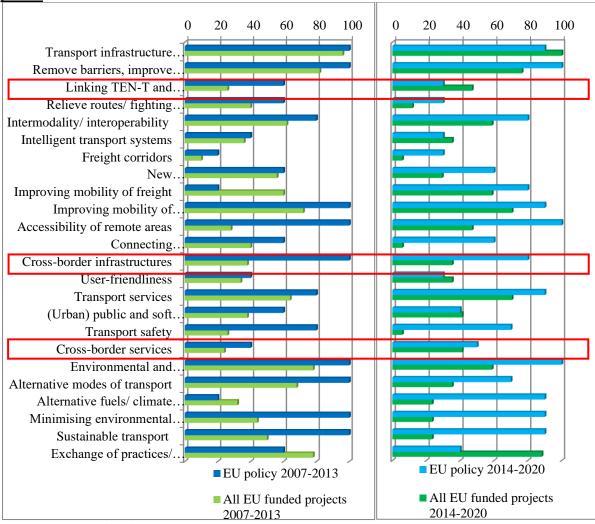


Figure 123: Contribution of the EU funded projects to the EU policy objectives during the two funding periods

Source: Author, Kaiserslautern, 2017.

When comparing the contribution of all funded projects of all funding programmes during the two different funding periods (see **Figure 123**) it can be seen that the average deviation from the relevance of the objectives in the EU policies is little lower during the first funding period. Thus, here the relevance of the objectives promotion is more similar to the projects funded (26.6% deviation). During the second funding period the deviation is higher (31.9%). However, the support of the three cross-border transport-related objectives is more similar between 2014 and 2020.

Compared to the first funding period, the project's contribution to the EU objectives has changed, as have the EU policies, however, no direct relation between the two changes can be detected. In several cases the project's support has grown although the objective was promoted less at EU level and vice versa. Thus, the direct EU influence seems to be limited or needs some more time until the projects are adapted to the new policy objectives' focuses.

The contribution on the cross-border transport in the cross-border region Brandenburg-Lubuskie of the two **TEN-T projects** which invested in transport infrastructures is not easy to evaluate as they improved large scale transport axes which cross the region. These, however, are usually not used for internal transport. Besides that, however, studies or the development of travel information services were supported. The latter are considered to be of added value for the transport flows between Brandenburg and Lubuskie because the exchange in EU projects is expected to bring stakeholders from the two and further countries together and help to coordinate transport across borders to a certain degree.

The **INTERREG B** projects with relation to cross-border transport supported the development of studies, platforms, exchange of experiences, tools, analyses and action plans which were often tested in pilot studies. Some of the pilot studies directly concerned the cross-border region. In other cases the experiences might be copied and be of benefit although no regional stakeholders from the cross-border region were involved.

The **INTERREG A** projects are most concrete as they focus on the cross-border region. Despite the hard infrastructure projects, they seem not to be very visible for the public (see **Figure 124**). Only two of the 12 INTERREG A projects were mentioned. Ten further INTERREG B projects were named by the interviewed stakeholders. The most popular project was Scandria. No TEN-T projects were reported. Their effects seem not to be very visible in the cross-border transport practice.

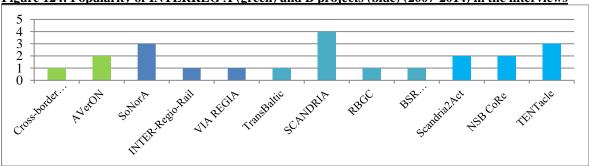


Figure 124: Popularity of INTERREG A (green) and B projects (blue) (2007-2014) in the interviews

Five years after the EU accession of Poland, the Polish National Ministry of Regional Development evaluated the influence of INTERREG (respectively European Territorial Cooperation) on the transport development and integration across borders to be rather low. The cross-border projects were considered to dominantly focus on tourism, education and culture (Ministry of Regional Development Poland 2012, 82) and not on transport. It criticized further that transport investments would not be used to make use of regional development potentials and contribute to a higher accessibility of many Polish regions. Investments into rail transport were said not to lead to a higher usage of this transport mode (ibid., 95). The analysis, however, showed that several projects focussed on transport objectives and some of them also invested concretely in cross-border transport.

In the following section, transport initiatives which were implemented in the cross-border region without EU funds are presented.

Source: Author, Kaiserslautern, 2017.

# Initiatives without EU funding

The non-EU funded alternative initiatives are considered to have been developed based on an initial exchange on the **round table 'transport'** (Interview Kray 2016) or based on **regional initiatives** combined with **cities** and the **civil society** (Interview Sauer 2016). Among others, the projects were started because of local **needs**, **demands** or **challenges** which repeatedly got **political support** in position papers (Interview Kray 2016).

#### Projects on transnational level

At transnational level some studies and platforms were developed.

The round table 'transport' of the Oder partnership is said to have initiated some **coordinated transport infrastructure expansions** in the regional and long distance rail transport and maintained the crossborder transport offer, based on German-Polish governmental agreements (Interview Neumann 2016). Additionally, it contributed to a general coordination of the Polish and German regional levels. This is considered to influence the cross-border transport development because of the formulation of agreements on the future development (Interview Kray 2016). Besides that, regular expert meetings on investments in cross-border road connections and on the coordination of the implementation processes were reported to take place. These meetings mainly focussed on the establishment of cross-border bridges (Interview Neumann 2016).

Additionally, a **map of investment intentions** at the Polish-German border was developed on behalf of the Polish Infrastructure Ministry in order to help coordinate the development. It includes the regional development strategies of three Polish regions, among others, Lubuskie (Ministry of Infrastructure Poland n.y.). This map was complemented by a map on investment strategies on the German side of the border region in 2012 (Prechtel and Habermann 2012).

The cooperation in the SCANDRIA INTERREG B project was prolonged after the end of funding in a coordination platform, named "**Scandria®Allianz**" (Gemeinsame Landesplanungsabteilung Berlin-Brandenburg 2016b). It shall support the Baltic Adriatic TEN-T corridor development which crosses the cross-border region in north-south direction (ibid.). Therefore it does not primarily focus on the east-west transport flows of the cross-border region.

The **DPERON** (*Deutscher Polnischer Entwicklungsraum Oder-Neiße*) project was realised in 2008 and evaluated the **results of cross-border cooperation** in the fields of spatial planning and transport infrastructures (Interview Schiwietz 2016).

#### Projects on cross-border regional level respectively domestic level

At cross-border regional level several projects were financed either by the German or Polish side that might be of added value for the whole cross-border region.

The regional planning department of Berlin and Brandenburg developed a platform to foster an exchange between stakeholders from different administrative levels, private stakeholders and different ministries to strengthen the further development of the **urban node Berlin-Brandenburg** of the TEN-T network in which several TEN-T corridors cross each other – one of them is the North Sea Baltic Sea Corridor (Gemeinsame Landesplanungsabteilung Berlin-Brandenburg 2016a; Interview Sauer 2016).

On the German side several **railway infrastructure** investments were conducted close to the Polish border. Between 2008 and 2012 the high speed rail road between Erkner (DE) and Frankfurt/Oder (DE) was expanded so that the travel speed could be increased (Ministerium für Infrastruktur und Landwirtschaft des Landes Brandenburg 2012, 14). Additionally, the travel speed of the regional rail road between Strausberg (DE) and Küstrin-Kiez (DE) at the Polish border was increased (ibid., 15).

Furthermore, investments led to a higher train travel speed between Grunow (DE) and Frankfurt/Oder (DE).

On the Polish side the **ports** in Kostrzyn and Slubice were modernized for passenger transport on the Oder river (Sejmiku Województwa Lubuskiego 2012, 26). Additionally, the **rail** track in Rzepin which has a supraregional relevance, also for cross-border transport to Germany, was modernized (ibid., 26). Furthermore, the passenger rail track E20 between Berlin and Warsaw is said to have been fundamentally modernized (Zarządu Województwa Lubuskiego 2016, 36).

Besides that, a European Economic Interest Grouping for the so-called 'Eastern Railway' rail connection between Berlin – Gorzów and Piła was established in 2006 by Polish and German stakeholders. It mainly aimed at promoting and improving the passenger and freight transport on this rail connection. Besides that, the economic and touristic development along this track was to be enhanced. The travel speed was to be increased and more connections to be offered. Additionally, travel information in the train stations was to be offered in three languages. The grouping was transformed into the ,TransOderana' EGTC in 2013 (IHK Ostbrandenburg n.y.).

#### Projects on cross-border local level

At cross-border local level three non-EU funded projects were reported.

First, there is a successful **cross-border bus connection** between Frankfurt/Oder-Slubice. At the end of 2016 a consultation with the inhabitants of the twin city **Guben-Gubin** was said to be planned to find out their interest in a second **cross-border bus or tram connection** across the border in the cross-border region between these two border cities (Interview Kramer 2016).

Third, a **commuter analysis** was conducted for the **Euroregion** PRO EUROPA VIADRINA to complement an existing German commuter analysis which does not differentiate between the places of origin of the Polish commuters. In the MORO project different types of transport flows shall be integrated (workers, tourists and students). It is expected that many Polish commuters drive across the border to Germany with their car and then take the train further to their work place to benefit from cheaper tickets. The study results shall be used to demonstrate the needs and underline the relevance of public transport to promote its expansion (Interview Schiwietz 2016; Interview Kramer 2016).

Besides that, the various **twinnings of cities** within the cross-border region are considered to be of high relevance for the cooperation across borders. Out of these contacts concrete cross-border transport project ideas are said to have been developed (Interview Markus 2016).

At the three different levels some cross-border transport initiatives were developed without ETC and TEN-T funding. In one case an EU funded project was prolonged after the end of funding. Many transport infrastructures projects were conducted individually in the two countries but might be of added value for cross-border transport flows. Besides that, transnational platforms and studies exist which are said to have coordinated transport investments on both sides of the borders. Even the TEN-T development is to be coordinated. Coordination takes place mainly between the German and Polish border regions, for the whole German-Polish borderland. However, it is criticized by the interviewed stakeholers that the establishment of national **roads and motorways** would not be coordinated efficiently across borders, except of the creation of **bridges**. Besides that, the national levels are said to plan the road development on their territories **independent** from the planning of their neighbours (Interview Schiwietz 2016) despite the cross-border institutions. Furthermore, the cross-border initiatives between Germany and Poland are said to be very **abstract** and **not concrete enough** to initiate cross-border transport improvements (ibid.). Still, some more concrete cross-border local initiatives exist in the case of cross-border services. The cross-border institutions seem to be of relevance for the

coordination of the cross-border development but cannot ensure a fully coordinated development because of missing competences and a dominance of national decision making.

More challenges which were experienced in the cross-border cooperation in the field of transport are presented in the next section.

# Challenges in the development and implementation of cross-border transport projects and initiatives

The interviewed stakeholders perceived several challenges when developing and implementing crossborder transport projects and initiatives. The challenges are grouped in the following eight categories and presented beneath:

- Finances
- Technical barriers
- Objectives
- ♦ Language
- Coordination structures
- Political will
- Information
- Time

#### <u>Finances</u>

The **financing systems** of public transport are said to be very different which challenged the cooperation across borders (Interview Klauza 2016; Interview Sauer 2016; Interview Neumann 2016). Besides that, Germany and Poland are considered to have different **investment speeds** (Interview Klauza 2016)

Often a **lack of funds** was reported, particularly in the field of cross-border public transport (Interview Nowicki 2016; Interview Neumann 2016). The lack of financial means is acknowledged by Markus, therefore the INTERREG A support is considered to be of high relevance for the implementation of cross-border transport projects (Interview Markus 2016). The expansion and electrification of cross-border rail tracks in the near future is said to be hampered although a need was expressed because of missing funds. Particularly the transport on the Polish side is said to strongly lack financial investments (Interview Dill 2016).

The regional transport of the Polish voivodeships is said not to be supported **reliably** by the national level. New regional transport connections are said to have been ceased after few months of operating despite a strong demand because of a sudden shortage of funds. This has hampered a regular provision of services (Interview Kray 2016).

It is criticized that the investments in cross-border transport infrastructures of the Polish-German border area are **focussed on three main development axes** with the border crossings near Szczecin, Frankfurt/Oder and Dresden. Therefore, projects that concern further border crossings are supported in a lower probability (Interview Ullrich 2016).

Besides that, the results of investments in transport infrastructure are said to take a **long time** and thus, cannot directly be measured (Interview Erlandson 2016) which might lead to public dissatisfaction and impatience.

#### Technical barriers

The so-called non-tariff barriers to trade are considered to be strong challenges for cross-border transport and the INTERREG cooperation.

An example are the **different national technical and safety requirements** on rail locomotives which led to long and **difficult admission** processes in Poland and Germany for foreign vehicles that shall navigate in both countries. Therefore in the cross-border region between Poland and Germany **not many** 

**locomotives** were said to be available to link cross-border tracks (Interview Kurnol 2016; Interview Dill 2016; Interview Sauer 2016). The technical and legal challenges are acknowledged by Klauza, Nowicki, Sauer, Neumann and Kray (Interview Klauza 2016; Interview Nowicki 2016; Interview Kray 2016; Interview Sauer 2016; Interview Neumann 2016). The different **national transport regulations** and **systems** in rail transport are said to influence the implementation of projects as well. As the **harmonization of rail infrastructures** by the EU is said not to have worked out so far, it is wished that the EU financially supports the challenged and expensive non harmonized cross-border rail transport. Besides that, the different **standards in transport logistics** are said to lead to long standing times (Interview Sauer 2016). Another example concerns the **social insurance systems**. The employees from the different countries belong to different social insurance systems which could hamper the work on foreign territory (Interview Kurnol 2016).

#### **Objectives**

Poland is said to have strongly focussed its funds on the expansion of hard infrastructures because of a need to catch up with the old member states. In this context they have been supported strongly with TEN-T and CEF funds and the Cohesion Fund. Germany is said to focus its investments more on soft measures. Therefore they are said to have been involved strongly in the INTERREG programmes. However, the number of Polish INTERREG partners is said to have been growing in the last years (Interview Wierzbicki and V. Grieķere 2016).

#### <u>Language</u>

The coordination of transport across borders can be hampered by language barriers (Interview Kissler 2016; Interview Markus 2016; Interview Dill 2016; Interview Neumann 2016; Interview Ullrich 2016). A low amount of German pupils learns Polish (Ministerium der Justiz und für Europa und Verbraucherschutz des Landes Brandenburg 2015, 13f.). It is said to be difficult and troublesome to **directly communicate** with the Polish side and clarify current issues which prevents a fast coordination. Therefore the VBB is said to employ a Polish speaking associate to facilitate the communication and coordination with the Polish transport stakeholders and keep in contact with them (Interview Dill 2016). The language barrier also increases the **costs of coordination** because interpreters were needed (Interview Neumann 2016)

#### **Coordination structures**

Despite the coordination in several established cross-border institutions the cooperation is said to strongly rely on the different domestic structures. State structural differences, i.e. concerning the administration, competences and the jurisdiction are said to have led to difficulties (Ministerium der Justiz und für Europa und Verbraucherschutz des Landes Brandenburg 2015, 13f.). As the analysis of the two countries' planning systems showed, the two countries are organized differently so that the responsibilities were distributed on different administrative levels. This could lead to implementation challenges of common projects (Interview Markus 2016; Interview Neumann 2016). For instance, crossborder municipalities could very rarely directly coordinate their transport needs across borders. Instead, they needed to contact the domestic responsible higher levels because they themselves were not competent to implement cross-border infrastructures (Interview Schiwietz 2016). The responsibilities for **public transport** cross-border connections are said not to be clarified in Poland. The definition of transregional connections is considered to be unclear as it would only to be applied when more than two regions were connected. If the train connects Berlin via Brandenburg to Lubuskie this requirement might be met if Brandenburg and Berlin are counted as different regional borders (Interview Dill 2016). In the public procurement, Brandenburg invites tenders internationally whereas Lubuskie tries to involve its regional rail transport providers (Interview Neumann 2016).

Furthermore, the cross-border transport development is said to be strongly influenced by **stakeholders** and their proactiveness and **communication skills**.

#### Political will

In Poland the responsibilities of **persons** are considered to change frequently because of **political elections**. This is said to hamper the development of cross-border projects because the focus of new persons might change and the project might be supported less so that it could not be implemented as it was intended earlier. Because of this, **continuous working relations** which are considered to be very relevant for infrastructure developments were hampered. In complicated issues **mutual knowledge** was said to be of high relevance (Interview Markus 2016; Interview Neumann 2016).

**Political support** is said to be very relevant. Particularly the **national level** should be aware of the high relevance of cross-border transport and support the regional and subregional initiatives, even if the regional level was competent (Interview Kramer 2016).

Also **mental barriers** at the national borders are said to have persisted because of **socio-cultural differences** in the two countries. This is said to hamper a commonly steered cross-border development (Ministerium der Justiz und für Europa und Verbraucherschutz des Landes Brandenburg 2015, 13f.). Within the last two years many barriers, e.g. **cross-border fences**, **walls and controls**, were **reestablished** at the national borders because of the refugee crisis and terrorist attacks. This has hampered cross-border transport again (Interview Ritt 2016; Interview Wierzbicki and V. Grieķere 2016).

# Information

It is criticized that there is no **travel information** in Polish language in German trains or buses which navigate close to the Polish border (Interview Ullrich 2016).

Furthermore, **data** on cross-border transport flows is said to have been missing so far which could have been used in the reasoning for new transport development needs and on whose basis the cross-border transport development could be efficiently steered (Interview Schiwietz 2016).

#### <u>Time</u>

The process from cross-border transport project ideas and objectives to implemented transport projects is said to be **very time consuming** because of a **high number of involved partners** with different objectives, different **legal systems** and different state **organizations** (Interview Wierzbicki and V. Grieķere 2016; Interview Markus 2016). Poland is centralistically structured, the Germany decentralised. A multitude of actors needed to be involved. Thus, projects could usually only be implemented in a **long-term perspective** (Interview Markus 2016).

The experiences depicted by the interviewed stakeholders show that the cooperation across borders – particularly in the field of transport – generally is not an easy undertaking. The challenges often concern EU funded <u>and</u> non-EU funded projects and are the reason for the still existing barriers across borders as not all of them are of financial nature.

The next section compares the contribution of the EU funded and non-EU funded projects on the crossborder transport in the Brandenburg-Lubuskie cross-border region.

# Comparison of cross-border transport projects with and without EU support

Like the EU funded projects, the cross-border projects without EU financial support refer to some of the EU objectives. The latter focus their investments on the improvement of the (cross-border) transport infrastructure network, cross-border services and the exchange of practices respectively the better coordination across borders. The EU funded projects' objectives are described more in detail in the

project applications to show the contribution to the EU objectives in order to be accepted for funding. Thereby additional objectives might be reached which would not be addressed in domestic projects.

A higher number of EU funded projects has been implemented than those non-EU funded initiatives. This might be due to an increased visibility and better communication of projects at EU level. However, it was tried to take stock of conducted projects and planned investments as part of non-EU funded initiatives as well. Besides that, it needs to be taken into account that the INTERREG B projects involved also stakeholders from other countries besides Germany and Poland and thus, have produced results which were not always targeted on the cross-border region. Therewith the number of relevant projects is already reduced.

Compared to the INTERREG B projects, the non-EU funded projects have a more concrete territorial scope and might therefore be perceived to be more concrete. However, less innovative results might be achieved. The EU projects strongly promoted multi-modal transport improvements, whereas most of the non-EU funded projects seem to have focussed on individual transport modes such as rail roads.

The financing of the EU funded projects is secured and facilitates the implementation. However, the support of the project and its cooperation is usually restricted to the funding period and might not be sustainable whereas the cooperation in the established cross-border institutions is ensured for a long time period. Still, challenges were reported related to frequent personal changes and responsibilities. The EU funds can motivate stakeholders to cooperate and improve the existing cross-border situation.

The next section evaluates the influence of the two EU policies and their related funds on cross-border transport.

# 6.4.6 Impact of EU policies and funds on cross-border transport - added value?

This chapter summarises the findings regarding the influence and relevance of the ETC (INTERREG) and TEN-T policies and their associated funds on cross-border transport development in the cross-border region of Brandenburg-Lubuskie.

# ETC/INTERREG influence

The influence of the ETC policy is evaluated on three levels. First, the promotion of cross-border transport in the ETC policy documents and the domestic policy documents is described. Second, the influence of the Cohesion Policy on the INTERREG A and B Operational and Cooperation Programmes is evaluated, which is followed by a description of the contribution of the projects funded by the ETC policy to cross-border transport in the cross-border region of Brandenburg-Lubuskie.

#### Cohesion/ETC policy

As described in **chapter 6.3.6**, the two Cohesion Policy documents from the first funding period both support the improvement of cross-border infrastructures as well as the linkage of the TEN-T and secondary transport networks. Yet, the enhancement of cross-border transport services is only promoted by one of the documents. During the second funding period (2014–2020), the distribution changed, so that cross-border infrastructures and the linkage of the TEN-T to secondary networks is only promoted by 50% of the four policies, whereas cross-border transport services are recommended to be enhanced by 75% of the documents. On average, 67% of all the Cohesion Policy documents from both funding periods promote all three categories relevant to cross-border transport. This demonstrates that the Cohesion Policy follows a comprehensive approach towards cross-border transport.

In the analysed **domestic policies**, cross-border infrastructures and the linkage of the TEN-T and secondary networks were promoted more during the first funding period, while they decreased in importance during the second. The support for cross-border services, however, was slightly increased during the second funding period when compared to the first. This change in relation to the three

objectives was also perceived in the EU policies. The relevance of cross-border infrastructures, services and the linkage of the TEN-T and secondary networks varies between the German and Polish policy documents. All three objectives are promoted to a greater extent by the Polish policies.

The **cross-border policies** developed in the cross-border region promote the expansion of cross-border transport infrastructures and services more frequently than the domestic policies. However, the promotion of the linkage of the TEN-T and secondary networks as well as references to the TEN-T corridors is lower than in the Polish policies. Therefore, it appears that the cross-border policies are influenced more by the ETC policy, which focuses on local and regional cross-border transport, and, in contrast to the Polish domestic policies, less by the TEN-T policy. However, this might also be explained by the fact that cross-border policies focus more on internal accessibility and therefore on transport on a smaller scale.

#### <u>Operational and Cooperation Programmes: INTERREG A Brandenburg-Lubuskie + INTERREG B</u> <u>Central Europe + INTERREG B Baltic Sea Region</u>

The INTERREG A programmes are considered to be more targeted towards cross-border transport than the INTERREG B programmes due to the different territorial focuses. INTERREG A is said to foster bottom-up initiatives that are focused more closely on **local needs** (Interview Diehl 2016; Interview Brol 2016) and the **coordination** of transport objectives and investments across borders (Interview Brol 2016). Some **pilot actions** of the transnational INTERREG B programmes might also have an influence (Interview Diehl 2016).

The EU policy requires INTERREG B projects to consist of a **high number of partners** from at least **three different countries**. This challenges the potential for locally focused cross-border transportrelated investments (Interview Wierzbicki and V. Grieķere 2016) in a cross-border region that consists solely of two countries. INTERREG A projects are less restricted in this regard, since they should directly support cross-border regions.

As the **INTERREG cooperation areas** have had to focus their support on a restricted number of fields of their own choosing since 2014, this has partially led to the omission of transport objectives from the cooperation programmes. However, in the INTERREG A programme of Brandenburg-Lubuskie, all three objectives concerning cross-border transport were promoted during the first and second funding periods. Between 2007 and 2013, the INTERREG B programme of Central Europe promoted all three cross-border transport-related objectives, which contrasts with the situation during the current funding period, since no cross-border services are now explicitly promoted. The INTERREG B Baltic Sea Region programme did not promote cross-border services during the first funding period (2007–2013) and it solely promotes the linkage of the TEN-T and secondary networks during the second funding period. Thus, the contribution of the INTERREG B programmes to cross-border transport was reduced during the second funding period.

The **domestic** and **EU policy documents** have also promoted cross-border transport to a lesser extent during the second funding period (2014–2020), with the exception of cross-border services. This objective was actually promoted a little more than before. Thus, the changed domestic and EU policy objectives of the second funding period seem to have influenced the INTERREG programmes' focus during the second funding period to at least some degree. This is because the INTERREG programmes are developed by domestic stakeholders from the countries that are involved in the cooperation area.

The **INTERREG A** programme of Brandenburg-Lubuskie has aimed at enhancing cross-border transport during both funding periods because it was identified as a challenge in the SWOT analyses that were conducted as part of the preparation for the programmes. However, as the funding means are restricted, it is believed that the largest transport infrastructure challenges cannot be solved with the

ETC support alone (Interview Brol 2016). This is acknowledged by Kray (2016). Instead, transport **concepts** and **studies** could be supported (Interview Kray 2016). Although large-scale infrastructures are said to not be supported by the ETC, the INTERREG A cooperation programme directly refers to the TEN-T network and aims at improving the connection of **tertiary transport infrastructures to the TEN-T** core network (Interview Sauer 2016). Thus, there is a direct relation between the two EU-funded programmes.

The **INTERREG B Central Europe** programme focuses on cooperation at a transnational level (Interview Ritt 2016). During the last (2007–2013) and current funding periods (2014-2020), no projects were funded that involved partners from Lubuskie and Brandenburg (Interview Nowicki 2016). Diehl does not recognise a direct influence of the INTERREG B programme from 2007–2013 on cross-border transport, since the projects had a stronger **transnational perspective** (Interview Diehl 2016). According to Ritt (2016), the cooperation programme from the current funding period, however, has a stronger focus on border regions because of the EU requirement to develop a stronger focus on concrete cooperation area needs. Additionally, the SWOT analysis and the monitoring committee proposed the need to focus on **public transport in peripheral border regions**. In this context, more cross-border public transport projects might be supported (Interview Ritt 2016), although the programme does not explicitly promote cross-border transport. However, the programme does support transport development within its territory (Interview Nowicki 2016). Still, it is expected that the projects will develop rather **general outputs** due to both the high number of partners and low budgets (Interview Diehl 2016).

The INTERREG A cooperation programme is said to have fostered the exchange of aims between the two countries based on the cooperation projects (Interview Schiwietz 2016). These contribute to regular cross-border contacts and hence the further development of cooperation (Interview Markus 2016). The INTERREG B programme is said to be very effective in terms of the coordination of transport development and lobbying. Relevant stakeholders from different countries and levels can be brought together within one project (Interview Sauer 2016; Interview Wierzbicki and V. Griekere 2016). Best **practices** are to be developed, which can be applied by other regions as well. However, the actual influence on other regions is said to be difficult to evaluate (Interview Diehl 2016). According to Ritt, the new INTERREG B Central Europe programme (2014–2020) is said to consciously not focus its support on TEN-T development because the transport axes are expected to be expanded very well by the TEN-T policy and the CEF funds (Interview Ritt 2016). Instead, the programme has focused support on transport development in peripheral border regions that are located far away from the TEN-T corridor nodes in order to complement the TEN-T policy. Additionally, the connection of secondary and tertiary infrastructures to the TEN-T at a lower level is to be promoted (Interview Diehl 2016; Interview Ritt 2016). This approach was also followed by the Baltic Sea Region programme. Only a few investments should support TEN-T development. Instead, the connection of secondary and tertiary nodes to the TEN-T axes is to be improved in order to generate benefits related to the TEN-T corridors for regions that are located farther away from these axes (Interview Wierzbicki and V. Griekere 2016).

#### ETC funds and INTERREG A + B projects

Most investments stemming from the INTERREG A programme have focused on **road** and **bicycle transport** thus far. The fostered rail projects did not invest directly in hard infrastructures, but rather developed **concepts** (Interview Klauza 2016; Interview Nowicki 2016). Additionally, several local **cross-border bridges** were established in the past. Besides that, the funds were used for projects in the border area that were of **mutual benefit**, although they not directly involve either cross-border infrastructures or the development of cross-border transport strategies (Interview Neumann 2016). The Euroregion PRO EUROPA VIADRINA considers the AVerON **study**, which was supported by INTERREG A, to be very important for their future cross-border cooperation and acknowledges the

importance of the available funds (Interview Schiwietz 2016). Although the linkage of the TEN-T and secondary networks was promoted by the INTERREG A programmes and the Cohesion Policy documents from both funding periods – with a lower level of support seen from the Cohesion Policy between 2014 and 2020 – this objective was only supported by INTERREG A projects during the second funding period. The relevance of cross-border services within the Cohesion Policy documents was increased during the second funding period, while the INTERREG A programmes promoted it during both funding periods. However, no project has addressed this objective thus far. It is possible that a project will support this objective in the time remaining of the current funding period. Cross-border infrastructures are promoted by the Cohesion Policy documents, the INTERREG A programmes and the funded projects to a similar extent. Such infrastructures are considered to be important and projects have frequently contributed to this objective during both funding periods. According to Schiwietz (2016), however, as there are only limited ETC funds available in parallel to a high number of project applications in the field of transport, it is not feasible to fund highly expensive transport infrastructure projects. Instead, the coordination of transport aims and the definition of common priorities should be the focus of the forthcoming funding periods. The implementation of transport projects should be supported by other funding programmes, while the EU should exclude the financing of transport infrastructures with INTERREG funds during the next funding period (ibid.). In general, the INTERREG A funds are seen as an important incentive for cross-border cooperation. Therefore, the Euroregion Spree-Neisse-Bober hopes that the ETC funds will continue to finance the implementation of transport projects during the forthcoming funding periods (Interview Markus 2016).

The **INTERREG B** transport-related projects from the last funding period did not strongly support the three cross-border transport-related objectives. The highest contribution concerned the linkage of the TEN-T and secondary networks (37%), whereas cross-border infrastructures and services were addressed by only 31% of the projects. This contradicts the apparent promotion of the first two objectives by all INTERREG B programmes and the Cohesion Policy documents. Cross-border services were not promoted by the Baltic Sea Region programme, while they were promoted by only 50% of the Cohesion Policy documents during the first funding period. Thus, the projects' orientation is not conclusively steered by the EU policy and programmes, but instead by the project participants' joint interests. During the second funding period, the contribution of the INTERREG B projects to the linkage of the TEN-T and secondary networks (58%) as well as cross-border services (38%) has grown, whereas **cross-border infrastructures** have been promoted to a lesser extent (23%). The increase in the contribution in relation to cross-border services is striking, since the INTERREG B programmes do not promote this objective at all. Thus, it seems to have been influenced by the increased relevance of this objective within the Cohesion Policy documents. The linkage of the TEN-T and secondary networks was promoted less by the Cohesion Policy documents, but more by both INTERREG B Cooperation Programmes. The latter seem to have led to the stronger development of this objective within this field. Cross-border infrastructures were promoted by only 50% of the Cohesion Policy documents and one INTERREG B programme. However, most projects with this objective were developed in the programme that did not actively promote it. The reduction in the relevance within the EU policy documents might have influenced the lower contribution made by the projects. According to Sauer and Wierzbicki and Griekere, the INTERREG B Baltic Sea Region programme in general neither strives for local transport infrastructure investments nor funds large transport infrastructures (Interview Sauer 2016; Interview Wierzbicki and V. Griekere 2016). Instead, the programme is said to develop joint solutions for common challenges and fund feasibility studies, analyses and future investment proposals. Within the programme, investments are only said to be made in pilot trials. Other investments are expected to be financed by alternative, more targeted funds following the end of the INTERREG project (Interview Wierzbicki and V. Griekere 2016). Still, the transport projects funded in

the Baltic Sea Region – despite having a transnational perspective – are said to enhance cross-border transport through some of their work packages. These are said to focus, for instance, on common crossborder ticketing, the development of technologies for real-time information concerning public transport services, the interoperability of electric fuel station infrastructures, etc. (ibid.). The projects should implement actions that contribute to the objectives of the regional spatial development plans of the involved countries. Furthermore, the projects can be used for the initial development of **cooperation**, and they are then expected to keep the cooperation alive in the long run using alternative funds (Interview Diehl 2016). The Central Europe projects could theoretically develop pilot studies in the cross-border region and thereby contribute to better cross-border transport development (Interview Ritt 2016). Some of the projects from the Baltic Sea Region programme and Central Europe from the last funding period (2007–2013) are said to have influenced the routing of the TEN-T network (Interview Diehl 2016; Interview Wierzbicki and V. Griekere 2016). The INTERREG project SoNorA, for instance, which proposed the routing of the Baltic Adriatic Corridor, led to strong German-Polish **discussions** regarding the final routing and cross-border connection of the TEN-T axes. Thereby, the coordination of both countries was achieved (Interview Ritt 2016). During the last funding period, there was a low demand concerning the transport-related objectives in the Central Europe programme. Therefore, in this funding period (2014–2020), less financial means were dedicated to the transport priority. However, the priority was maintained due to it being considered to be important for all the involved countries (Interview Diehl 2016). According to Nowicki (2016), the fostered INTERREG B transport projects have not contributed much to cross-border transport between Brandenburg and Lubuskie. On this level, not all the transport challenges could be addressed. Instead, bilateral negotiations were conducted independently between Poland and Germany, for example, concerning transport on the common border river (Interview Nowicki 2016).

Generally, INTERREG is considered to foster the **exchange of transport aims and strategies** between relevant stakeholders, which is said to be important. However, it is questionable whether INTERREG can lead to the **long-term coordination** of cross-border transport development between municipalities (Interview Neumann 2016). During the project's lifetime, however, INTERREG funds are said to make the cooperation more **stable** than alternative projects without EU support, since the **financing is secured** (Interview Sauer 2016).

#### *Evaluation*

The Cohesion and ETC policies promote cross-border transport comprehensively, that is, all three objectives are promoted. The relevance of these objectives varies between the two funding periods. After the lower relevance of cross-border services seen during the first funding period, they became more important in the second, while the relevance of the linkage of the TEN-T and secondary networks and cross-border transport infrastructures in general was reduced.

The domestic policies of Germany and Poland seem to have been influenced by the EU policies' change. The objectives of the INTERREG A and B programmes were strongly influenced by national and regional stakeholders and thus by the domestic policy objectives. These needed to be aligned in order to define a commonly agreed programme. Therefore, the negotiations of the domestic stakeholders regarding the programme documents contributed to the exchange and coordination of the domestic policy objectives.

The INTERREG A and B programmes defined their priorities based on the domestic policies, the ETC policy and the conducted SWOT analyses of the cooperation area. Depending on the regional needs, they often decided to focus their support on less promoted cross-border transport-related EU objectives. All the programmes decided to promote transport development as a priority of their cooperation.

The INTERREG projects and funds contributed to the cross-border transport objectives even if they were not promoted by the programmes. Thus, they frequently address further EU objectives. At the same time, not all the promoted objectives of the INTERREG A and B programmes were addressed by the funded projects. Therefore, the formulation of the programmes' objectives does not ensure their implementation by the projects in practice. The projects seem to have been indirectly influenced by the EU policy discourse as well as by the interests of the project partners and regional needs.

The INTERREG A programme has funded several concrete transport infrastructures and some studies, whereas the INTERREG B programme has supported the development of studies, platforms, exchange of experiences, tools, analyses and action plans, which were often tested in pilot studies. Only a few of the case studies directly concerned the cross-border region. In other cases, the experiences could be copied and thus be of benefit despite the fact that no stakeholders from the cross-border region were involved. The TEN-T development is to be complemented by all three programmes via linking secondary and tertiary networks to the main transport nodes. Therefore, a direct influence of the TEN-T policy seems to exist, as expected by Kurnol (Interview Kurnol 2016).

In addition to the concrete contributions to the three objectives, the ETC policy is evaluated to have fostered and initiated regular cross-border contacts as well as facilitated cooperation across borders. Common priorities were defined following intensive negotiation processes. As a result, transport development could be better coordinated because the mutual comprehension in the field of transport was increased. Therefore, the ETC policy can contribute to learning processes and further European integration, as argued by the theory of *constructivism*. Additionally, INTERREG B projects were considered to contribute to the higher external visibility and increased influence of the regional partners on the EU (Interview Sauer 2016; Interview Wierzbicki and V. Griekere 2016).

Further, the **financial support** of the ETC policy is said to be very relevant to cooperation in the field of cross-border transport, although no large-scale transport investments could be funded. Still, some infrastructure improvements have been implemented.

The projects funded by INTERREG A and B have contributed to the three cross-border transport objectives as they were promoted by the ETC policy. INTERREG A projects have mainly supported cross-border infrastructures, whereas cross-border services and the linkage of the TEN-T and secondary networks were promoted by some INTERREG B projects. Some projects from the last and current funding periods related to the TEN-T corridors are said to have actually influenced the TEN-T policy. Thus, the ETC policy is considered to have contributed to cross-border transport and the implementation of the TEN-T policy.

## TEN-T influence

The influence of the TEN-T policy is evaluated on three levels. First, the influence of the TEN-T policy documents on cross-border transport and the domestic policy documents is described. Second, the influence of the priority projects and TEN-T corridors is evaluated, which is followed by a description of the contribution of the projects that were funded by the TEN-T policy to cross-border transport development in the cross-border region of Brandenburg-Lubuskie.

## TEN-T policy

As stated in **chapter 6.3.6**, the TEN-T policy has strongly promoted the improvement of cross-border infrastructures during both funding periods (100%). The linkage of the TEN-T and secondary networks was promoted to a much lesser extent (by 33% of the policies in 2007–2013 and 17% in 2014–2020). Cross-border services have been promoted by 33% of the TEN-T policy documents during both funding periods. Thus, the TEN-T policy focuses on **cross-border transport infrastructures**.

In Germany and Poland, the **TEN-T corridor development is steered at a national level**. Therefore, the regional and lower administrative levels are less involved in the planning. As responsibility for the TEN-T is attributed to the national levels, the TEN-T policy aims are expected to be mainly implemented and promoted by those national levels, and less so by the lower administrative levels. Cross-border regions formulated the need to obtain better access to the TEN-T in order to not only be crossed and suffer from the environmental burden, but to benefit from the network as well. Thus, the TEN-T needed to be linked to secondary and tertiary networks. However, this objective has not been strongly promoted by the TEN-T policy.

When looking at the **domestic policies**, the enhancement of **cross-border infrastructures** is promoted by 67% of the Polish national policies, but by only 42% of the German national policies. Compared to the strong promotion of this objective within the TEN-T policy, both countries' national policy documents do not consider it particularly important, and they seem to be less influenced by the TEN-T policy's promotion of this objective. The promotion of this objective is higher at a regional level, especially in Poland. Indeed, 100% of the policies promote this objective. The linkage of the TEN-T and secondary networks is promoted to a similar albeit slightly lower degree than cross-border infrastructures (61% in Poland and 43% in Germany). It is promoted the most by the regional level policy documents. Additionally, in the domestic policies, the relevance of this objective was reduced during the second funding period. Still, the contribution to this objective is much higher than that seen in the TEN-T policy. Cross-border services are promoted in the domestic policies to a similar degree as in the TEN-T policy. The contribution in the Polish and German policy documents is below 40%. It is most relevant at the lowest administrative level. Overall, the influence of the TEN-T policy's promotion of the three cross-border transport-related objectives on the domestic policies varies. Generally, of the three objectives, cross-border infrastructures are promoted the most by both the TEN-T and domestic policies.

Following the introduction of the two-layered approach of a core and comprehensive network for the second funding period (2014–2020), the European Commission revised the TEN-T policy. It developed and planned the routing of the core network in a first step without member state involvement based on scientific analyses. Prior to defining the detailed corridors, the member states were involved and they negotiated regarding the exact routing. Still, the European Commission made the final decision. This process militates the strong influence of the European Commission as a supranational stakeholder in terms of the prioritisation of investments. It did not, however, plan the network from scratch, since most of the transport axes already existed. Thus, it would be overstating matters to talk about a redistribution of planning competences. Based on the EU's initiative and involvement, the transport development priorities were coordinated between the member states. The implementation is partially financially facilitated by the European Commission, although it needs to be secured by the member states. Still, as argued by the theory of *neo-functionalism*, the influence of the supranational level can be strongly perceived in this practice when comparing it to the former uncoordinated transport planning of the individual countries prior to establishment of the EU. However, despite the EU initiative to develop a European transport network, the member states' national transport ministries are said to continue to strongly focus on their national transport systems without taking into account those of neighbouring countries (Interview Wierzbicki and V. Griekere 2016).

In general, the member states' commitment to the TEN-T corridor implementation is considered to have been very low. The idea of the **TEN-T corridors** themselves is considered to be a good one. Indeed, domestic policies have already created strong relations to them. Still, the member states are said to not cooperate sufficiently across borders (Interview Schiwietz 2016). Neumann (2016) believes that the core **network corridor coordinators** should coordinate the development of the transport corridors between the involved member states across borders to a greater extent. Thus far, Germany is considered to have

only benefitted a little from EU funds in the field of transport infrastructures (Interview Neumann 2016). Schiwietz considers that the corridor coordinators should focus the financial support on municipalities with little financial means, so that the added value can be increased (Interview Schiwietz 2016). The TEN-T corridors are said to have an influence on the **regional development** of cross-border regions if the latter are able to establish contacts with the corridor coordinators and organise themselves into **corridor forums** as well as if they align their **regional planning policies** to the TEN-T aims (Interview Wierzbicki and V. Griekere 2016).

The extent to which the TEN-T policy has influenced the TEN-T corridors in the vicinity of the crossborder region of Brandenburg-Lubuskie as well as how the corridors are integrated into the domestic and cross-border policy documents will be discussed in the next section based on the findings of the policy document analysis.

#### TEN-T North Sea Baltic Corridor

No priority projects were conducted on the territory of the cross-border region of Brandenburg-Lubuskie. Therefore, the analysis focused on the TEN-T corridors. The TEN-T corridor work plan for the North Sea Baltic Corridor promotes all cross-border transport-related objectives and all other EU objectives, except for one. It is thus very broad and comprises a **comprehensive transport** development. The TEN-T corridor work plans for the corridors that cross the Baltic Sea Region are said to have influenced the INTERREG B programme, which aims at supporting their implementation and seeks to increase the interoperability of the TEN-T corridors across borders. This is considered to contribute to cross-border transport (ibid.).

The TEN-T corridors and their coordinators are considered to have an important - albeit not binding influence on the motivation of member states to expand cross-border transport. The regions are said to share an interest in the expansion of cross-border transport with the European Commission – more so than their national administrations. In this context, the EU is said to support the implementation of the interests of the regions (Interview Sauer 2016). Furthermore, the TEN-T corridors are considered to contribute to the **better accessibility** of the larger centres of the cross-border region. This is thought to be of high relevance to economic exchange (Interview Schiwietz 2016). Additionally, Ritt (2016) considers the influence of the TEN-T corridors to be high for the nodal hubs that are directly connected to the TEN-T axes and the cross-border sections of the corridors. These entities are expected to be highly motivated to improve cross-border transport because they can benefit from EU support. However, those areas that are not situated in the direct vicinity of the corridor might not benefit much from it. In general, the expansion and implementation of the corridor axes are expected to take a long time, which means that it will be some time before the direct influences will be noticeable (Interview Ritt 2016). According to the European Commission, the TEN-T corridors form the foundations for the easier crossing of the national borders. The enhancement of transport infrastructures could result in higher cross-border traffic flows, which burden the cross-border region but also increases its accessibility (Interview Kissler 2016). Additionally, the TEN-T corridors are expected to contribute to new **opportunities** for urban and rural areas once connected to them (Interview Brol 2016). Klauza (2016) considers the TEN-T corridors to be important for long distance passenger and freight transport. The North Sea Baltic corridor is said to support rail development (Interview Klauza 2016) as well as motorway transport between Germany and Poland. Furthermore, it links Poland to Western Europe. Therefore, the definition of the corridor and the actions integrated into the associated work plan are expected to have an important influence of transport development. However, in order to benefit from it, the Lubuskie region must negotiate about the integration of two additional transport nodes that allow the region to access the long distance infrastructures (Interview Nowicki 2016). Further, the TEN-T corridors are considered to represent an opportunity to make the member states **cooperate** with each other and further develop the

transport **infrastructures at the national borders**. Therefore, cross-border regions are considered to benefit from the investments (Interview Schiwietz 2016). The Euroregion Spree-Neisse-Bober, however, is said to not be influenced much by the North Sea Baltic TEN-T corridor, since it is not located in the vicinity of the region (Interview Markus 2016).

When analysing the influence of the TEN-T corridor on the **domestic policies**, it was found that 59% of the domestic policies refer to TEN-T corridors, while cross-border transport itself is mentioned by 73% of the domestic documents and thus is more popular within the policy discourse. Some 60% of the **cross-border policies**, as developed in cooperation between member states, mention the TEN-T corridors, which is similar to the domestic policies. The objective of linking the TEN-T to secondary networks is promoted by 53% of the cross-border policies and 51% of the domestic policies. The improvement of cross-border transport infrastructures is, however, promoted by 93% of the cross-border policies. Therefore, it is promoted to a much higher degree than that seen in the domestic policies (61%). The comparison shows that the cross-border policies promote the enhancement of regional and subregional infrastructures more than the linkage of the TEN-T. Still, they promote the linkage of the TEN-T and secondary networks to a similar or even slightly higher degree than the domestic policies.

#### TEN-T funds and projects

The TEN-T corridors are said to concentrate the cross-border transport investments in the corridor axes due to the financial support of the EU. Additionally, the TEN-T projects are considered to mainly contribute to **transit transport** as well as **logistical feeder services**. The TEN-T funds can support investments in **large-scale transport infrastructures**, thereby facilitating cross-border transport (Interview Kray 2016).

During the first funding period (2007–2013), none of the TEN-T projects aimed at enhancing crossborder transport infrastructures. Some 25% of them were related to investments that improved crossborder services. This deviates from the strong promotion of cross-border infrastructures seen in the TEN-T policy. During the second funding period, a higher percentage of projects (67%) supported the expansion of cross-border infrastructures and services. Most projects concerned high speed rail transport or motorways. Projects from neither funding period contributed to the linkage of the TEN-T and secondary networks.

The CEF support is said to have become more flexible, since it no longer solely support investments in transport **infrastructures**, as was the case during the last funding period (2007–2013), but also **studies**, **urban nodes**, **innovations**, etc. In this context, the TEN-T and its funds are said to have become more interesting for the regional level. Previously, the regional level could not apply for funds, since they were only available for the national level, ports and airports (Interview Sauer 2016).

Thus far, only a low number of TEN-T projects have been funded in the vicinity of the cross-border region. Strikingly, no purely Polish projects were funded on the territory of Lubuskie. This does not mean that Lubuskie is supported to a lesser extent than other Polish regions, since on the national scale, a lower number of Polish TEN-T projects have been funded so far. The seven funded TEN-T projects consisted of two German and five EU projects. Most projects focused on **large-scale infrastructures** or **service connections**. However, infrastructures were only developed in two cases, while the others conducted studies or developed **travel information services**. The latter are considered to be of added value for the transport flows between Brandenburg and Lubuskie, although no regional or local infrastructures and services are concerned. Still, the exchange involved in **EU projects** is expected to bring stakeholders from the two (and other) countries together as well as help to **coordinate** transport across borders to a certain degree.

#### Evaluation: TEN-T Contribution

The promotion of the TEN-T policy objectives has been amended during the different steps of the policies' implementation process. The European Commission has become a relevant coordinator of the European transport system due to defining investment priorities in consultation with the member states. However, the national levels are said to have contributed only very little to the implementation of the TEN-T corridors thus far. They are said to have been very focused on their national territories and less so on cross-border sections. Still, some domestic and cross-border policies refer to the EU policy's objectives and the TEN-T network. The regional administrative levels promote the TEN-T development slightly more and hope to benefit from it.

Only seven cross-border-related projects have been funded in the vicinity of the cross-border region during the last and current funding periods. The EU-funded TEN-T projects support both cross-border infrastructures and services. The main focus lies on large-scale fast transport connections, and the projects are thus especially relevant to the region's **external accessibility**. Parts of the cross-border region that are located far from the corridor are said to not benefit from it when they are not efficiently connected via secondary networks. Therefore, Neumann considers the influence of the TEN-T corridors on cross-border transport within the cross-border region to be rather limited (Interview Neumann 2016). The linkage of the TEN-T and secondary networks needs to be fostered by other policies, since this is not facilitated by the TEN-T at all. Still, the **EU studies** funded by the TEN-T and CEF funds might contribute to cross-border transport coordination to some extent at least because of the interaction of stakeholders from different countries. This is acknowledged by some of the interviewed stakeholders.

## EU influence

To expand and develop cross-border transport within the EU, a **concrete demand** on the ground such as labour, touristic and freight interdependencies and flows is said to be needed. In the cross-border region between the subregional planning region of *Lausitz-Spreewald* and the bordering Polish territory, for instance, large interdependencies across the border are missing because of the low population density on the Polish side. Therefore, there is no demand to expand cross-border transport and coordinate transport development. In other parts of the cross-border region, however, there are frequent transport flows.

The extent to which the EU policy has influenced cross-border transport in the cross-border region of Brandenburg-Lubuskie was analysed in two steps. First, the <u>formal policy implementation</u> was analysed in the domestic and cross-border policy documents.

The formal implementation of the EU policies' objectives is said to be challenged by the frequently **low level of concreteness** of the EU policies. They would often fail to define how the objectives should be achieved. Therefore, the implementation might be hampered (Interview Kramer 2016) or differ between member states (Interview Sauer 2016; Interview Kray 2016; Interview Neumann 2016).

The comparison of the **transport planning systems** of Poland and Germany shows that there are several differences stemming from the German federal and Polish central state systems. The regional and subregional Polish levels have only a few transport **competences** in terms of transport infrastructures when compared to the German system. Transport services are organised in a similar, but not in the same manner. The transport planning instruments, that is, the policies, differ and show a different orientation towards the EU policy discourse and the related objectives. This is considered to be caused by the **different initial situations** in both countries – in terms of transport planning systems, but also the status quo of the transport infrastructures and services. These differences combined with the reported **path dependent domestic institutions** and **planning cultures** can lead to challenges in relation to the coordination of cross-border transport.

According to the interviewed stakeholders, the **general transport objectives** of both countries do not differ significantly, although small differences exist. The analysis of the policy documents showed, however, that the domestic policies of Poland, as a newer EU member state, promote the EU policy objectives much more so than the German policies. The policies developed at the regional administrative levels of both countries are mostly similar to the EU transport-related objectives. The **TEN-T** and **cross-border transport** were both mainly mentioned by the domestic spatial planning policy documents and the documents developed in cooperation with the EU. These were more open to cross-border cooperation than the pure transport policies. In terms of the definition of detailed objectives, cross-border infrastructures and cross-border services were promoted most in the spatial planning and transport policy documents, while the linkage of the TEN-T and secondary networks was promoted most in the transport and EU-related documents. Thus, the **domestic transport policies** are relevant and support the objectives associated with cross-border transport in a constant manner.

Several **cross-border transport policies** were developed at the German-Polish border. Some concerned the whole German-Polish borderland, while others concerned an even a larger space that involved more member states, for instance, the Baltic Sea **macro-region**. Additionally, cross-border local policies that concern parts of the cross-border region of Brandenburg-Lubuskie were developed by the existing transnational institutions. Thus, the non-administrative cross-border spaces have proved to be **policy entrepreneurs**. Besides the INTERREG A programmes, no further policy documents have been established for the cross-border region territory itself. This shows that the cross-border region – as demarcated by the INTERREG programme – is **not strongly institutionalised** and does not have other functions than the EU programme administration. Cross-border transport was strongly promoted by the analysed cross-border policies – more so than in the domestic policies. They focused on regional and local infrastructures and services and only to a lesser degree on the linkage of the TEN-T and secondary networks. The cross-border policies more frequently defined **concrete projects** than the German policies, but less frequently than the Polish ones.

In terms of the different **domestic administrative levels**, the linkage of the TEN-T and secondary networks was supported most at the regional and Polish national levels. The improvement of cross-border infrastructures and services was promoted most by the lowest domestic administrative levels analysed – potentially due to their higher level of concern. Additionally, concrete projects were defined most frequently at these levels and in spatial planning policies. However, their implementation is not secured because of the limited competences of these levels. Instead, the policy documents seem to have been used to **lobby and convince the higher administrative levels** of their relevance.

Overall, the domestic policies have been adapted to some of the **changed EU policy focuses** of the second funding period. A certain influence of the EU policies seems to exist, since the changed EU focuses have not led to the higher deviation of the domestic policies. However, this is not true in all cases.

Due to the high similarity of the Polish policy objectives to the EU policy discourse, a number of adaptation processes seem to have taken place in relation to the Polish policies. The German lower level of support for these objectives might hamper the coordination of the German policy aims with the Polish aims. As an older member state of the EU, Germany has had more time to adapt than Poland. Therefore, the low coordination of the cross-border transport-related objectives between the two countries is not considered to be due to the relatively short cooperation tradition in the cross-border region, but rather to the **German path dependence** and/or **lower perceived need** to promote these objectives.

After the analysis of the formal policy implementation, in a second step, the <u>practical implementation</u> was evaluated. According to the interviewed German stakeholders, the practical implementation of the

Polish policies would differ from the German practice and it would no longer be oriented to the same extent towards the EU objectives.

The **implementation of cross-border policies** is challenged by the **missing competences** of the transnational institutions. Additionally, domestic policy documents developed at a low administrative level without transport competence cannot easily be implemented. The necessary involvement of the **higher domestic administrative levels** and the dependence on their **financial support** prolongs the implementation process and hinders the flexible and efficient removal of cross-border transport challenges.

The EU offers **financial support** in combination with the **TEN-T** and **ETC** policies as an incentive for EU policy implementation. All the **programmes** that concern the territory of the cross-border region defined transport as one of their priorities. The INTERREG A programmes from the two funding periods are very focused on a restricted number of EU transport objectives. This is also true for the INTERREG B programmes, with the exception of the Central European programme from the first funding period. The TEN-T **corridor work plan**, however, is very broad and mentions all the EU objectives. Yet, the level of detail of the programmes did not have any influences on the projects' focus.

The **projects** dealt with several EU transport objectives, thereby facilitating the implementation of the EU policies' objectives. It turned out that the projects did not especially aim at contributing with the objectives that had the highest relevance to the EU policies. The INTERREG B programmes are multifaceted and cover all transport-related objectives, whereas the projects of the TEN-T and INTERREG A programme support only specific objectives. The projects from the different programmes complemented each other in terms of their contribution to the EU cross-border transport-related objectives. The linkage of the TEN-T and secondary networks is contributed to most by the INTERREG B projects, cross-border (freight and information) services by the TEN-T projects and cross-border infrastructures by INTERREG A. However, the majority of the projects from each programme focus on something other than the cross-border transport-related objectives. Due to their relation to the TEN-T, the INTERREG B projects aim at complementing the contribution of the core network corridors and increasing the benefit for the crossed territories. Therefore, the projects from the TEN-T and INTERREG B programmes overlap with each other territorially. All the projects that concerned crossborder transport and had a certain relation to the cross-border region are considered to have contributed to cross-border transport **coordination** and the improvement of the cross-border region in various ways. Besides the concrete infrastructural and service-related investments, the financial incentives that activate and group stakeholders from different countries are considered to be of high relevance to coordination across borders. As the EU funds related to the three programmes were limited, the projects could only contribute to the implementation of the EU objectives to a certain degree. In addition, further efforts need to be made to combat the remaining challenges of cross-border transport.

Besides the three EU funding programmes, the cross-border region of Brandenburg-Lubuskie is situated in the sphere of influence of a European **macro-region**. The macro-region's contribution to transport development in the cross-border region is discussed briefly in the following. The macro-regional strategy aims at **coordinating** the TEN-T corridors' infrastructural objectives and implementation – which involves national competences – and the objectives of the territorial cooperation programmes – which are focused on the regional and local levels – together with civil society. The goal is to jointly achieve **higher accessibility** and **sustainable transport**. Furthermore, the new **infrastructures** that will be established should be made use of as efficiently as possible (Interview Erlandson 2016). Therefore, the coordinator of the EUSBSR transport policy area is said to be in frequent contact with all the transport ministries of the involved member states in order to coordinate their interests concerning crossborder transport and jointly develop the measures of the new **action plan** (ibid.). The concrete influence

of the macro-regional strategy is, however, difficult to measure (ibid.). The macro-regions were developed based on the principle that no additional structures and no additional funds were required. The strategy should **coordinate the available funds** and the **cooperation** of the involved member states. However, as no funds can be offered, the influence of the strategy might be limited (Interview Wierzbicki and V. Griekere 2016). Still, the INTERREG B Baltic Sea Region programme financially supports the implementation of the developed macro-regional flagship projects and further macroregional aims. The objectives of the macro-regional strategy and INTERREG B programme are said to be very similar (ibid.). The so-called 'Macroregional Transport Action Plan' was developed by the INTERREG B 'TransBaltic' project in 2012. It defines a vision and strategy combined with proposed actions for transport development in the Baltic Sea Region (ibid.). In practice, the Euroregion Spree-Neisse-Bober and the Euroregion PRO EUROPA VIADRINA do not recognise a strong influence of the macro-regional strategy on their territory and the development of cross-border transport. The objectives of the strategy are not even known (Interview Markus 2016; Interview Schiwietz 2016). Additionally, the German subregional spatial planning levels are said to not be involved in this macroregional strategy (Interview Kramer 2016). Neumann is also sceptical regarding the influence of largescale cooperation strategies such as the EUSBSR on concrete cross-border transport projects (Interview Neumann 2016). Thus, the macro-regional contribution seems to only be perceivable by the higher administrative levels' stakeholders. In combination with the INTERREG B financial incentives, the influence might be more perceivable. Generally, the coordination of the different countries' transport stakeholders is evaluated to be very positive. However, the strategy and action plans are **not very** concrete because they concern a large territory. Therefore, the steering effect for the cross-border region is considered to be rather low.

Independent of EU support, some cross-border transport initiatives have been developed by the existing cross-border institutions. The German-Polish Spatial Planning Committee is considered to be an important platform for information and support (Interview Klauza 2016). Neumann, however, considers its direct influence on cross-border transport to be rather low because it is said to focus on the broad and abstract coordination of spatial development on both sides of the Oder river and **not** on the definition of concrete cross-border projects (Interview Neumann 2016). This is acknowledged by Schiwietz (2016). The committee is said to not be involved in concrete cross-border transport projects such as cross-border bridges, although political support for these projects would be desirable one day (Interview Schiwietz 2016). Neumann evaluates the work of the 'transport' roundtable to be more targeted towards cross-border transport development (Interview Neumann 2016). The non-EU-funded initiatives also refer to some EU objectives. However, they are less visible and less promoted than the EU-funded projects. Further projects might be challenged because of missing funds. Besides, challenges were reported in relation to frequent personal changes and responsibilities in the member states. In one case, an EU-funded project was prolonged at the transnational level after the end of funding. Transnational platforms and studies were developed that are said to have coordinated transport investments on both sides of the borders. Even the TEN-T development is to be coordinated. Further, many transport infrastructure projects have been conducted individually in the two countries, although they might be of added value for cross-border transport flows within the cross-border region. More concrete cross-border local initiatives exist in the case of cross-border services. Still, these examples of cooperation are said to strongly rely on different domestic structures and the associated financial support. The existing cooperation structures of the borderland have aimed at coordinating transport development across borders to a certain degree. Due to the EU-funded programmes, the role of the non-administrative bodies as policy entrepreneurs and policy implementers in the field of transport is facilitated and strengthened.

In general, the coordination of transport across borders is considered to not be easy. The **political situation** is said to possibly influence and challenge both cross-border cooperation and cross-border transport. The growing popularity of nationalistic parties in several European member states combined with the reintroduced border controls between some member states due to the refugee crisis are said to negatively influence transnational cooperation. In this context, cooperation within the INTERREG programmes and other EU platforms is considered to be even more relevant to keeping the cooperation going and **showing the added value**, so that it becomes clear that European cooperation is very important and worthy of protection (Interview Wierzbicki and V. Grieķere 2016; Interview Ritt 2016).

The next section compares the influence of the EU policy on both case studies in order to determine whether the findings can be universalised.

# 6.5 Comparison of the two case studies - influence of EU policies on cross-border transport

As described in **chapter 1.3**, this research project utilises a mixture of the '**variation-finding comparisons**' strategy and the '**universalising comparisons**' strategy. The phenomenon of EU policy influence on cross-border transport is to be compared in two different cross-border regions. It is expected and to be proved that the different initial cross-border situations of the two cases lead to distinct outcomes. Thus, the starting point for the comparison is the presentation of the different initial situations.

This chapter aims to concisely highlight the differences and similarities in the initial situations as well as the analysed EU policy influences on cross-border transport in both case studies. More detail regarding the two cases can be found in **chapter 6.3** and **6.4**.

#### 6.5.1 Initial situations of the two cross-border region case studies

As the aim is to determine whether the initial situation of a cross-border region has an influence on the EU policy implementation, the two analysed cases differ. In this section, the characteristics of the two cross-border regions as well as the state hierarchies and competences in the field of transport of the involved member states are compared.

# Characteristics of the cross-border regions and status quo of the cross-border transport system

As discussed in **chapter 6.1**, the two analysed cross-border regions differ, as does the status quo of cross-border transport within the two regions.

#### Characteristics of cooperation

Cross-border cooperation in parts of the Greater Region has a relatively longer **history**. However, the cooperation of all countries – including Belgium – started at a similar time to the cooperation between the Polish and German parts of the cross-border region of Brandenburg-Lubuskie. In both cases, the cooperation initially began with **bottom-up initiatives**. After some time, the territory was artificially enlarged. In the Greater Region, however, the territory of cooperation is politically backed and several institutions have been established for the enlarged territory, whereas the Brandenburg-Lubuskie cross-border region seems to exist solely for the administration of the INTERREG A programme. Cross-border cooperation in the Polish-German borderland has a long tradition as well with several associated institutions; however, it always concerns a larger territory than the cross-border region analysed in this study. Therefore, the coordination across borders might be less focused and less concrete in the German-Polish cross-border region. The higher focus in the Greater Region might be an advantage. Yet, as the Greater Region consists of **more member states** with different initial situations as well as a **large territory**, the cross-border regions might face similar challenges.

The INTERREG cooperation space tradition between Brandenburg and Lubuskie is older than that in the Greater Region. However, smaller bi- and trilateral seperately EU funded cross-border regions existed in the area of what today is the Greater Region's territory.

Both cross-border regions are situated within INTERREG B **transnational cooperation spaces**. The territory of Brandenburg-Lubuskie is actually overlapped by two transnational spaces and one macro-region. Further, both regions are crossed by **TEN-T core network corridors**.

	Greater Region	Brandenburg-Lubuskie	
Historic roots 1971 (DE/FR/LUX), 1995 (+BE)		1993 (Euroregions)	
INTERREG Greater Region: 2007		Brandenburg-Lubuskie: 2000/04	
Institutionalisation	High	Limited	
Establishment	Originally bottom-up	Originally bottom-up	
	4 member states, five regions	2 member states, two regions	
Territory	65,400 km²	20,341 km <sup>2</sup>	
	176 inhabitants per km <sup>2</sup>	85 inhabitants per km <sup>2</sup>	

Table 75.	<b>Characteristics</b>	of the	h two	cross-border regions	

Source: Author, Kaiserslautern, 2017.

The cooperation space of the Greater Region is approximately three times larger than that of the German-Polish cross-border region. It also has a higher population density. Yet, the population of both cross-border regions is shrinking. In the Greater Region, there are stronger regional differences than in the German-Polish cross-border region. The population in Luxembourg and Wallonia is still growing.

The Greater Region consists of more member states and administrative regions (see **Table 75**). Therefore, the cooperation in the cross-border region is more complex. Indeed, four different domestic administrative and legal systems are involved (see the following section).

Both cross-border regions are organised in a polycentric fashion, that is, several centres exist. Still, in the Greater Region, the dominant attraction of the city of Luxembourg and its job market can be perceived, which leads to strong commuter flows into the city. The percentage of employees working in a country other than their country of residence is higher in the Greater Region than in the German-Polish cross-border region. Additionally, the Greater Region shows a high number of atypical commuters due to the high housing prices in Luxembourg. Such a dominant centre in terms of the labour force cannot be perceived in the German-Polish cross-border region. Moreover, the Greater Region aims to enhance its internal organisation as a polycentric metropolitan cross-border region. Such initiatives do not exist in the Brandenburg-Lubuskie cross-border region.

Twin cities or villages, which are situated in close proximity to the border, exist in both case studies. Additionally, there are two city networks that were established in the Greater Region and cross-border local cooperation in both case studies.

	Greater Region		Brandenburg-Lubuskie	
	Average: 32,317 €		Average: 21,630 €	
GDP/capita	LOR: 24,929 € WAL: 26,347 €	RLP: 32,968 € SL: 35,498 € LUX: 90,977 €	LUB: 9,443 €	BB: 26,626 €
Available household income	WAL:17,039 € LOR: 17,875 € SL: 19,591 €	RLP: 21,397 € LUX: 32,073 €	LUB: 4,300 €	BB: 22,200 €

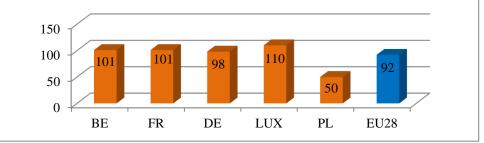
Table 76: Economic characteristics of the two cross-border regions

Source: Author, Kaiserslautern, 2017.

As seen in **Table 76**, the **GDP per capita** in the Greater Region is higher than that in Brandenburg-Lubuskie. The lowest regional GDP/capita produced in the Greater Region is still higher than the highest regional GDP/capita produced in the German-Polish cross-border region. Within the cross-border

regions, large differences also exist. This applies to the **available household income** per capita as well (see **Table 76**). Surprisingly, the available household income in Brandenburg is higher than in the residual regions of the Greater Region, except for Luxembourg.





Source: Author, Kaiserslautern, 2017, based on: OECD 2016.

Looking at the national price level indices depicted in **Figure 125**, it can be seen that they are relatively similar in the Greater Region, except for Luxembourg, which has a slightly higher level. The Polish level, however, is half that of the other member states. Thus, there exists a strong internal difference within the German-Polish cross-border region, which relativises the difference in the household incomes of the other member states when compared to Poland, since the living costs are much lower in Poland.

Additionally, in both cross-border regions, the **unemployment rate** differs across the internal borders.

Due to the described disparities between the border regions, it is attractive to cross the border in order to benefit from the respective advantages of the neighbouring regions. This was facilitated by the abolition of the border controls. The internal border controls within the Greater Region, which involve only founding member states of the EU, were abolished in 1995, whereas the Brandenburg-Lubuskie cross-border region involves a new member state that joined the EU in 2004. Here, the border controls were abolished in 2007, that is, much later than in the Greater Region. The later EU accession of Poland also means that the country had less EU influence in the past when compared to Germany and the other three countries. This might have an influence on the Europeanisation processes in Poland as well as the EU policy implementation.

#### Cross-border transport system

According to the interviewed stakeholders, the status quo of the cross-border transport system of the Greater Region is better than that of the transport system in Brandenburg-Lubuskie.

The **natural border** formed by the border rivers between Poland and Germany minimises the options for crossing the border. Bridges or ferries are needed. In the Greater Region, there are also some border rivers (e.g. the Mosel between Luxembourg and Rhineland-Palatinate). However, large parts of the region are not separated by a natural border.

In both case studies, one-sided **commuter** flows exist that lead to concentrated transport flows and the high occupancy rate of infrastructures and services during peak hours. Between Brandenburg and Lubuskie, more commuters travel to Germany, while in the Greater Region, the commuter flows are concentrated towards Luxembourg from all neighbouring regions. Two-thirds of employed persons live outside the country (Interview Besch and T. Juttel 2016). Additionally, more citizens commute from Lorraine to the Saarland and Belgium.

In Brandenburg-Lubuskie, larger transport differences were reported between the two parts of the crossborder region. In both cases, the main **transport infrastructure** seems to be in place, although improvements could be made, especially in terms of the rail infrastructure. In the Greater Region, strong cross-border transport flows existed prior to the Schengen Agreement, as did the transport infrastructures. In the German-Polish border region, infrastructures had to be (re-)established following

a long separation due to the **Iron Curtain**, although such efforts were hampered prior to entry into Schengen, which led to strong backlogs at the borders.

Cross-border **transport services** need to be enhanced on both cases. However, in the German-Polish cross-border region, there is a much lower demand and offer than in the Greater Region, which is also because the offer is not attractive. Compared to the diverse cross-border bus offer for commuters in the Greater Region in the vicinity of Luxembourg, there are no public cross-border bus connections between Brandenburg and Lubuskie, except of one bus that connects a twin city. In the outer, rural parts of the Greater Region and Brandenburg-Lubuskie, the public transport offer is said to be limited. Trains are offered in both cross-border regions – with a lower frequency and demand in Brandenburg-Lubuskie. In both case studies, special cross-border tickets for regional transport services have been created on some borders. In the Greater Region, the coordination should be further improved. Challenges related to technical rail systems between the different parts of the cross-border regions exist in both cross-border regions.

The high number of cross-border commuters into Luxembourg and the related need to react to strong congestion leads to another dimension of **pressure** in the Greater Region that does not exist in Brandenburg-Lubuskie. This seems to result in a higher need for cooperation and the coordination of transport across borders

The discourse concerning cross-border transport in the Greater Region is focused on passenger transport and hence it addresses **freight transport** flows to a lesser extent, although such flows seem to influence the transport system of the cross-border region of Brandenburg-Lubuskie to a high degree. In the Greater Region, freight transport is mainly referred to in the context of the congested passenger transport infrastructure. It should be transferred to other transport modes, for example, waterways. Additionally, freight transport is said to avoid crossing the region due to the low travel speeds.

In general, it is more complex to evaluate and coordinate cross-border transport in the Greater Region because of the greater number of borders as well as the diverse needs at the different borders. The comparison shows that the transport systems of both case studies vary. Both are challenged, but these challenges result from different reasons and demands, which might lead to the different implementation and influence of the EU policy objectives.

# State hierarchies and transport planning competences of the countries involved in the cross-border regions

In both case studies, countries with different state hierarchies are represented. There are centrally organised countries such as France and Poland as well as federal, decentralised systems such as Germany and Belgium. Luxembourg is difficult to categorise, since no administrative level exists between the national and local levels. The different state hierarchies have a strong influence on the division of transport responsibilities between the different administrative levels in terms of services and infrastructures. This challenges the coordination across borders in both case studies.

Further, similarities and differences in the allocation of competences at the different administrative levels exist in both cases. In both case studies, these were reported to challenge the coordination across borders. Cross-border cooperation is more complex in the Greater Region because of the higher number of domestic systems involved. In both cross-border regions, **transnational institutions** have been established that try to coordinate transport and spatial development across borders. In Brandenburg-Lubuskie, however, the institutions focus on a larger space – the whole German-Polish borderland.

The cooperation across borders in the field of cross-border transport in both cross-border regions is challenged by the same factors. **Different needs** in the different domestic parts of both cross-border regions – whether due to the different status quo of the transport system in Brandenburg-Lubuskie or

due to the large territory with different borders in the case of the Greater Region – lead to different domestic priorities. These require lengthy negotiation processes in order to define common objectives. Moreover, stakeholders from both cross-border regions bemoan the **high dominance** or **dependence** of the **national administrative levels**, which pursue different objectives. Additionally, the coordination of domestic transport planning would often take place very late or else not happen at all. Furthermore, the **missing competences** of the lower administrative levels interested in cross-border transport and transnational institutions lead to the relatively low bindingness of the produced policy objectives.

The comparison shows that there are no large differences in terms of the challenges of the coordination of cross-border transport between the two cases, although the Greater Region is composed of old EU member states that are potentially more experienced in relation to mutual cooperation. However, the coordination of four countries in one cross-border region represents a significant challenge. Further, the cooperation in the current territorial scope has existed for a similar length of time to the cooperation in Brandenburg-Lubuskie. Still, the implementation of EU policy objectives might have been influenced by the different cooperation characteristics and history. This will be analysed in the following.

## 6.5.2 EU policy influence on cross-border transport development

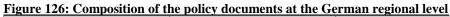
Based on the comparison of the two case studies, it is to be generalised how the (implemented) EU policies influence cross-border transport development as well as evaluated whether different initial situations lead to a different EU policy influence on cross-border transport. First, the formal policy is evaluated in the domestic and soft space policies, which is followed by an evaluation of the practical implementation in projects.

#### Formal policy implementation in domestic policies

Germany is involved in both cross-border regions. Thus, it can be considered as a constant influence factor. However, only the German national policies are the same. Therefore, a brief comparison of the three regional levels involved in the two case studies should show whether the regional levels' policy objectives are similar. As can be seen in **Figure 126**, the composition of the policy document types that relate to transport development differs in the three regions. Brandenburg developed a high number of transport policy documents, but no environmental policies that address transport development. In the Saarland, several development policies relate to transport development, whereas in Rhineland-Palatinate, the distribution of the five policy types is balanced. This might have an influence on the promotion of EU transport objectives.

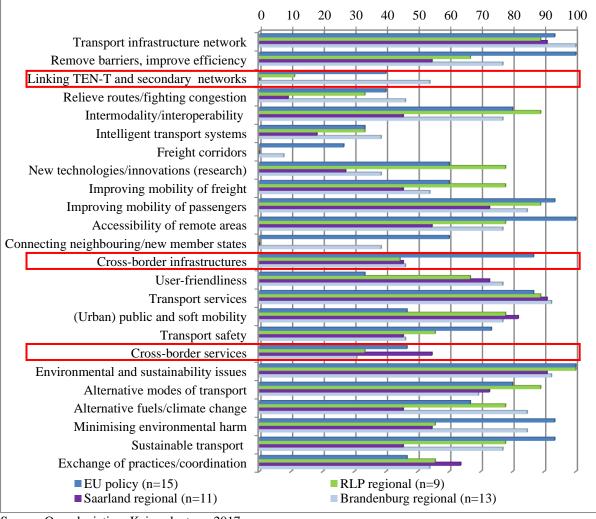
As seen in **Figure 127**, the regional policy documents' promotion of the EU policy objectives varies in relation to several objectives, which underlines the federal structure of Germany as well as the different interests and needs of the regional levels, thereby leading to a varying EU policy influence. Cross-border infrastructures have a similar relevance in all three regions. The promotion of the linkage of the TEN-T and secondary networks is impressively high in Brandenburg, while it is not supported at all by the policy documents in the Saarland. Instead, cross-border services are strongly promoted by the Saarland. The enhancement of the connection to new EU member states was not analysed in the Saarland and Rhineland-Palatinate because they are not located close to them. It has a similar relevance for Brandenburg, since it is promoted by the EU policies. The exchange of practices and coordination is promoted by all three regions, but particularly by the Saarland, which might illustrate the perceived relevance of cooperation across administrative borders. Although no environmental policies from Brandenburg were analysed, it is striking that the policies promote the objectives related to the environment to a very high degree. Thus, the regional transport policies of Brandenburg seem to focus on these objectives to a significant extent.

Rhineland-Palatinate	Saarland	Brandenburg	
■ DEV ■ ENV ■ EU	■DEV ■ENV ■EU	■DEV ■ENV ■EU	
SP T	SP T	SP T	



Source: Own depiction, Kaiserslautern, 2017.

Figure 127: Contribution of the German regional policies to the EU policies' transport-related objectives



Source: Own depiction, Kaiserslautern, 2017.

The comparison of the formal policy implementation in the member states involved in both case studies shows that in decentralised countries such as Germany and Belgium, the regional administrative levels are more aligned with the EU policies, whereas in centralistic countries such as France and Poland, the national level policies show a low level of deviation from the EU objectives. In Poland, both the regional and national level policies are very similar to the EU objectives. The different forms of **state organisation** and the **division of competences** seem to influence the formal implementation of the EU policies to at least some degree. Generally, the subregional policy documents are less aligned with the EU policies. This was also acknowledged by the interviewed stakeholders. In terms of the comparison of

the contribution to the three cross-border transport-related objectives, no clear patterns could be detected. The most relevant administrative levels vary from country to country.

In both case studies, the domestic policies seem to have been aligned to some shifts in the relevance of the EU policies objectives during the **two funding periods**. A slightly higher similarity in terms of the policy documents of Brandenburg-Lubuskie could be detected during the first funding period, whereas the domestic policy documents of the Greater Region seemed to be more aligned to the EU policies during the second funding period. Further, in both cases, the objectives concerning the 'linkage of the TEN-T and secondary networks' and the 'enhancement of cross-border services' were more aligned during the same respective funding periods.

In the cross-border region of Brandenburg-Lubuskie, strong differences in the contribution of the Polish and German policy documents to the EU transport objectives were detected. The Polish policies promoted the EU objectives, including those related to cross-border transport, to a very strong degree when compared to the German policies. They also most frequently defined concrete cross-border projects. In the Greater Region, some objectives were promoted to different degrees by the member states, although others were very similar. All the countries exhibited a similar deviation from the EU objectives. The Luxembourgish policy documents promoted the enhancement of cross-border services and infrastructures the most, while the French policies most frequently defined cross-border projects. These two countries are also the most concerned with cross-border commuters in the Greater Region. Luxembourg is the country that is accessed by most commuters, while Lorraine is the region where most commuters come from. The same applies to Poland. In Lubuskie, furthermore, the condition of the transport system is said to be worse than that in Brandenburg. Additionally, Poland is a new member state. It seems that the Polish policies have been adapted to the EU objectives during the course of the accession of Poland to the EU. At that time, Poland was presumably more open to change. The German policies – in comparison – do not support the EU objectives to a strong degree. However, the missing promotion of some EU objectives does not necessarily mean that the policy documents pursue contrary objectives. They possibly fail to mention certain objectives for different reasons, for example, the objective is considered to be common sense and hence it is not relevant to mention it. Thus, the omission might be due to a lower pressure to adapt<sup>58</sup> as well as the stronger path dependence and inertia of the policies from an 'old' and 'experienced' member state of the EU. Therefore, the EU policy influence seems to be higher in less path dependent countries, which are currently undergoing a period of change and lagging behind the EU standards so that higher pressure to adapt is perceived. Furthermore, the support for the EU objectives varies to a decisive degree from member state to member state, which is independent of the EU policies' promotion. This might be due to the path dependence of the different transport planning systems of the countries. The promotion of the transport objectives has not been strongly coordinated between the countries.

After the Polish policies, the German policies promote the **linkage of the TEN-T and secondary networks** the most. This objective seems to be especially relevant between Brandenburg and Lubuskie, since the German regional policies from Brandenburg promote the objective more than the policies from Rhineland-Palatinate and the Saarland. On average, 39% of the domestic policies of the Greater Region mention the TEN-T, compared to 59% of the domestic policies in Brandenburg-Lubuskie. Thus, the cross-border region of Brandenburg-Lubuskie seems to be more oriented towards the TEN-T corridors that cross their territory.

<sup>&</sup>lt;sup>58</sup> For more potential reasons for the lower pressure, see **chapter 6.4.4**.

*Formal policy implementation in the cross-border and EU soft space programme policies* In both case studies, the cross-border policies deviated more from the EU objectives' relevance than the domestic policies. The difference in terms of the deviation between the domestic and cross-border policies is lower in the Brandenburg-Lubuskie cross-border region. Still, cross-border services and infrastructures are promoted more often in the cross-border policies than in the domestic policies. The cross-border policies more frequently named concrete transport projects than the domestic policies, with the exception of the Polish policies. Cross-border policies seem to be adapted to the individual crossborder regional needs and hence they focus less on general transport objectives and more on the most challenging issues. Therefore, the cross-border policies seem <u>not</u> to contribute to an overall **coordinated implementation of the EU policy objectives** in the cooperating countries. However, they do coordinate **the domestic policy objectives**.

Despite the promotion and coordination attempts regarding cross-border transport in the cross-border policies of both cross-border regions, several **challenges** in terms of **implementing** these policies in the form of concrete projects were reported. These concern either the nature of the policies, since they are not binding and often not visible, or challenging external factors such as financial constraints and a lack of political support.

Another step towards formal implementation – which was mainly addressed in chapter 5 – is the promotion of the EU policy objectives in the EU programmes that were developed with the involvement of the member states. The INTERREG A and B programmes of both case studies promoted the cross-border transport-related EU objectives more strongly between 2007 and 2013 than during the second funding period. As this was also the case in the EU and domestic policies, there seems to be a certain top-down influence on the programmes. The INTERREG A programmes promote crossborder transport more than the transnational INTERREG B programmes. The TEN-T policy in general and the linkage of the TEN-T and secondary networks are promoted most in the INTERREG A programmes of Brandenburg-Lubuskie, which mirrors the high relevance of the TEN-T in the Polish and German policy documents. Thus, the domestic policies strongly influence the EU policy implementation in the programmes. In contrast to the Greater Region, Brandenburg-Lubuskie could not benefit from the TEN-T priority projects because no such project was located in the cross-border region during the first funding period. During the second funding period, both cross-border regions were affected by corridor cross-border sections. The TEN-T programme has influenced several INTERREG programmes, since they both address the TEN-T and partially aim at complementing the corridor development.

Overall, these soft spaces are **facilitated platforms of coordination and exchange** between the member states **when developing** new policy documents and strategies. The contribution of the EU policies and programmes to the development of concrete projects that support the EU transport objectives is evaluated in the next section.

#### Practical implementation in projects

The **INTERREG A** programmes of both cross-border regions have funded a different number of projects and thereby also allocated a different amount of funds to cross-border transport. Furthermore, the thematic concentration has been different. Taking a look at the first funding period, the German-Polish cross-border region of Brandenburg-Lubuskie invested approximately 17.2 million Euros in eleven transport projects. Some 73% of them aimed to only contribute to cross-border infrastructures. The other two cross-border transport-related objectives were not mentioned. In the Greater Region, a total of 1.5 million Euros was spent on seven projects, of which 71% aimed to contribute to cross-border infrastructures and services, while one aimed to contribute to the linkage of the TEN-T and secondary networks. Thus, all three cross-border transport-related objectives were mentioned, although fewer

funds were spent. This shows the **different priority of transport investments** in both cross-border regions – probably due to the different degree of perceived **necessity**. The second funding period is more difficult to evaluate because a low number of projects have been funded thus far. However, in the German-Polish cross-border region, a TEN-T-related project was funded, which has not been the case in the Greater Region thus far. In general, in both case studies, the INTERREG A projects have often concerned **touristic** transport-related issues such as bicycle tracks, which are of low relevance to the daily cross-border traffic flows. Additionally, several **studies** and **exchanges** across borders were conducted. In the German-Polish cross-border region, **concrete cross-border** road **infrastructures** and bridges were funded, whereas the Greater Region has funded a cross-border ferry and non-touristic bicycle infrastructures. Thus, both cases funded a certain amount of concrete infrastructures.

**INTERREG B** funds more (transport) projects within one funding period than INTERREG A. As the German-Polish cross-border region is influenced by two transnational cooperation areas, more projects might have influenced the region. In general, a lower percentage of INTERREG B projects focus on cross-border transport-related objectives, whereas in both case studies, all three objectives were mentioned. Additionally, the INTERREG B projects have aimed to contribute to a higher variety of further EU transport objectives than the INTERREG A projects. When comparing the two case studies, the projects influencing Brandenburg-Lubuskie aimed at contributing to the cross-border transportrelated objectives more frequently. In particular, during the second funding period, the restriction of the transport objectives in the cooperation programme of North-West Europe, which overlaps with the Greater Region, led to a low number of transport projects, of which none contributed to the cross-border transport objectives, whereas in the Greater Region, projects continued to mention all three objectives. The fact that the other cooperation programmes did not exclude the transport objectives shows that transport investments are more important and necessary for the new Eastern European member states and their neighbours than for the old member states. In both cases, the INTERREG B projects use the investments mainly for studies and sometimes for pilot trials and the exchange of experiences. Additionally, several freight transport projects are funded, which contrasts with the case of INTERREG A, where the focus is laid on passenger transport. Only a few projects were implemented on the territory of the cross-border regions and their influence is less direct. Still, the projects are said to have contributed to the development of cooperation between domestic stakeholders from different administrative levels, while the results of the cross-border transport studies might also be applied in the cross-border regions.

In the Greater Region, more **TEN-T** projects have been implemented than in the Brandenburg-Lubuskie cross-border region – potentially because of the higher number of involved member states. Additionally, in the Greater Region, the projects were evenly distributed among the member states, which contrasts with the situation in Brandenburg-Lubuskie, where no purely Polish project was funded. In both cases, EU TEN-T projects of relevance to cross-border transport - comprising several member states - were funded. In the Greater Region, most TEN-T projects focused on rail transport, while in Brandenburg-Lubuskie both rail and road projects were funded. This is probably due to the worse conditions of the road infrastructure in the German-Polish cross-border region. During the second funding period, a higher percentage of projects addressed cross-border transport, although the EU policy has not significantly promoted these objectives to a greater extent. This was the case in both cross-border regions. During the first funding period, often solely national investments were supported. The linkage of the TEN-T and secondary networks was barely promoted during both periods. In both cases, the analysed TEN-T projects have very **low visibility** to the public when compared to the priority projects, TEN-T corridors and especially the INTERREG projects. The influence of the TEN-T projects on internal cross-border transport is discussed controversially, since they focus on long-distance transport flows. This mainly contributes to the external accessibility of the cross-border regions, especially the

main centres. However, as the linkage of the TEN-T and secondary networks in both cross-border regions is not considered to have been efficient thus far, the benefit for the whole cross-border region is debateable.

The comparison of the contribution of the three **types of projects** to the cross-border transport-related objectives in both case studies shows that INTERREG B projects in general support the linkage of the TEN-T and secondary networks the most. Additionally, INTERREG A projects focus most on cross-border infrastructures. However, in the Greater Region, these projects also contribute the most to cross-border services, which is not the case in Brandenburg-Lubuskie, where no INTERREG A project has so far mentioned cross-border services. This illustrates the higher **perceived necessity** of cross-border services in the Greater Region, whereas in Brandenburg-Lubuskie there is a greater need to enhance cross-border infrastructures. In Brandenburg-Lubuskie, at least some TEN-T projects aim to improve cross-border services through their investments. In the Greater Region, some TEN-T projects also promote cross-border services and infrastructures.

In both case studies, the deviation of the projects' contribution to the EU cross-border transport-related objectives was lower during the second **funding period**. Thus, it appears that the EU policy promotion was more targeted and defined clearer objectives between 2014 and 2020. However, the lower deviation is often based on the lower promotion of cross-border transport-related objectives in the EU policies and sometimes solely on an increased contribution to these objectives. Additionally, on average, the deviation of all the EU transport-related objectives increased during the second funding period in the German-Polish cross-border region in contrast to the Greater Region. Therefore, it cannot be stated that the EU policy documents of the second funding period (2014–2020) have contributed to a more efficient transport policy implementation and a higher influence on cross-border transport on the part of EU-funded projects thus far. Moreover, the funding period is still running and hence the final evaluation needs to be postponed until 2020.

Further, **non-EU-funded projects** that promote cross-border transport exist in both case studies. In the Greater Region, cross-border regional cooperation approaches involve the exchange of information and opinions. More concrete infrastructural or service-related projects are developed bilaterally. In the Brandenburg-Lubuskie cross-border region, abstract coordination, studies and the exchange of information take place throughout the whole German-Polish border area. Cross-border services are sometimes developed at the cross-border local and cross-border regional level. Concrete transport infrastructures are implemented individually on both sides of the border. This shows that the implementation of concrete projects is difficult in very large cooperation areas. However, in order to ensure coordinated development, communication and exchanges at higher cooperation levels that involve all relevant entities are favoured. In both cross-border regional needs and do not repeat the EU policy discourse. The projects are less visible due to the lower promotion of these initiatives. Often, funds and political support are missing, which hampers the implementation of common cross-border ideas.

## 6.5.3 Conclusion: Influence of EU policies on cross-border transport

The comparison of both case studies shows that there are some differences in terms of the EU policy implementation and influence due to different domestic **state organisations** and **divisions of competences** within the EU member states. This especially concerns the EU influence on domestic policy documents. Moreover, new EU member states seem to adapt their domestic policies to a greater extent to the EU policy discourse and objectives than older and more path dependent member states. Therefore, cross-border regions consisting of new and old member states show stronger differences in relation to the promotion of EU policy objectives. However, the lack of explicit reference to the EU

policy discourse does not mean that the policy documents pursue contrary objectives. Commonly developed cross-border policy documents usually focus on the most relevant objectives and hence less frequently refer to all the EU objectives.

The **cross-border transport-related** EU policy objectives were promoted the most in countries and at administrative levels with a perception of high pressure and a great need to adapt or in countries that have newly joined the EU. Thus, the **initial situation** plays an important role. Cross-border transport sections with low transport flows are not improved. Cross-border policies also frequently promote the enhancement of cross-border transport. The degree of promotion of the different objectives varies and probably depends on regional needs and discourses. The TEN-T corridors and their linkage to secondary networks seem to be more relevant in cross-border regions with a less developed transport infrastructure.

The **soft space programme policies** are strongly influenced by the domestic and EU policy discourses, which are adapted to the most important challenges and needs in the soft spaces. Additionally, the references made by the INTERREG programmes to the TEN-T illustrate the existence of an influence between the three types of programmes. The soft spaces act as platforms of exchange and coordination between different stakeholder groups and facilitate the development of common policies. With increasing territorial size, their direct influence on cross-border transport is decreased.

Several EU projects have been funded during the last and current funding periods. In terms of the **practical implementation**, different initial situations, for example, the status quo and related necessities and priorities, seem to influence the orientation of EU-funded projects towards the EU cross-border transport-related objectives. INTERREG A and B projects often comprise studies and exchanges across borders, although they also include small-scale infrastructures. INTERREG B projects less frequently support cross-border transport objectives, but they cover a higher variety of EU objectives. Furthermore, the INTERREG B projects rarely directly relate to the smaller cross-border regional territories. Therefore, their direct influence on cross-border transport development is limited to learning and coordination effects. The TEN-T projects fund either domestic or transnational projects, with a focus on large-scale infrastructures or service connections. The three projects of the three programme types have different focuses on cross-border transport. Projects implemented without EU support aim to contribute to those EU objectives that are relevant in the cross-border region.

In general, it is difficult to compare the effectiveness of the two different EU policy funding periods, especially because the second funding period has not yet finished. The deviation of the project's crossborder transport-related objectives from the EU policy discourse decreased during the second funding period, whereas the average deviation from all the transport objectives increased in the German-Polish cross-border region, but not in the Greater Region. Thus, the results are not generalisable.

Cross-border transport improvements are only attempted in places with a pressing need or demand and hence a high motivation and sufficient financial means. The EU policy offers funds in combination with the requirement to implement certain EU objectives. As several projects were funded, this seems to have worked out. However, the EU policy objectives are not very concrete and the EU funds are limited; hence, the policy implementation is not comprehensive and further efforts by member states are necessary to improve cross-border transport. Thus, the EU programmes can only complement the cooperation between member states. Still, the EU-funded projects and the development of policies in the soft spaces seem to have activated stakeholders, led to personal exchanges and the higher visibility of challenges, and facilitated cooperation. However, the implementation of projects needs to be ensured by cross-border regional stakeholders and it cannot be monitored by the EU.

Yet, existing challenges of a political nature remain barriers to the enhancement of cross-border transport, together with diverging interests and competition between the regions. Additionally, financially, the EU funds cannot facilitate the implementation of all the transport objectives.

From the comparison of the two case studies, it <u>cannot</u> be stated that the experienced, more traditional CB relations and more institutionalised structures of the countries involved in the Greater Region more sustainably foster cross-border transport. Additionally, the current cross-border regional space has existed for a similar length of time to the two Euroregions. Practice shows that such a larger cooperation space, which includes more member states, is not necessarily more effective in terms of the coordination of cross-border transport. This is also the case in the German-Polish borderland. Still, the fact that all the nations involved in the Greater Region are old member states seems to lead to lower differences in the promotion of the EU objectives in the domestic policies. Moreover, the status quo of the transport system and cross-border interlinkages seems to be more decisive in relation to the definition of cross-border regional objectives and projects than the cooperation tradition.

#### Interim Conclusion II: Influence of EU policies on cross-border transport

This interim conclusion uses the findings of **chapters 5** and **6** to evaluate the implementation and influence of EU policies on cross-border transport. Further, it discusses the opportunities and challenges associated with promoting cross-border transport at the EU level by relating EU policy making in the field of (cross-border) transport and the contribution of the TEN-T corridors and cross-border regions – as soft spaces – to policy implementation. Additionally, the findings are compared to the results of two other research projects conducted in the same field.

The majority of the EU TEN-T and ETC **policy** objectives are formulated in a very **broad** manner and they do not contain concrete objectives that must be achieved. Moreover, the objectives are not binding for member states. As the member states have significant **room to manoeuvre**, a coordinated formal implementation is challenging. However, due to the high variety seen in the initial transport situations of the member states, it would be very difficult to make the objectives more concrete. Besides that, the EU does not have the relevant competences to oblige member states to implement its objectives. Instead, the objectives were developed in a cooperative manner between the EU and the member states.

Since 2014, the two policies have been intended to become more target-oriented. In this context, the European Commission defined and 'planned' a European **TEN-T** core network. This network shall be enhanced as a priority. The routing of the core network corridors was determined in cooperation with the member states. However, the corridors had to be situated within the **predefined core network**. An advantage of defining the core network at the EU level is that it allows scarce domestic and EU funds to be **concentrated**. However, this also means that other cross-border connections are not enhanced. As it is focused on the primary transport network, the secondary and tertiary cross-border connections are not efficiently supported. The EU's prescribed focus should contribute to the coordination of domestic investments and avoid developments that stop at the national borders. Furthermore, due to the EU-wide approach, the **relevance of coordination is promoted** and made more attractive because of financial incentives. However, in practice several shortcomings have been bemoaned. Among others, the member states are said to be very **reluctant** to focus their funds on the predefined sections. Furthermore, **scarce EU funds** hinder the rapid implementation of the core network.

According to the new **ETC policy** regulations, the objectives of cooperation were to be focused on **less thematic fields** from 2014 onwards. The transport objectives were still promoted within the policy itself. Which objectives were chosen, however, was up to the cross-border regions. This requirement led to the omission of transport objectives in several transnational regions.

# Influence of the EU policies on domestic policy documents and their contribution to cross-border transport

The new Eastern European member states seem to be influenced more strongly by the EU policies, and they repeat the EU policy discourse more than the older member states – partially because of accession requirements and European integration efforts, but potentially also because of different needs.

When looking at the implementation of the three **cross-border transport-related objectives**, they can be seen to only be promoted by some administrative levels – probably those that perceive cross-border transport as a challenge. However, no common pattern could be detected in the comparison between the member states. The promotion of cross-border transport varies. Thus, **the EU objectives** in the field of cross-border transport are **not generally implemented** within the domestic policy documents.

In all the analysed member states, the TEN-T management takes places in national specialised transport divisions, which seldom engage in frequent exchange with the transport planning departments at the national and subnational administrative levels and are not involved in cross-border transport planning between border regions. Therefore, the potential of the TEN-T policy might not be efficiently utilised.

Additionally, the responsibilities of the ETC programmes are seldom located in the transport planning ministries and departments at the different administrative levels. The **integration** of **transnational transport discourses**, as conducted within the EU soft spaces and projects, into the domestic contexts, however, could be enhanced if **domestic transport planners** with the respective competences were involved (BSR TransGovernance 2013, 4ff.). Thus, it is relevant to develop efficient linkages between transport planners and EU policy areas and their respective administrations in the member states, which entail potential funding possibilities for transport projects. This might also increase the influence of the EU policy objectives on the domestic planning documents.

#### EU policy influence on soft spaces and their contribution to cross-border transport

The EU has fostered cooperation in defined soft cooperation spaces such as the INTERREG A and B cross-border regions as well as transport corridors. Some examples of INTERREG A and B cooperation already existed, while others were artificially constructed as part of administrate EU programmes. In addition to these soft spaces, there are further traditionally developed cross-border regions that were developed without EU support.

All these soft spaces are **platforms for exchange and cooperation**, which often address cross-border transport in their own developed policy documents. These documents define transport development strategies and objectives. Due to their cooperative focus, cross-border policies promote cross-border transport-related objectives in most cases to a greater extent than domestic policies. Additionally, they do not mirror the whole EU transport policy discourse, but instead limit their objectives to the perceived **most challenging needs**. The policy documents of the EU-funded cooperation spaces, however, promote the general EU transport discourse more strongly than the residual cross-border policy documents because they are directly dependent on the EU policies. Thus, the EU-supported soft spaces are a tool for increasing the practical influence of the EU policies. However, the different types of soft spaces facilitated by the EU either promote only certain <u>cross-border transport</u>-related objectives. The promotion of these objectives is often below that of the other cross-border policy documents. It depends on the needs of each soft space. Thus, the contribution cannot be generalised.

The policy documents and objectives of **soft spaces** are rarely **coordinated**, even when they overlap with each other. In particular, the coordination of the different TEN-T corridors and the ETC transnational regions could be beneficial for increasing their mutual added value and benefiting from their complementarities. The *BSR TransGovernance* research project acknowledges the potential contribution of the ETC policy to the implementation of the TEN-T corridors. The **coordination** and closer linkage of the 'fixed' **domestic administrative planning** levels and spaces with **soft planning spaces**, that is, cross-border regions through INTERREG, could be of added value for the TEN-T (BSR TransGovernance 2013, 5ff., 2014, 37ff.). Most EU soft space management structures are in contact with domestic transport stakeholders. This potentially contributes to the relation between that level and the regional and subregional levels of the cooperation areas. Therefore, these spaces are often considered to be an intermediate level between the EU and the regional level.

# Influence of the EU policies based on financial incentives and their contribution to cross-border transport

To ensure the EU policy objectives' implementation, the soft cooperation spaces are equipped with funds. These funds are distributed to projects that implement some of the soft spaces' defined EU policy objectives. The different programmes' projects tackled different EU objectives, depending on the soft spaces' needs. In the larger soft spaces (INTERREG B and TEN-T corridors), a higher variety of objectives were tackled than in the INTERREG A projects. Often, the projects aimed at contributing to specific transport objectives not explicitly mentioned in the programmes.

First, some projects have directly invested in the enhancement of cross-border infrastructures and services, and thus they have directly contributed to improved cross-border transport. Compared to the transport needs in the cross-border regions, however, these projects are very rare and they need to be complemented by national investments. Additionally, Pucher, Weiss, and Schausberger 2016) note the contribution of the ETC and CEF financial support to cross-border transport, especially in economically weak cross-border regions. At the same time, they acknowledge that the main transport infrastructure investments need to be paid for by the member states themselves. The ETC programmes they analysed fostered some small-scale infrastructures. The financing of the operation of transport services by EU funds, however, is said to be problematic due to the falsification of competition. As was found in this dissertation, the CEF funds focused on primary TEN-T infrastructure connections. Thus, they could contribute better to the external accessibility of cross-border regions than to the internal accessibility. Therefore, ibid. (2016) argue that EU and national funds are missing for the comprehensive enhancement of regional and local cross-border infrastructures not situated in the TEN-T core network. The promotion and concentration of scarce funds within the TEN-T core network could hence challenge further investments in secondary and tertiary cross-border infrastructures (ibid., 82,114,116,130).

Second, especially in the case of the ETC policy, the financial incentives are said to have **activated stakeholders** and project ideas that would not have occurred without the platform of exchange and potential funding seen in the two case studies. The contact between the transport stakeholders in some projects is said to have continued after the end of the funding and thereby led to further non-EU-funded cross-border initiatives. The *BSR TransGovernance* project agrees with this assessment. It is stated that the ETC could act as a **facilitator of the often challenged coordination** of transport planning across borders – among other reasons, due to hampered communication processes and absent cross-border transport flow data – because of their systematic character. **Cross-border transport data** could be collected within such projects.

Third, it was reported that the cooperation within the EU-financed projects produced **learning processes** that could be made use of in cross-border transport practice. The projects involved stakeholders from different countries and thereby contributed to coordination across borders. This is acknowledged by the *BSR TransGovernance* project. Indeed, the exchange in soft spaces and their platforms is said to be very valuable. Additionally, the financial incentives associated with the ETC policy are said to facilitate **experiments** and the development of **new ideas** and **strategies** that have not previously been applied in the domestic transport planning systems (BSR TransGovernance 2013, 20). The majority of the ETC projects addressing cross-border transport that were analysed by Pucher, Weiss, and Schausberger (2016) dealt with the development of transport **strategies and planning** (ibid., 82,114). Moreover, in the two cross-border regions analysed in this dissertation, studies and concepts were financed in the field of transport. Their implementation in practice, however, needs to be secured by other funds. When the project findings are **properly disseminated**, learning effects of added value – including for non-project participants – could be generated (BSR TransGovernance 2014, 37ff., 2013, 5ff.).

In the two case study regions investigated in this dissertation, the **knowledge of EU-funded projects** on the part of the **domestic transport planners** was manifold. While no INTERREG A and only one INTERREG B project were mentioned in the Brandenburg-Lubuskie cross-border region, the transport planners from the Greater Region seemed to be better informed about the INTERREG A projects. Still, several projects were only named by a transport planner from one country. The INTERREG B projects were less known. In contrast to the German-Polish cross-border region, two TEN-T projects were mentioned. In the Greater Region, however, these were connected to the previous TEN-T priority projects that did not exist in the territory of the Brandenburg-Lubuskie cross-border region. In the *BSR TransGovernance* project, the interviewed domestic transport planners from Sweden and Finland rarely

knew about the INTERREG projects (BSR TransGovernance 2013, 7). As in both case studies in this dissertation, cross-border transport platforms exist that involve transport planners, means that this cannot be the reason for the better knowledge of the projects seen in the Greater Region. The platforms of the Greater Region have almost the same territorial scope as those of the INTERREG cooperation space. This is not the case for the German-Polish cross-border region. Here, the platforms involve transport planners from the whole German-Polish borderland. This might be the reason for the lower relation to the INTERREG A cross-border projects. It might therefore be worth exchanging information about transport-related INTERREG projects in the platforms as is done in the Greater Region. Overall, the transport planners in both case studies referred more frequently to projects not funded by the EU. The interviewed spatial planners from both cross-border regions exhibited a better overview concerning the INTERREG projects. Thus, the potential of the INTERREG and the ETC in relation to cross-border transport could be better utilised if it was better known.

# Conclusion: Opportunities and challenges associated with promoting cross-border transport at the EU level

The coordination of relevant transport axes and the focus on the connection of the domestic transport infrastructures across borders contributes to the coordination of the member states – which is particularly facilitated by the corridor coordinators – and thus makes sense. Still, an implementation cannot be controlled by the EU and instead depends on the member states. The contribution of the TEN-T policy to cross-border transport within European cross-border regions is therefore considered to have been rather low thus far because the CEF funds have had a different focus.

The promotion of transport within the ETC policy is of added value, and the funds mainly facilitate soft albeit highly relevant effects related to the establishment of contacts. However, the implementation of all the policies' objectives cannot be secured because the regions can choose from a high number of objectives according to their particular needs, which challenges the notion of a direct influence. Still, it makes sense that the cross-border regions and project stakeholders choose the objectives according to their parts within the EU.

Overall, the promotion of cross-border transport at the EU level is considered to be a good idea, especially due to its soft influence on the minds of EU citizens, transport and spatial planners as well as decision makers.

# Part 3: Conclusions & Recommendations

Chapter 7 Conclusions: European integration and Europeanisation caused by EU policies in the field of cross-border transport

Chapter 8 Recommendations and the future of cross-border transport in Europe

This chapter offers some conclusions regarding the influence of the two EU policies on cross-border transport and highlights the relations to the theoretic framework, that is, the EU theories and concepts that were described at the beginning of the dissertation.

## Further European integration due to enhanced cross-border transport?

Inefficient cross-border transport is considered to represent a barrier to European **territorial** integration. One might argue that territorial barriers do not matter or else that they can easily be overcome via digitalisation and networking. However, daily life in cross-border regions – as characterised by strong cross-border flows – shows that the opposite is true. Cross-border transport challenges have been reported for decades and, despite a multitude of cooperation attempts, cross-border transport has remained a frequently bemoaned topic in both civil society and administrations. The inner European borders have different characteristics, which means that the challenges associated with cross-border transport also vary. Natural barriers such as mountains and rivers additionally complicate cross-border transport flows, whereas in other cases, a lack of coordination, transport infrastructure and service development prevents smooth cross-border transport. Do these cross-border transport-related challenges represent an **impetus for further European integration**?

I would argue that the transport challenges that exist in daily practice illustrate the societal need to cooperate and integrate in order to improve the situation. The administrations and politicians need to become more active and identify solutions. This makes it necessary to communicate with neighbouring countries.

Additionally, at the **supranational** level, cross-border transport is a frequently mentioned topic that is intended to be enhanced at the EU internal borders. In this context, negotiations among member states and with the European Commission have taken place, and the EU has developed policies that promote the improvement of cross-border transport. Several approaches exist in relation to the coordination of cross-border transport development. The TEN-T policy follows an EU-wide transport network approach, whereas cross-border transport is also tackled more concretely on smaller, transnational scales (i.e. soft spaces) such as individual transport corridors and regions of different sizes. Thus, the EU fosters the enhancement of cross-border transport on several levels within transnational communication processes. Does this **policy-making process** lead to **Europeanisation processes** that enhance cross-border transport as well as contribute to further **European integration**?

Before these questions can be answered, the content of the two EU policies, namely European Territorial Cooperation (ETC) and the Trans-European Transport Networks (TEN-T), must be determined, as must the actions that they promote. I argue that the two policies contain four important elements.

First, the two policies define transport-related **objectives** and thereby contribute to the EU Transport Policy discourse. In this context, both policies formulate the objective of enhancing cross-border transport. The analysis showed that the two policies use similar wording, although they follow distinct focuses. Second, both policies promote the principle of **multi-level governance** and transnational **cooperation** in **soft spaces**, which is considered the third important element. In these soft spaces, the EU policies should be implemented in the respective spatial and functional contexts. Fourth, **financial incentives** are offered in order to ensure the implementation of non-hierarchical policy objectives.

The case studies showed that the EU policies and their related programmes and funds have enhanced cross-border transport in several ways. However, they also illustrated that the EU policies are not a panacea for many of the perceived challenges to cross-border transport. The interviewed stakeholders

frequently called for a stronger coordinative position of the EU in terms of the harmonisation of technical infrastructures and systems, especially in the rail sector. Transport planning has remained a national competence that is bound to the national administrative boundaries. In this context, bureaucratic and legal difficulties related to cooperation have existed. No EU solution has been available for them thus far. Due to the EU **financial incentives**, however, transport projects could be implemented when there would otherwise be insufficient domestic funds available. This co-financing has motivated countries to invest their own domestic funds when possible. Thus, the EU policies have particularly supported crossborder transport in a financial sense. Still, the EU funds are said to be too little, to focus too much on large-scale infrastructures, and to create competition for funds between the countries involved in a crossborder region.

The further analysis of the dissertation proved that the two EU policies have led to different varieties of Europeanisation and European integration processes. It is possible to differentiate the formal and practical implementation of the EU transport objectives as well as soft Europeanisation and integration processes. Their contribution to cross-border transport is discussed in the following.

#### Formal implementation

According to the theory of *neo-functionalism*, **multi-level governance** is decisive for EU policy making. Thus, the combination of different levels both influences the policy implementation and contributes to European integration. The analysis of the formal EU policy implementation in the two case studies showed that the reference made by the different administrative levels' policy documents to the EU objectives varies. The subregional levels rarely referred to the EU policy discourse comprehensively and therefore seemed to be less directly involved in the implementation of the EU objectives. Crossborder transport was promoted by the domestic policy documents of the member states. However, the frequency of that promotion varied among the countries and policy levels. Cross-border transport was promoted most by countries and administrative levels that experience high transport pressure. Not all countries' national-level policy documents frequently referred to cross-border transport. Often, the lower administrative levels defined more concrete cross-border projects and promoted only those transport objectives that were most relevant for their territory. Some of the interviewed stakeholders from the supranational and subnational levels called on the national levels to integrate the EU policy objectives to a stronger degree in order to harmonise the domestic policies. Further, the stakeholder interviews revealed that several EU transport-related objectives were considered to be 'common sense' in all the member states. This sometimes led to the omission of these objectives from the policy documents or else it was difficult to trace back who introduced the objectives first: the EU or the member states.

According to the theory of *new institutionalism*, domestic institutions are often **path dependent**, which hampers policy implementation and European integration because the institutions are reluctant to change or slow their adaptation process. In the analysis of the formal policy implementation, this turned out to be especially the case in the old member states, since they do not repeat the entire EU transport discourse in their domestic policy documents. However, this might also be due to the already accomplished integration between the older member states as a result of several years of coordination and the conscious omission of objectives considered to be 'common sense', as described above. Newer EU member states seem to have felt a stronger need to integrate the EU transport-related objectives into their domestic policies and to use the window of opportunity or mandatory 'must do' involved in the EU accession process to adapt their domestic policies. In these cases, the EU policy influence is easier to prove.

According to the theories of new institutionalism and neo-functionalism, **policy networks** are very relevant to further integration. The **soft and relational spaces** that are promoted by the ETC and TEN-T policies (i.e. the corridor forums and transnational regions) proved to be a sort of policy network,

since they involve administrative stakeholders from different countries and develop their own policies. The ETC and TEN-T policy objectives are to be formally implemented in the **policy documents of the soft spaces**. The two case studies revealed that the formal implementation of the EU transport policy discourse in the soft spaces facilitated by the EU was higher and more comprehensive than that in other soft spaces. However, the transnational policy documents did not strongly promote the cross-border transport-related objectives. The relevance of, and contribution to, cross-border transport decreased with the increasing territorial size of the soft spaces. The policy documents of the residual transnational spaces often focused on certain individual needs and cross-border transport. A direct EU influence on the EU-funded soft spaces was ensured. However, this did not necessarily guarantee the practical implementation.

It turned out to be difficult to differentiate between the influences of the two EU funding periods in terms of the formal implementation of the transport objectives because no strong differences could be observed, while the two case studies showed different tendencies. The promotion of the transport objectives in the ETC programmes of the second funding period (2014–2020), however, depended to a stronger degree on the individual needs and interests of the regions. Yet, some cases existed wherein cross-border transport was not promoted despite the existence of transport challenges because of the low implementation of transport projects during the last funding period as well as the high investment costs.

#### **Practical implementation**

Although the TEN-T network and corridors are 'planned' at the EU level and agreed upon by member states, the practical implementation depends on the decisions and investments of the member states and cannot be enforced by the EU. It was reported that several member states have been reluctant to invest in the main axes. This situation acknowledges the theory of *intergovernmentalism*, which considers that member states decide what they implement and when they cooperate across borders. The financial support of the TEN-T policy is said to be too low and too limited to sufficiently motivate the countries to quickly implement the TEN-T cross-border sections.

In order to increase the likelihood of implementation of the transport objectives of the ETC transnational policies, EU funds have also been offered by the ETC policy. The practical implementation of the ETC policies in the form of EU **co-funded projects** is most visible to the public and makes European integration appear more **tangible**. The benefits of projects that constructed cross-border transport **infrastructures** or linked and expanded TEN-T corridors are very easy to measure. Additionally, more abstract projects were funded that focused on **transport systems** and **tools** for enhancing cross-border transport. In particular, the INTERREG B projects often fostered experiments as well as the development of innovations. These might be **copied** and be of benefit to other entities than those involved. However, this is not ensured automatically, since it strongly depends on the projects' **visibilities**.

The case studies showed that the contribution of the projects to cross-border transport depends on the **individual needs** of the project partners. Despite the larger spaces, <u>often</u> only **scattered EU investments** in services and infrastructures were made, which led to a scattered and not comprehensive added value. Further, it was criticised that the concentration of the TEN-T policy on the major TEN-T axes led to a lack of financial support for small-scale cross-border connections. A further disadvantage of the EU co-funded projects was the necessity of the involved project partners to co-fund the projects. Thus, countries' own resources needed to be available, which excluded the participation of some stakeholders.

In terms of the practical implementation of the EU policies, the interviewed stakeholders from all the member states mentioned the challenges involved in cross-border transport coordination due to different domestic transport **planning processes** and **cultures**. These differences have been persistent and hence

seem to be very **path dependent** – as argued by the theory of *new institutionalism* – because planning has remained a domestic and not become a European competence. A few of the interviewees expected a future approximation due to soft Europeanisation processes fostered by, among others, the ETC policy. However, the majority of interviewees were rather pessimistic in this regard.

#### Soft Europeanisation and integration processes

It was discovered that the existence of the ETC and TEN-T policies led to soft Europeanisation effects. These effects, for example, **learning and exchange** processes, also contribute to further European integration according to the theory of *constructivism*.

According to the two case studies, the ETC policy has developed an added value by facilitating communication and learning between transport stakeholders across borders. Furthermore, it has been acknowledged that the exchange facilitated the development of social contacts between stakeholders with similar functions. Such contacts were of added value for later cooperation projects. Coordination processes between the different members of the transnational programme committees also began during the development of the policy documents - the respective joint programmes - and the definition of objectives. These increased the level of mutual understanding. The coordination was especially fruitful when transport planners and not only politicians were involved. However, it could not be guaranteed by the ETC policy that the developed strategies would be implemented in concrete projects. Additionally, the choice of EU-funded projects followed a **multi-level governance** approach within the ETC. The ETC projects were chosen in a discussion among the member states involved in the respective committees. Thus, the decision was based on regional needs. Generally, the EU support for the ETC programmes ensured cooperation in the cooperation areas. However, the ETC projects did only involve stakeholders who were interested and able to join according to the co-financing principle. The policy therefore excluded other potentially relevant stakeholders and hence did not ensure comprehensive coordination.

In the case of the TEN-T policy, the coordination of transport development was promoted on a rather abstract level that focused on the **primary network**. Participation in the corridor forums – as potential multi-level governance **exchange** and **coordination** platforms of the transport corridors – was not obligatory and involved a large-scale transport perspective. Cross-border regions were not involved in the forums. Regional transport ministries from both sides of a border crossed by a TEN-T corridor could potentially take part. Moreover, the distribution of funding was managed by an EU institution. Therefore, the **choice of projects was <u>not</u> coordinated** based on a transnational regional perspective. Thus, the TEN-T policy did not oblige the member states to engage in mutually active communication within the soft spaces.

In terms of the comparison of both policies, the ETC policy is much more themed towards exchanges and coordination than the TEN-T policy. Generally, these soft Europeanisation processes cannot easily be measured, which contradicts the attempt of the EU to produce more tangible results.

Additionally, the **non-EU-funded** individual cross-border initiatives of the two case studies facilitated both the stakeholder exchange and social contacts across borders. These were reported to lower the barriers to cooperation. Thus, this is not a unique feature of the EU support. Binding decisions could only be made in the individual initiatives and even then, only if the responsible planners and decision makers were involved.

Overall, the **combination of ETC soft spaces** and **non-EU-funded political cooperation** in the same territory has led to higher mobilisation and dynamics in relation to cross-border transport. Cooperation that is only fostered in ETC soft spaces proved to be less efficient and coordinated. The investments were scattered throughout the territory to a stronger degree. Additionally, personal relationships between stakeholders were cultivated less regularly due to the absence of parallel structures. Further, it was

determined that the larger the soft cooperation space, the more difficult it is to obtain support from all cooperation space members in case the planned outputs are only of added value to a small part of the cross-border region.

The **overlapping** of the EU-funded soft spaces was only of benefit when coordination and communication between the soft spaces' organisations existed. This proved to not frequently be the case. Therefore, no strong complementarities existed. The ETC programmes frequently mentioned the TEN-T corridors in their programmes. However, the ETC projects rarely focussed on the corridors. The INTERREG B programmes, which influenced the German-Polish cross-border region, funded such project more often. Generally, the TEN-T corridors are promoted more in the domestic policy documents than in the transnational policies.

The analysis of the dissertation showed that the EU policies have contributed to three kinds of Europeanisation and European integration processes in their attempts to enhance cross-border transport. The influence depended on the initial situations of the member states and cross-border regions and – perhaps most of all –the articulated local needs of the cooperation spaces. Not all the effects of the EU policies could be measured. Instead, they were acknowledged by the interviewed stakeholders. Yet, many cross-border challenges remain, which could not be overcome by the two EU policies.

# 8 Recommendations and the future of cross-border transport in Europe

Based on the findings and conclusions of the analytical part of this dissertation project, the current chapter develops recommendations for the future enhancement of EU cross-border transport. It proposes orientations for the ETC and TEN-T policy fields and provides an outlook on the future of both the two EU policies and cross-border transport. Additionally, it defines further research needs.

# 8.1 Future orientations of the ETC and TEN-T policies and additional initiatives to efficiently improve cross-border transport

This section discusses potential measures to more strongly enhance cross-border transport in the future. Among other options, potential amendments to the EU policies are discussed. Furthermore, additional initiatives are presented that could minimise the current cross-border challenges within the EU.

### More EU transport planning competences in the future?

The **transport objectives** of the EU TEN-T and ETC policies are not directly binding on the member states. The more concrete definition of the TEN-T network in 2014 has not led to the direct implementation of the transport axes and their cross-border sections. Of course, the necessary investments cannot be made within a short time period of just three years, and 13 years remain until the TEN-T core network should be completed in 2030. Ultimately, the member states are the ones who decide whether to invest or not – and several were said to be reluctant – while the EU financial incentives were evaluated to be very low when compared to the actual investment needs. The ETC policy has always been a soft tool for fostering cooperation and overcoming cross-border challenges in order to increase European cohesion. It has thus not prescribed binding transport objectives. With its focus on transnational cooperation – among other issues in the field of transport – it has complemented the TEN-T policy and financially supported cross-border transport on lower scales in a rather scattered manner.

In my opinion, it is useful to have a common basic transport network in the form of the TEN-T, which is agreed upon by the member states and hopefully also implemented as such. However, in addition, the **EU transport planning competences should <u>not</u> be enlarged**. First, this is because of the principle of **subsidiarity**, that is, the **regional needs** need to be taken into account when planning secondary and tertiary networks. Second, I am convinced that the EU administration cannot manage such a detailed planning approach. In contrast to the further centralisation of transport planning tasks, the approach of the ETC policy is considered to be very reasonable in that **transnational committees** decide on common development objectives. These committees consist of members from different administrations of the involved countries. It would be relevant to involve more transport planners and then use such committees to jointly plan the enhancement of cross-border transport using concrete strategies that are adopted by domestic politicians. The communication within these committees could further increase European integration. In order, to increase the likelihood of implementation of the developed strategies, **EU funds** should be offered for these smaller cross-border sections.

## More funds for cross-border transport projects

Financial constraints represent one of the most frequently cited challenges in relation to the improvement of cross-border transport. Additionally, Pucher, Weiss, and Schausberger argue that in addition to the TEN-T, EU **funds** should be offered for **secondary and tertiary cross-border sections** in case there is an **agreement** between the member states involved to jointly plan and establish the missing links. Further, a high **societal demand** or need should exist for the infrastructures to be enhanced (ibid., 132ff.).

At the end of 2016, the first attempt of the TEN-T policy in this direction was introduced, wherein it was acknowledged that smaller cross-border transport connections had not previously been efficiently supported and hence the financial support should be increased during the third call of the CEF. An own priority was declared. The funds (110 million Euros) were particularly focused on smallscale cross-border railway connections, but some road projects were also funded and should react to local societal needs (European Commission and DG Move 2016; European Commission 2017a). This was expected to contribute to the better linkage of the TEN-T core network to the secondary and tertiary networks. The Committee of the Regions proposed in this context to allocate more funds to the ETC INTERREG A cross-border regions during the forthcoming funding period (starting in 2021) so that the ETC could take care of the management of the extra funds for smaller-scale cross-border road, rail and waterway infrastructures and services as well as be a platform for the coordination of transport planning across borders. Passenger and freight transport are to be supported, including enhancing user-friendliness. The Committee of the Regions also acknowledges the potential of crossborder regional committees to coordinate funds and projects according to regional needs and underlines the relevance of a **multi-level governance approach** in order to ensure the sustainable and comprehensive coordination of transport development. This includes all levels of administration and the support of the EU institutions (Scheffer 2017, 1ff.). This proposal sounds promising because existing and experienced programme administration structures and committees that are aware of regional needs could be made use of. However, when designing the new ETC legislation, the experiences of the INTERREG A and B regions with transport priorities in the past should be taken into account, since some challenges were reported. These led to the omission of the transport priorities in the current (2014– 2020) funding period. More transport and spatial planners should be involved in the final project decisions. Additional EU funds for small-scale cross-border sections - if available to a sufficient extent - could **motivate** and enable countries to invest more in the infrastructures and services across borders.

# Better coordination and exchange between the two policies and the corresponding soft spaces

As it was determined that there is almost no **personal communication** between the **EU-funded soft spaces**, this is considered to represent an unused potential for policy coordination. INTERREG secretariats and corridor managers should engage in a better mutual exchange, as should the **different directorate generals** at the European Commission, so as to increase the complementarities of both policies and funds.

The TEN-T investments that currently focus on the core network need to be **complemented** in order to increase the added value for the surrounding regions by efficiently linking them to the **secondary and tertiary networks.** Additionally, the TEN-T policy itself should offer more funds for the accomplishment of the comprehensive network. It is on the cards that INTERREG B projects could develop **concepts** for the linkage of the corridors to the residual transport infrastructures as well as for the better usage of their potential.

Moreover, the **TEN-T and ETC coordination** in the member states should be **linked** more efficiently to the residual **transport planning ministries** and authorities. Increased communication and coordination within the member states is recommended. Spatial planners were found to be more often aware of the ETC projects than transport planners. Therefore, the involvement of transport planners in ETC project decisions is recommended in order to develop linkages in transport practice.

Additionally, the soft spaces existing in parallel to the EU-funded spaces should be better informed about the EU-funded projects so as to develop complementarities and benefit from the project outputs. Thus, the **projects' communication** needs to be enhanced.

### Increasing the added value of EU-funded projects

It is frequently criticised that the TEN-T core network corridors are only of **added value** for places that are connected to and via the corridors. However, this is not only a challenge for the TEN-T corridors, but for **cross-border transport** investments in general. Transport tracks are usually not circular nor do they meander next to a border. Instead, they **connect one place with another** on the other side of a border. This applies to both cross-border infrastructures and services on all territorial scales. The direct benefit is hence limited to the two places that are connected. Therefore, investments in cross-border transport are strongly bound to certain **border crossing points** and **border sections**. Rarely does implementation-oriented cooperation comprise transport across more than one border. When projects solely focus on one cross-border section, they are often **not of interest** to people who are not concerned by it and therefore they receive less support. The number of **alternative border crossing points** influences the degree of concern. If only one border crossing exists, it is of relevance to a larger territory.

The few cooperation projects that concern more than one border crossing point are mainly used for **information exchange** and **coordination** across borders and hence they are less focused on concrete implementation. Some exceptions do exist that facilitate cross-border transport practice in a larger region. One example is the development of a **tool for transport service coordination and information**, which was developed for a whole cross-border region as part of an INTERREG A project. INTERREG B projects developed similar tools and **concepts without direct territorial anchorage** that could be **applied in different spaces**, including smaller cross-border regions. However, the **transfer** to these smaller uninvolved regions seems to only rarely take place.

As the ETC funds are limited and need to be spent on other fields than transport as well, it is recommended that funds be particularly targeted towards projects that have an **added value for the whole cross-border region** rather than scattering investments in small-scale infrastructures. Furthermore, the **dissemination** of INTERREG B project results should be widened so they can be adapted in other places.

The ETC policy prescribes the co-financing principle, which means that not all interested entities can participate in ETC projects if they lack the necessary capital. Therefore, it needs to be taken into account that the European integration processes fostered by the ETC involve only elite stakeholders and not all EU entities. This is why it is of high relevance to disseminate the results and outputs of the funded projects so that they become better **visible to residual society**. In this way, European integration can be enhanced.

The funding period 2014–2020 introduced the need to produce more **tangible results** based on indicators. In terms of the TEN-T policy, this request might be reasonable, since the focus lies on infrastructures. In relation to the ETC, however, a high degree of added value is not countable because it belongs to the category of **soft integration** processes. Thus, the number of constructed roads is not the most relevant output of the ETC policy and should hence not be the factor that decides the policy's success. Instead, as illustrated in the last few chapters, the communication, coordination and development of concepts and strategies in cooperation are much more important than investing in infrastructures in a scattered manner.

### Better integration of transnational exchanges in domestic transport planning

As discussed above, the analysis showed that transport planners were often not informed about transport projects funded by the ETC and TEN-T policies. The information was not communicated further, but instead stayed within the respective committees and departments. Therefore, no **complementarities between domestic transport planning and EU projects** could be developed. Further, it was criticised that ETC projects often stopped being of added value or else the developed concepts were not **implemented** following the end of funding. These challenges could be removed or minimised when

**domestic transport planners** are directly involved in the projects. Additionally, the *BSR TransGovernance* project calls for the integration of domestic transport planners into ETC projects, since this could facilitate the implementation of common concrete planning actions in the involved member states. ETC projects should be strategically developed so that the member states can make use of the ETC projects' non-infrastructural outputs to guide decisions regarding domestic transport planning strategies (BSR TransGovernance 2014, 18ff.).

Moreover, I believe that the **transnational discourse developed in the ETC projects** should be **integrated** better and more systematically not only between the different soft spaces, but also into national planning practice. The *BSR TransGovernance* project goes so far as to suggest that national transport planning representatives should have a mandate and be supported to act in the transnational and INTERREG sphere in order to enlarge their own transnational thinking (BSR TransGovernance 2013, 19f.).

In addition, the *BSR TransGovernance* project recommends involving **national administrations** in any kind of cross-border cooperation, since they are often the decision makers and funders in the field of transport. It would be advantageous to convince them of the importance of the projects in order to obtain their support and ensure that the projects' results are integrated into the domestic and European planning practices at different administrative levels (BSR TransGovernance 2014, 37ff., 2013, 4ff.). This recommendation is especially relevant for the INTERREG B projects and the smaller-scale INTERREG A projects. However, I consider it to be sufficient to involve the regional ministries, depending on their competences in the field of transport. Otherwise, too many national stakeholders might slow down the project's progress.

Moreover, diverging **planning cultures** were frequently mentioned as a barrier to cooperation. These cultures were said to be strongly shaped during planning education. Thus, I recommend considering the stronger **promotion of the international mobility** of spatial and transporting planning **students** to planning faculties in other countries during their studies so that they might get to know and understand other planning cultures. Furthermore, **planning practitioners** working in a border region should participate in **advanced training**, for example, transnational seminars, in order to exchange with planners from the other side of the border and hence become more aware of the issues that hamper cooperation. Therefore, the transnational discourse of planners should be fostered.

# 8.2 Outlook and further research needs

After having presented several recommendations for the future development of the TEN-T and ETC policies and cross-border cooperation, this section provides a short outlook on the further influence of the two policies during the remaining funding period as well as promising further initiatives for enhancing cross-border transport. Finally, it defines further research needs.

In terms of the **practical implementation** of the EU policies, it is expected that some further transport projects of relevance to the cross-border regions will be funded during the remaining three years of the current funding period, since some funds are expected to be left to be spent. These, however, will most likely facilitate only scattered cross-border transport enhancements that can only complement necessary domestic investments. The **formal implementation** of the EU objectives is expected to have been completed already, since the highest level of influence is arguably exerted during the first year of publication of the policy documents.

As the funding period is still running, it was difficult to conclusively evaluate the effects of the changed ETC and TEN-T requirements. Therefore, in 2020, it needs to be evaluated whether the new limited **focus** of the ETC policy has made the policy more efficient. Additionally, it needs to be critically analysed whether the focus on more **tangible results** within the TEN-T and ETC policies has made

European integration more perceivable as well as whether the indicators can be used to describe the two policies' added value. Moreover, it also needs to be determined whether the promoted stronger **coordination of the two policies** has been fruitful. Thus far, the policies do not seem to be coordinated very well, but rather to exist in parallel. Only a few ETC projects have been related to the TEN-T and the overlapping soft spaces do not coordinate their investments. The opening of the third call of the TEN-T policy to **smaller-scale cross-border projects** might be the starting point for the coordination of both policies. The decision regarding the TEN-T projects funded under the CEF call of 2016 was taken at the end of July 2017. It includes one project of relevance to the Greater Region. In total, 13 projects were funded in the special cross-border transport priority (European Commission 2017a, 2ff.). Due to the late decision, the concrete contribution of the projects to cross-border transport could not be analysed further. It would, however, be interesting to do so in order to evaluate its added value.

Additionally, the proposal that the ETC cross-border regions could administrate the new small-scale cross-border transport development sounds promising, although it remains to be seen whether the proposal will be adopted during the new EU funding period. In this context, this issue needs to be clarified, as does the budget from which the new funds will be paid. Overall, however, it needs to be kept in mind that the EU policies and funds cannot replace the domestic and bilateral investments that are necessary in order to sustainably enhance cross-border transport. Yet, the current ETC policy is very effective in facilitating further integration and exchange among member states across borders and therefore it complements the domestic initiatives in a relevant manner.

**Legal differences** are an ongoing challenge for all fields of cooperation. In terms of transport development, cross-border transport services in particular face legal barriers. A potential future solution to cases such as these is the idea of developing the '**European Cross-border Convention**' (ECBC), a legal tool that should define specific regulations that apply to the respective cross-border region. These specific regulations could deviate from the domestic legislations of the countries involved in order to overcome contradictory domestic rules (Ministère du Développement durable et des Infrastructures de Luxembourg (MDDI) 2016, 5ff.). The idea was proposed by the Luxemburgish EU Council Presidency in 2015. Currently, an EU working group is developing this proposal further (Central European Service for Cross-border Initiatives (CESCI) n.y.). The Committee of the Regions suggested making use of this tool to facilitate cross-border services by applying the technical and legal service requirements of one of the neighbouring countries (Scheffer 2017, 7). As the legal tool has not come into force as yet, it remains to be seen whether the proposal will be adopted by the member states. If so, it might simplify transport within cross-border regions in this regard.

The main findings of this dissertation are based on two in-depth case studies and a further nine preliminary case studies. It would be very interesting to expand the in-depth analysis to the other cases and contexts in order to take into account further **initial situations**. In particular, the **formal policy implementation** in **other new member states** besides Poland would be interesting to explore further regarding the reasons for the higher influence of the EU policy discourse on new EU member states.

The dissertation analysed two types of **soft spaces**, namely cross-border or transnational regions and **corridors**. The case study focus was on two cross-border regions that were crossed by a TEN-T corridor, and the interaction between both soft spaces was analysed. However, the corridors were not analysed with regard to their whole territorial scope. Both can be defined as soft spaces, although their territorial scopes are very different. Corridors as linear spaces involve stakeholders that are located farther away from each other if located at different ends than in cross-border regions. This difference might have an influence on the coordination processes in as well as the added value of the corridor forums. Additionally, the outsourcing of project decisions at the EU level might lead to the lower internal

coordination of stakeholders. It would be interesting to compare the processes within transport corridors with the coordination and soft European integration processes within the ETC.

Moreover, it would be interesting to analyse the **policy development** of the TEN-T and ETC policies in the **forthcoming funding period** and apply the **goodness of fit approach** before the policies have been implemented. Thereby, the formal policy implementation in the member states' policy documents could be analysed from scratch. Further, the research concerning the **non-EU-funded cross-border transport projects** could be expanded in the case studies based on a systematic analysis of all national funding documents as well as site visits and further interviews with involved transport planners in order to learn more about the coordination processes. On this basis, the contribution of the EU-funded projects and other projects could be compared in depth so as to evaluate the **policies' added value** in more detail.

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# Lists

Abbreviations

Figures

Images

Tables

#### Abbreviations

AVL - Autobus de la Ville de Luxembourg

BE - Belgium

**BVWP** - Bundesverkehrswegeplan

- CBC Cross-border cooperation
- $CBR-C {\rm ross-border}\ region$
- **CEF** Connecting Europe Facility

**CESER** - Conseil économique, social et environnemental de la région Alsace Champagne-Ardenne Lorraine

- COREST- Comités Régionaux des Services de Transports
- $\mathbf{CP}-\mathbf{Cooperation}$  Programme
- CPER Contrat de Plan État-Région
- CVL Chemins de fer luxembourgeois
- **DB** Deutsche Bahn
- DE Deutschland/Germany

 $\mathbf{DG}-\mathbf{Directorate}\ \mathbf{General}$ 

DG Move - Directorate-General for Mobility and Transport

DG Regio - Directorate General Regional and Urban Policy

DPRW - Déclaration de politique régionale wallonne

DREAL - Direction régionale de l'Environnement, de l'Aménagement et du Logement

DSWP - Development Strategy of Western Poland

DTA - Directives territoriales d'aménagement

**DTW** - Diagnostic territorial de la Wallonie

**EIB** - European Investment Bank

EGTC - European Grouping of Territorial Cooperation

**ERDF** – European Regional Development Fund

ESDP – European Spatial Development Perspective

- ESF European Social Fund
- ETC European Territorial Cooperation
- EU European Union
- FNP Flächennutzungsplan
- $\mathbf{FR} France$
- GDP-Gross Domestic Product

 $GIS-{\rm Geographical\ Information\ System}$ 

- GSC German Speaking Community
- ${\bf GVFG-G} emeindeverkehrsfinanzierung sgesetz$

- $IBA-Interregionale\ Arbeitsmarktbeobachtungsstelle$
- ICE InterCity-Express
- IPR Interregionaler Parlamentarier Rat
- IVK Integriertes Verkehrskonzept
- IVL Integratives Verkehrs- und Landesentwicklungskonzept für Luxemburg
- KARE Koordinierungsausschuss Raumentwicklung
- LBM Livre blanc de la mobilité/Landesbetrieb Mobilität
- LEP-Landes entwick lungs programm/Landes entwick lungs plan
- LEP B-B Landesentwicklungssplan Berlin-Brandenburg
- $\label{eq:LEPro-Landesentwicklungsprogramm} LEPro-Landesentwicklungsprogramm$
- LNDS Long-term National Development Strategy
- **LNVP** Landesnahverkehrsplan
- LUX Luxembourg
- LVDS Lubuskie Voivodeship Development Strategy
- LVSMP Lubuskie Voivodeship Spatial Management Plan
- MNDS Medium-term National Development Strategy
- MoDu Stratégie Globale pour une Mobilité Durable
- MKS Mobilitäts- und Kraftstoffstrategie
- NCS National Cohesion Strategy
- NRCP National Road Construction Programme
- NRP National Railway Programme
- NRSP National Road Safety Programme
- NSDC National Spatial Development Concept
- NSRD National Strategy of Regional Development
- NUTS nomenclature des unités territoriales statistiques
- **OP** Operational Programme
- P&R Park and Ride
- PA Partnership Agreement
- PADD Projet d'aménagement et de développement durable
- PAG Plan d'aménagement general
- PANER Plan d'action national en matière d'énergies renouvelables
- PANMD Plan national d'action pour la mobilité douce
- PAP plans d'aménagement particuliers
- PCA Plan communal d'aménagement
- PCM plan communal de mobilité
- PDAT . Programme Directeur d'Aménagement du Territoire

#### LXVIII

- PDMI Programmes de modernisation des itineraries routiers
- PDU Plan de Déplacements Urbains
- PED Pôle européen de développement de Longwy
- $\mathbf{PL} \mathbf{Poland}$
- PLU plans locaux d'urbanisme

**PMCBR** – Polycentric Metropolitan Cross-border Region (in German: GPMR Grenzüberschreitende Polyzentrische Metropolregion)

- PNC Plan National Climat de la Belgique
- PNDD Plan National du Développement Durable
- PPI projet de plan pluriannuel d'investissements ferroviaires
- PPM Plan Provincial de Mobilité
- PST Plan Directeur Sectoriel Transports
- PUM Plan Urbain de Mobilité
- RB Regionalbahn
- RCU règlement communal d'urbanisme
- **RE** Regionalexpress
- REK Raumentwicklungskonzept/Regionales Entwicklungskonzept
- **REK-GR** Raumentwicklungskonzept der Großregion
- resp. respectively
- **RGTR Régime Général des Transports Routiers**
- ROB-Raumordnungsbericht
- RROP Regionaler Raumordnungsplan
- SCoT Schéma de Cohérance Territoriale
- SDC-GR Spatial Development Concept of the Greater Region
- SDEL Stratégie de développement de l'espace Luxembourgeois
- **SDER** Schéma de développement de l'Espace Régional
- SESE Strategy for Energy Security and Environment
- SMOT Schéma Stratégique de Mobilité Transfrontalière
- SNCB Société nationale des chemins de fer belges
- **SNCF** Société nationale des chemins de fer français
- SNIT Schéma national des infrastructures de transport
- SPDT Schéma Provincial de Développement Territorial
- SPF Service Public Federaux
- SPNV Schienenpersonennahverkehr
- SPW Service Public de Wallonie
- SRADDET Schéma regional d'aménagement, de développement durable et d'égalité des territories
- SRCAE Schémas Régionaux Climat Air Energie

SRCE - Schéma Régional de Cohérence Ecologique

- SRI-SI Stratégie Régionale d'Innovation de la Région Lorraine Specialisation intelligente
- SRM Schéma regional de Mobilité
- SSC Schéma de structure communal
- STI Stratégie territoriale intégrée pour la province de Luxembourg
- TA Territorial Agenda
- TDPL Transport Development Programme of Lubuskie
- TDS Transport Development Strategy
- TEC Transport en Commun
- $\textbf{TEN-T}-Trans-European\ Transport\ Networks$
- TICE Tramways Intercommunaux dans le Canton d'Esch/Alzette
- $VBB- Verkehrsverbund \ Berlin-Brandenburg$
- VDS Voivodeship development strategy
- VEP Verkehrsentwicklungsplan Öffentlicher Personennahverkehr
- VSMP Voivodeship spatial management plans
- WSAGR Wirtschafts- und Sozialausschuss der Großregion
- ${\bf ZPS-} Zweckverband\ Personennahverkehr$
- $\label{eq:spnv-zweckverband} \textbf{ZSPNV}-\textbf{Zweckverband} \ \textbf{Schienenpersonennahverkehr}$

Figure 1: Levels of investigation of the top-down influence of EU policy	6
Figure 2: Structure of the dissertation 1	9
Figure 3: Theoretical approach	23
Figure 4: Authority dimensions of differentiated integration	25
Figure 5: The policy cycle	4
Figure 6: Causal relationship between modes of governance and types of policies	7
Figure 7: Motivations of transfer	2
Figure 8: Development of the number of cross-border cooperations	68
Figure 9: Stages of cross-border cooperation	0
Figure 10: Cross-border commuters to Luxembourg within the Greater Region7	'5
Figure 11: Number of cars per 1000 inhabitants in 2013 8	0
Figure 12: Modal split of inland freight transport in the EU and its member states in 2002 and 2012. 8	\$1
Figure 13: Modal split of inland passenger transport in the EU and its member states in 2002 and 201	
Figure 14: Persons killed in road accidents per million inhabitants 2005-2014 in EU member states . 8	32
Figure 15: Accessibility of freight (left) and passenger transport (right) by rail	3
Figure 16: Urban connectivity by roads	3
Figure 17: Potential intermodal accessibility	34
Figure 18: Accessibility to high level infrastructure in passenger and freight transport per member stat	
Figure 19: High level passenger (left) and freight accessibility (right)	
Figure 20: Accessibility of urban functions	
Figure 21: Travel time (minutes) to the next hospital in different member states	57
Figure 22: Potential internal population accessibility of member states by rail	
Figure 23: Investments of Cohesion Policy funds in transport infrastructure per member state (2007) 2013) in million €	
Figure 24: Impact of EU Transport Policies (2007-2013) on economic growth	91
Figure 25: Transport Policy milestones between 1957 and 1999	97
Figure 26: Transport Policy milestones between 2001-2006	
Figure 27: Transport Policy milestones between 2009 and 2013	)1
Figure 28: Policy implementation procedures in European Territorial Cooperation 2007-2013 and 2014 2020	4-
Figure 29: Cohesion Policy milestones between 1957 and 2000	
Figure 30: Cohesion Policy milestones influencing the funding period 2007-2013	3
Figure 31: Cohesion Policy milestones influencing the funding period 2014-2020	
Figure 32: Investment priorities of the Cohesion Policy 2014-2020	6

Figure 33: Distribution of the budget in European Territorial Cooperation (2014-2020): 8,95bn	n. € 119
Figure 34: Cohesion and Transport Policy objectives for 2007 -2013 and 2014-2020	122
Figure 35: European integration and cross-border transport - Relational linkages	129
Figure 36: Definition of transport priorities in the INTERREG IV A programmes (2007-2013).	144
Figure 37: Contribution of the INTERREG IVA programmes to the EU policy objectives	145
Figure 38: Definition of a transport priority in the INTERREG IV A programmes (2014-2020)	148
Figure 39: Contribution of the INTERREG A programmes of 2007-2013 and 2014-2020 to transport objectives	
Figure 40: Transport objectives of the transnational INTERREG IV B programmes 2007-2013	153
Figure 41: Transport priority in the transnational INTERREG V B programmes (2014-2020)	155
Figure 42: Contribution of the transnational INTERREG V B programmes to the EU policy of	0
Figure 43: Map PP4	160
Figure 44: Promotion of the EU transport-related objectives by the priority projects	162
Figure 45: Promotion of the EU transport-related objectives by the core network corridors' we	-
Figure 46: Profile Finland – Estonia – Latvia – Sweden (Central Baltic) & Scandinavian Medit corridor	erranean
Figure 47: Relevance of the transport objectives of the case studies' cross-border regions in funding periods	
Figure 48: Meaning of cross-border transport in the ETC and TEN-T policy	184
Figure 49: Influence of TEN-T corridor on cross-border transport according to the INT Secretariats (left) and the Corridor Coordinators (right)	
Figure 50: Contribution of the TEN-T corridors (left) and the INTERREG A programmes (n secondary and tertiary transport networks according to the INTERREG secretariats (n=6)	U /
Figure 51: Coordination of TEN-T and ETC policy according to the INTERREG secretariats ( corridor coordinators (right)	
Figure 52: State hierarchy in Germany	192
Figure 53: Composition of the German national policy documents (n=12)	196
Figure 54: Comparison of the relevance of cross-border transport and TEN-T in the German policy objectives and EU policy objectives	
Figure 55: Evaluation of the status quo of the cross-border transport in the Greater Region interviewed stakeholders (n=38)	•
Figure 56: State hierarchy in Belgium	222
Figure 57: State hierarchy in France	228
Figure 58 State hierarchy of Luxembourg	242
Figure 59: Composition of the analysed Belgian policy documents (n=31)	249
Figure 60: Contribution of Belgian policy documents to EU transport-related objectives	251
Figure 61: Composition of the analysed French policy documents (n=21)	255

Eigure 62: Contribution of the Erench policy chiestives to EU policy transport related chiestives 257
Figure 62: Contribution of the French policy objectives to EU policy transport-related objectives 257
Figure 63: Composition of the analysed German policy documents (n=36)
Figure 64: Contribution of the German policy objectives to EU policy transport-related objectives. 264
Figure 65: Composition of the analysed Luxembourgish policy documents (n=15) 268
Figure 66: Contribution of the Luxembourgish policy objectives to the EU policy transport-related objectives
Figure 67: Contribution of the cross-border policies' objectives to EU policy transport-related objectives
Figure 68: Composition of the domestic policy documents
Figure 69: Relation of the domestic and cross-border policies' to the TEN-T and cross-border transport
Figure 70: Contribution of the domestic and cross-border policies to cross-border transport
Figure 71: Definition of concrete cross-border projects of the domestic and cross-border policies 282
Figure 72: Contribution of the national administrative level policies to the EU policy transport-related objectives
Figure 73: Contribution of the regional administrative level policies to the EU policy transport-related objectives
Figure 74: Contribution of the subregional administrative level policies to the EU policy transport- related objectives
Figure 75: Contribution of the domestic policies to the EU policy transport-related objectives 2007-2013 (left) and 2014-2020 (right)
Figure 76: Contribution of the cross-border policies to the EU policy transport-related objectives 297
Figure 77: Contribution of the INTERREG A projects (2007-2013) to the EU policy objectives 304
Figure 78: Contribution of the INTERREG A projects (2014-2020) to the EU policy objectives 307
Figure 79: Character of the NWE projects 2007-2013
Figure 80: Contribution of the NWE INTERREG B projects (2007-2013) to the EU policy objectives
Figure 81: Present contribution of the INTERREG B projects (2014-2020) to the EU policy objectives
Figure 82: Contribution of the TEN-T projects (2007-2013) to transport modes (n=21)
Figure 83: Contribution of the TEN-T projects (2007-2013) in the Greater Region to the EU policy objectives
Figure 84: Contribution of the TEN-T projects (2014-2020) to transport modes (n=13)
Figure 85: Contribution of the TEN-T projects (2014-2020) to the EU policy objectives
Figure 86: Contribution of the different EU funded projects to the EU policy objectives
Figure 87: Contribution of the EU funded projects to the EU policy objectives during the two funding periods
Figure 88: Popularity of INTERREG A (green) and B projects (blue) (2007-2013) in the interviews

Figure 89: Foreign employees which work in Brandenburg June 2016
Figure 90: Evaluation of the status quo of cross-border transport in the Brandenburg-Lubuskie cross- border region by the interviewed stakeholders (n=18)
Figure 91: State hierarchy in Poland
Figure 92: National development strategies in Poland
Figure 93: Composition of the German policy documents (n=28)
Figure 94: Contribution of the German policy objectives to EU policy transport-related objectives. 386
Figure 95: Composition of the Polish policy documents (n=23)
Figure 96: Contribution of the Polish policy objectives to EU policy transport-related objectives 392
Figure 97: Contribution of the cross-border policies' objectives to EU policy transport-related objectives
Figure 98: Composition of the German (left, n=28)) and Polish (right, n=23) policy documents 398
Figure 99: Relation of the different domestic and cross-border policies to cross-border transport and the TEN-T
Figure 100: Contribution of the domestic and cross-border policies to EU policy transport-related objectives
Figure 101: Definition of concrete projects in the policy documents
Figure 102: Contribution of the German and Polish national administrative level policies to the EU policy transport-related objectives
Figure 103: Contribution of the German and Polish regional administrative level policies to the EU policy transport-related objectives
Figure 104: Contribution of the German and Polish policies to the EU policy transport-related objectives 2007-2013 (left) and 2014-2020 (right)
Figure 105: Contribution of the cross-border policies to the EU policy transport-related objectives. 409
Figure 106: Focus of the INTERREG A projects Brandenburg-Lubuskie (2007-2013)
Figure 107: Contribution of the INTERREG A projects (2007-2013) to the EU policy objectives 415
Figure 108: Contribution of the INTERREG A projects (2014-2020) to the EU policy objectives 417
Figure 109: Investigated roads and railways of the SoNorA project
Figure 110: Character of the Central Europe projects 2007-2013 (n=20)
Figure 111: Contribution of the Central Europe projects (2007-2013) to the EU policy objectives 423
Figure 112:Character of the Central Europe projects 2014-2020 (n=9)
Figure 113: Contribution of the Central Europe projects (2014-2020) to the EU policy objectives 425
Figure 114: Character of the Baltic Sea Region projects 2007-2013 (n=15)
Figure 115: Contribution of the Baltic Sea Region projects (2007-2013) to the EU policy objectives
Figure 116: Character of the Baltic Sea Region projects 2014-2020 (n=4)
Figure 117: Contribution of the Baltic Sea Region projects (2014-2020) to the EU policy objectives

Figure 118: Contribution of the TEN-T projects (2007-2013) in the German-Polish border region to the EU policy objectives
Figure 119: Character of the TEN-T projects (2007-2013) (n=4)
Figure 120: Contribution of the TEN-T projects (2014-2020) in the German-Polish border region to the EU policy objectives
Figure 121: Contribution of the Central Europe and Baltic Sea Region Operational Programmes' projects (2007-2013) to the EU policy objectives
Figure 122: Contribution of the different EU funded projects to the EU policy objectives
Figure 123: Contribution of the EU funded projects to the EU policy objectives during the two funding periods
Figure 124: Popularity of INTERREG A (green) and B projects (blue) (2007-2014) in the interviews
Figure 125: Price level indices of the four countries and the EU28 (OECD=100, data from 2016) 463
Figure 126: Composition of the policy documents at the German regional level
Figure 127: Contribution of the German regional policies to the EU policies' transport-related objectives
Figure 128: Map PP1xcii
Figure 129: Map PP2xciii
Figure 130: Map PP3xciv
Figure 131: Map PP5xciv
Figure 132: Map PP6xcv
Figure 133: Map PP7xcv
Figure 134: Map PP8xcvi
Figure 135: Map PP9 xcvi
Figure 136: Map PP11xcvii
Figure 137: Map PP12xcvii
Figure 138: Map PP13xcviii
Figure 139: Map PP14xcviii
Figure 140: Map PP16xcviii
Figure 141: Map PP17 xcix
Figure 142: Map PP18 xcix
Figure 143: Map PP19c
Figure 144: Map PP20c
Figure 145: Map PP22c
Figure 146: Map PP24 ci
Figure 147: Map PP23 ci
Figure 148: Map PP25cii
Figure 149: Map PP26 cii

Figure 150: Map PP29 cii
Figure 151: Map PP30ciii
Figure 152: Territorial scope of the Baltic Adriatic Corridorcv
Figure 153: Map of the Mediterranean Corridor
Figure 154: Map of the Orient East Med Corridor cviii
Figure 155: Map of the Rhine Alpine Corridorcx
Figure 156: Map of the Rhine Danube Corridor cxii
Figure 157: Map of the Scandinavian Mediterranean Corridor cxiii
Figure 158: Reference of cross-border transport (left) and the TEN-T (right) in German national policies (n=12)
Figure 159: Relation of the Belgian national policies to cross-border transport (left) and the TEN-T (right) (n=10)
Figure 160: Contribution of the Belgian national aims to EU policy transport related aims clxx
Figure 161: Relation of the Belgian regional policies to cross-border transport (left) and the TEN-T (right) (n=12)
Figure 162: Contribution of Belgian Walloon regional aims to EU policy transport related aims. clxxiv
Figure 163: Relation of the Belgian subregional policies to cross-border transport (left) and the TEN-T (right) (n=8) clxxiv
Figure 164: Contribution of Belgian subregional aims to EU policy transport related aims clxxvi
Figure 165: Relation of the Belgian policies to cross-border transport (left) and the TEN-T (right) (n=31)
Figure 166: Relation of the French national policies to cross-border transport (left) and the TEN-T (right) (n=7)
Figure 167: Contribution of French national aims to EU policy transport related aims clxxviii
Figure 168: Contribution of French regional (Lorraine) aims to EU policy transport related aims clxxxi
Figure 169: Contribution of French subregional objectives to EU policy transport related aims clxxxii
Figure 170: Contribution of the French intermunicipal policies' objectives to EU policy transport related objectives
Figure 171: Relation of the French policies to cross-border transport (left) and the TEN-T (right) (n=21)
Figure 172: Relation of the German regional policies (Rhineland-Palatinate) to cross-border transport (left) and the TEN-T (right) (n=9) clxxxv
Figure 173: Contribution of the German regional (Rhineland-Palatinate) policies' objectives to EU policy transport related objectives
Figure 174: Contribution of the German regional (Saarland) policies' objectives to EU policy transport related objectives
Figure 175: Contribution of the German subregional (Rhineland-Palatinate) policies' objectives to EU policy transport related objectivescxc
Figure 176: Relation of the German policies to cross-border transport (left) and the TEN-T (right) (n=36) cxci

Figure 177: Relation of the national Luxemburgish policies to cross-border transport (left) and the TEN- T (right) (n=14)cxci
Figure 178: Contribution of the Luxemburgish national policies' aims to EU policy transport related aims
Figure 179: Contribution of the cross-border regional policies' aims to EU policy transport related aims
Figure 180: Cross-border road development of the PEDcciv
Figure 181: SMOT Lorraine - Luxembourgccvi
Figure 182: Transport objectives of the SMOT Wallonia - Luxemburgccix
Figure 183: Contribution of the cross-border local policies' aims to EU policy transport related aims
Figure 184: Contribution of the domestic and cross-border policy aims to the EU policy transport related aims
Figure 185: Relation of the German regional policies (Brandenburg) to cross-border transport (left) and the TEN-T (right) (n=13) ccxiii
Figure 186: Map of the LEP B-B: Transnational Transport Corridorsccxv
Figure 187: Contribution of the German regional (Brandenburg) policies' objectives to EU policy transport related objectivesccxvi
Figure 188: Contribution of the German subregional (Brandenburg) policies' objectives to EU policy transport related objectivesccxvii
Figure 189: Relation of the German policies to cross-border transport (left) and the TEN-T (right) (n=28)
Figure 190: Relation of the national Polish policies to cross-border transport (left) and the TEN-T (right) (n=15)ccxviii
Figure 191: Contribution of the Polish national policies' objectives to EU policy transport related objectives
Figure 192: Contribution of the Polish regional objectives to EU policy transport related objectivesccxxvii
Figure 193: Relation of the Polish policies to cross-border transport (left) and the TEN-T (right) (n=23)ccxxviii
Figure 194: Relation of the transnational cross-border policies to cross-border transport (left) and the TEN-T (right) (n=7)ccxxviii
Figure 195: Contribution of the cross-border transnationall policies' aims to EU policy transport related aims
Figure 196: Contribution of the cross-border local policies' aims to the EU policy transport related aimsccxxxiv
Figure 197: Contribution of the German and Polish policies' aims to cross-border transportccxxxvi

LXXVIII

# Images

Image 1: Spatial conceptualisation of corridors	. 38
Image 2: Spatial shapes of the EU macro-regions	. 39
Image 3: Different territorial sizes of INTERREG A cross-border regions: Central Baltic (blue) Brandenburg-Lubuskie (red)	
Image 4: Status quo of cross-border cooperation in Europe	. 68
Image 5: Development of cross-border cooperations over time	. 72
Image 6: The evolution of INTERREG/ European Territorial Cooperation	112
Image 7: Scope of the INTERREG IV A cross-border regions (2007-2013)	142
Image 8: Scope of the INTERREG V A cross-border regions (2014-2020)	146
Image 9: Map of the transnational cooperation programmes (2007-2013)	150
Image 10: Map of the transnational cooperation programmes (2014-2020)	154
Image 11: Map of the TEN-T core network corridors	158
Image 12: Map PP27	160
Image 13: Map PP28	161
Image 14: Territorial scope of the Atlantic corridor	163
Image 15: Map of the North Sea Baltic corridor	165
Image 16: Map of the North Sea Mediterranean corridor	167
Image 17: Classification of cooperation maturity of cross-border regions	170
Image 18: Map of the nine cross-border regions chosen for the preliminary case studies	171
Image 19: Location and territorial shape of the Greater Region and the INTERREG A region	199
Image 20: Territorial scope of the cross-border institutions of the Greater Region	201
Image 21: Regional and medium centres as well as functional spaces in the Greater Region	205
Image 22: Natural barriers in the Greater Region: border rivers (in red)	206
Image 23: Major transport infrastructures of the Greater Region in 2013	208
Image 24: Cross-border bus connections within the Greater Region (2015)	209
Image 25:Cross-border rail connections within the Greater Region (2015)	210
Image 26: Car sharing parking spaces in the Greater Region close to Luxembourg	210
Image 27: Impressions of cross-border transport in the Greater Region	211
Image 28: Sectoral plans in the Belgian Walloon region	225
Image 29: Management structure of the Walloon public bus transport services	228
Image 30: French regions and the region Grand Est	229
Image 31: Map of the location of the regional public transport services committees	232
Image 32: Subregional planning areas of Rhineland-Palatinate	237
Image 33: Territories of the Zweckverband Nord and the Zweckverband Süd and transport associati	ions
	239

# Images

Image 34: Loraine 2020: Waterway and road networks of the Greater Region
Image 35: Priority transport projects in the Greater Region
Image 36: Territorial shape of the INTERREG A region Brandenburg-Lubuskie
Image 37: Cross-border institutions of the cross-border region Brandenburg-Lubuskie
Image 38: Impressions of cross-border transport in the Brandenburg-Lubuskie cross-border region 364
Image 39: Map of the border rivers and cross-border bridges in the cross-border region Brandenburg- Lubuskie
Image 40: Planning regions in Brandenburg
Image 41: Voivodeships of Poland
Image 42: Main transport tracks of Lubuskie as depicted in the LVDS 2020
Image 43: Gemeinsames Zukunftskonzept 2030 Germany-Poland: action area "Improve the transport connections"
Image 44: Rail track of the Via Regia+ project
Image 45: Location of the Rail Baltica Growth Corridor (in green)
Image 46: Rail challenges in the Grand Est clxxix
Image 47: Road challenges in the Grand Est clxxx
Image 48: Waterway challenges in the Grand Est clxxx
Image 49: Transport orientations of the SCoT Arrondissement Sarreguemines clxxxiii
Image 50: P&R infrastructures of Luxemburg (2012) cxciii
Image 51: Spatial vision on the main transport development axes of the Saar-Lor-Lux+ Spacecxcvii
Image 52: Cross-border transport in the GECT Alzette-Belval ccviii
Image 53:Vision of the Polish road (left) and rail network (right) in 2030ccxix
Image 54: Urban Centres – Polycentric settlement structure of Poland 2010 and 2030ccxx
Image 55: Public railway lines in Lubuskieccxxvi
Image 56: Railway transport connections between Brandenburg and Lubuskieccxxix

# Tables

Table 1: Transport objectives criteria list for the policy document analysis
Table 2: Overview of the nine preliminary case studies    10
Table 3: Keywords for the policy document analysis    12
Table 4: Two-step implementation effectiveness evaluation    55
Table 5: Constructed road kilometres by Cohesion Policy in 2007-2013    90
Table 6: Objectives of the Transport Policy documents from 2001-2006 100
Table 7: Objectives of the Transport Policy documents from 2009-2013 105
Table 8: Overview of the objectives of Transport Policy 2001-2013 108
Table 9: Objectives of the main Cohesion Policy documents for the funding period 2007-2013 115
Table 10: Objectives of the main Cohesion Policy documents for the funding period 2014-2020 118
Table 11: Overview of the objectives of the Cohesion Policy documents 2005-2013 in the field of transport
Table 12: Special focuses of Transport and Cohesion Policy (2007-2020)    121
Table 13: Comparison of the transport-related objectives of ETC and TEN-T policy 2007-2013 123
Table 14: Comparison of the reasons for the support of cross-border transport (2007-2013) 124
Table 15: Comparison of the transport-related objectives of ETC and TEN-T Policy 2014-2020 126
Table 16: Comparison of the reasons for the support of cross-border transport (2014-2020) 126
Table 17: Checklist: Decisive characteristics of the cross-border regions and their internal cooperation
Table 18: List of the analysed cross-border region's cooperation programmes       143
Table 19: List of the analysed cross-border region's cooperation programmes
Table 20: List of the INTERREG B transnational cooperation programmes 2007-2013 149
Table 21: Analysed transnational cooperation programmes 2007-2014 and the countries involved 153
Table 22: List of the 30 priority projects (2004)    159
Table 23: List of the core network corridors    163
Table 24: List of the initial nine case studies    170
Table 25: Profile Spain-Portugal & Atlantic corridor    172
Table 26: Profile Slovenia – Austria & Baltic Adriatic corridor 173
Table 27: Profile France – Italy (ALCOTRA) & Mediterranean corridor 174
Table 28: Profile Brandenburg – Lubuskie & North Sea Baltic corridor 175
Table 29: Profile France – Belgium – Germany - Luxembourg & North Sea Mediterranean corridor
Table 30: Profile Austria – Hungary & Orient East Med corridor    177
Table 31: Profile Germany– The Netherlands & Rhine Alpine corridor
Table 32: Profile Slovakia – Hungary & Rhine Danube corridor    179
Table 33: Comparison of the key characteristics of the nine cases – initial situation

### Tables

Table 34: Comparison of the nine soft spaces' policies and mutual relations	182
Table 35: Contribution of the nine INTERREG programmes to the EU cross-border transport obj         between 2007 and 2013 (1) and 2014 and 2020 (2)	
Table 36:Overview of the characteristics of the in depth case studies	191
Table 37: German national policies which influence the transport development in cross-border	-
Table 38: Distribution of competences in the field of transport infrastructures	246
Table 39: Distribution of competences in the field of transport services	247
Table 40: Belgian domestic policy documents analysed	248
Table 41: Average deviation of the Belgian policies from the EU policies	251
Table 42: Analysed French policy documents	254
Table 43: Average deviation of the French policies from the EU policies	258
Table 44: Transport-related documents on regional and subregional German level	261
Table 45: Average deviation of the German policies from the EU policies	264
Table 46: Luxembourgish national transport-related policies	267
Table 47: Average deviation of the Luxembourgish policies from the EU policies	270
Table 48: Policies on cross-border regional level of the Greater Region	271
Table 49: Average deviation of the cross-border policies from the EU policies	276
Table 50: Level of definition of concrete cross-border projects by the domestic policies	282
Table 51: Average deviation of the member states' policies and cross-border policies from t	
Table 52: Average deviation of all categories of the member states' national policies	288
Table 53: Average deviation of all objectives of the member states' regional policies	290
Table 54: Average deviation of all categories of the member states' subregional policies	293
Table 55: Average deviation of the member states' domestic policies from the respective EU p depending on the funding period	
Table 56: Further INTERREG A transport projects of the Greater Region (2007-2013)	303
Table 57: Further INTERREG A transport projects of the Greater Region (2014-2020)	306
Table 58: Further INTERREG B transport projects of North West Europe (2007-2013)	309
Table 59: North-West Europe INTERREG B transport projects (2014-2020)	312
Table 60: Distribution of competences in the field of transport infrastructures in Germany and	
Table 61: Distribution of competences in the field of transport services in Germany and Poland .	382
Table 62: Transport-related documents at subnational German level (Brandenburg)	384
Table 63: Average deviation of the German policies from the EU policies	385
Table 64: Analysed Polish domestic policy documents	389
Table 65: Average deviation of the Polish policies from the EU policies	393
Table 66: Transnational policy documents of Brandenburg-Lubuskie LXXXII	394

## Tables

Table 67: Average deviation of the cross-border policies from the EU policies
Table 68: Average deviation of the member states' policies and cross-border policies from the EU policies      400
Table 69: Level of definition of concrete cross-border projects by the German and Polish policies 401
Table 70: Average deviation of the German and Polish domestic policies from the respective EU policies depending on the funding period
Table 71: Further INTERREG B Central Europe transport projects (2007-2013)
Table 72: Further INTERREG B Central Europe transport projects (2014-2020)
Table 73: Further INTERREG B Baltic Sea Region transport projects (2007-2013)
Table 74: Further INTERREG B Baltic Sea Region transport projects (2014-2020)       433
Table 75: Characteristics of the two cross-border regions    462
Table 76: Economic characteristics of the two cross-border regions    462
Table 77: Objectives of the Transport and Cohesion Policy in the field of transport between 2007-2020
Table 78: List of the priority projects described beneath xcii
Table 79: Objectives of the priority projects    104
Table 80: List of the core network corridors described beneathcv
Table 81: Aims of the TEN-T Core Network Corridors cxiv
Table 82: List of the analysed cross-border region's cooperation programmes presented beneathcxv
Table 83: List of the analysed cross-border region's cooperation programmes cxxxiii
Table 84: List of the INTERREG B Transnational Cooperation Programmes 2007-2013 presented         beneath       clvii
Table 85: Transport aims of the Transnational Operational Programmes 2007-2013 clx
Table 86: Analysed transnational cooperation programmes 2007-2014 presented beneath clx
Table 87: Transport aims of the Transnational Cooperation Programmes 2014-2020 clxiv
Table 88: Relevance of the transport objectives of the case studies' CBRs in the two funding period
Table 89: Belgian national policy documents analysed    clxviii
Table 90: Purely touristic projects funded between 2007 and 2013 in the Brandenburg - Lubuskie cross-border region

LXXXIV

# **Curriculum Vitae**

LXXXV

LXXXVI

### **Curriculum Vitae**

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#### **Work History**

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LXXXVIII

# Appendix

X1 EU Policies influencing cross-border transport

**X2** Implementation of the TEN-T and ETC policies in soft spaces

X3 Implementation of European Policies in European Cross-Border Regions

- Contribution to Cross-Border Transport

X4 List of interview partners

**X5 Interview Questions (Example)** 

# X.1 EU policies influencing cross-border transport

#### X.1.1 Coordination of EU policy documents influencing cross-border transport in the EU Table 77: Objectives of the Transport and Cohesion Policy in the field of transport between 2007-2020

Objectives	WP 2001	TEN- T 2004	MTR 2006	Sum	GP 2009	TEN- T 2010	WP 2011	GrP 2011	TEN- T 2013	CEF 2013	Sum since 2009	Total Sum <b>Trans-</b> port	SG 2005	ERDF 2006	Sum	ETC 2013	G&J 2013	CP 2013	CF 2013	Sum	Total Sum <b>Cohe-</b> sion	Total Sum both
Transport infrastructure network	1	1	1	3	1	1	1	1	1	1	6	9	1	1	2		1	1	1	3	5	14
Remove barriers, improve efficiency	1	1	1	3	1	1	1	1	1	1	6	9	1	1	2	1	1	1	1	4	6	15
Linking TEN-T and secondary networks	1			1			1				1	2	1	1	2		1	1		2	4	6
Relieve routes/fighting congestion	1	1	1	3		1	1		1		3	6			0					0	0	6
Intermodality/interoperability		1	1	2	1	1	1	1	1	1	6	8	1	1	2			1	1	2	4	12
Intelligent transport systems		1	1	2			1		1		2	4			0		1			1	1	5
Freight corridors		1		1			1		1		2	3			0			1		1	1	4
New technologies/innovations (research)	1		1	2	1	1	1		1	1	5	7	1		1		1			1	2	9
Improving mobility of freight		1		1	1	1	1	1	1	1	6	7			0		1	1		2	2	9
Improving mobility of passengers	1	1	1	3	1	1	1	1	1	1	6	9	1	1	2	1	1		1	3	5	14
Accessibility of remote areas	1	1	1	3	1	1	1	1	1	1	6	9	1	1	2	1	1	1	1	4	6	15
Connecting neighbouring/new member states	1	1		2	1	1	1	1	1		5	7		1	1	1				1	2	9
Cross-border infrastructures	1	1	1	3	1	1	1	1	1	1	6	9	1	1	2	1		1		2	4	13
User-friendliness	1			1	1		1		1		3	4	1		1					0	1	5
Transport services	1		1	2	1	1	1	1	1	1	6	8	1	1	2		1	1	1	3	5	13
(Urban) public and soft mobility	1		1	2			1		1		2	4	1		1			1	1	2	3	7
Transport safety	1	1	1	3	1	1	1	1	1	1	6	9	1		1		1			1	2	11
Cross-border services			1	1			1		1		2	3		1	1	1	1	1		3	4	7
Environmental and sustainability issues	1	1	1	3	1	1	1	1	1	1	6	9	1	1	2	1	1	1	1	4	6	15
Alternative modes of transport	1	1	1	3		1	1		1	1	4	7	1	1	2		1	1	1	3	5	12
Alternative fuels/climate change				0	1		1	1	1	1	5	5	1		1	1	1	1	1	4	5	10
Minimising environmental harm	1	1	1	3	1	1	1	1	1		5	8	1	1	2	1	1	1	1	4	6	14
Sustainable transport	1	1	1	3	1	1	1	1	1	1	6	9	1	1	2	1	1	1		3	5	14
Exchange of practices/better coordination		0015.1	1	1		1. 1		1	1		2	3	1	1	2	1		1		2	4	7

Source: Author, Kaiserslautern, 2017, based on the named policy documents.

#### X.2 Implementation of the TEN-T and ETC Policy in soft spaces

# X.2.1 Strategies and objectives of the TEN-T priority projects and core network corridors

#### TEN-T priority projects (2007-2013)

Table 78: List of the priority projects described beneath						
Railway axis Berlin-Verona/Milano-Bologna-Napoli-Messina-Palermo						
High-speed railway axis Paris-Bruxelles/Brussel-Köln-Amsterdam-London						
High-speed railway axis of south-west Europe						
Betuwe line (2007)						
Railway axis Lyon-Trieste-Divača/Koper-Divača-Ljubljana-Budapest-Ukrainian border						
Motorway axis Igoumenitsa/Patra-Athina-Sofia-Budapest						
Multimodal axis Portugal/Spain-rest of Europe						
Railway axis Cork-Dublin-Belfast-Stranraer (2001)						
Öresund fixed link (2000)						
Nordic triangle railway/road axis						
UK/Ireland/Benelux road axis						
West coast main line (2009)						
Freight railway axis Sines-Madrid-Paris						
Railway axis Paris-Strasbourg-Stuttgart-Wien-Bratislava						
Rhine/Meuse-Main-Danube inland waterway axis						
High-speed rail interoperability on the Iberian peninsula						
Fehmarn Belt railway axis						
Railway axis Athina-Sofia-Budapest-Wien-Praha-Nürnberg/Dresden						
Railway axis Gdansk-Warszawa-Brno/Bratislava-Wien						
Railway axis Lyon/Genova-Basel-Duisburg-Rotterdam/Antwerpen						
Motorway axis Gdansk-Brno/Bratislava-Wien						
Railway/road axis Ireland/United Kingdom/continental Europe						
Railway axis of the Ionian/Adriatic intermodal corridor						
Inland waterway Seine-Scheldt						
Source: Author, Kaiserslautern, 2017 based on European Parliament and Council of the European Union 2004, 30						

Source: Author, Kaiserslautern, 2017 based on European Parliament and Council of the European Union 2004,

#### PP1: Railway axis Berlin-Verona/Milano-Bologna-Napoli-Messina-Palermo

Priority Project 1 aims to improve a railway connection between Berlin and Palermo (see Figure 128). The project has been associated with a European Coordinator since 2010 who coordinates the project's implementation across borders. The most important sub project was the completion of the Brenner cross-border section between Munich and Verona, including the Brenner Base Tunnel because it was considered to be a major bottleneck for the completion of the whole track. This section is to be completed and entered into service in 2026. A cross-border section being part of the Brenner section is the German-Austrian section between Munich (DE) -Rosenheim (DE) - Kiefersfelden (AT) - Kufstein (AT) - Kundl (AT) were agreements have been signed in 2012 to implement this section. The investments in the track shall lead to the modal shift from road to rail by making it more efficient and allowing a higher capacity. Additionally, environmental challenges caused by the transport especially in the Alps shall be combated (European Commission, DG Move, and INEA 2012, 10).



Besides the Brenner section, also country internal investments have been taken to complete the whole track. These however, will not be presented in detail because of their low relevance for this research project which focuses on cross-border transport. For the funding period 2007-2013 approximately one billion Euros were spent to reach this project's aims (ibid., 10). Through the transport planning across borders four cooperation bodies have been established respectively involved in the transport development (ibid., 18):

- Austria-Italy Intergovernmental Commission (CIG): Planning and construction of the Brenner Base Tunnel
- Brenner Corridor Platform (BCP): involves Italy, Germany and Austria, five regions and the rail infrastructure managers. 10 working groups focus on specilized fields that are relevant for the Brenner section.
- Aktionsgemeinschaft Brennerbahn Communità d'azione ferrovia del Brennero (AGB-CAB) involves the regions and provinces integrated in the Brenner Section with the respective chambers of commerce. It shall facilitate the communication between the partners but also with the European Commission and make the investments beneficial for the inhabitants and industries.
- Alpine Convention: The Alpine countries established a joint protocol in the field of transport in which the countries agree to foster environmental friendly and sustainable transport

In 2012 it was stated that this rail track is to be integrated to the new corridors *Helsinki – Valetta* and *Warszawa-Berlin-Amsterdam/Rotterdam-Felixstowe-Midlands* in the coming funding period as designated by the new TEN-T guidelines (ibid., 10).

#### PP2: High speed railway axis Paris-Brussels-Köln-Amsterdam-London

This priority project focused on the establishment of a high speed railway connection between large cities in the European core area as attractive alternative to road and air transport. Additionally, it shall



Source: European Commission, DG Move, and INEA 2012, 22 offer the opportunity of intermodal air and rail transport and better link the airports via rail (ibid., 26).

The cross-border sections were problematic because of different national equipments, however, the main projects were implemented in 2012 and only minor investments were to be done. The Buschtunnel connects Aachen and Liège and was a bottleneck before it was enlarged with a second track as part of the priority project. The Channel Tunnel connects the UK (Dover) with France (Calais). It is the only possibility for trains operating between the UK and the European mainland. Besides pure train traffic it offers as well a roll-on/roll off vehicle transport. Furthermore, other rail tracks between the countries were modernized which have minimized the travel time. Additionally, other sections within the Member States were expanded. (ibid.,

26)

#### PP3: High speed railway axis of southwest Europe

In the Mediterranean branch the freight traffic between the port of Barcelona and Lyon as well as Toulouse was to be improved. In 2013/14 the signalling systems between the countries shall be

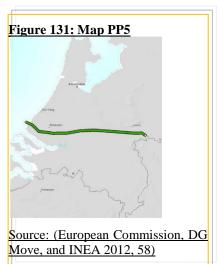


harmonized to further contribute to lower costs of operation. Additionally, a seamless and fast cross-border passenger transport between Perpignan and Barcelona was to be ensured by investments into the Spanish infrastructure. For this purpose two tunnels were established between Figueres and Perpignan. In the Atlantic branch, the last mature subprojects are the border sections. Here the section between Irun and Hendaye shall be better connected via rail. Environmental and safety concerns shall be met. The aim of the Iberian branch was, amongst others, to develop a rail freight corridor which links Portugal, Spain and France. One subproject is the cross-border section Caia (PT) – Badajoz (ES). Further country internal projects were developed such as new stations, better tracks, ERTMS signalling systems, etc. (ibid., 37) PP3 shall be integrated with PP19 in the Mediterranean Corridor in the funding

period 2014-2020. Some of its tracks (Atlantic and Iberian branch) shall become part of the Atlantic Corridor (ibid., 36).

#### PP5: Betuwe Line

PP5 is a rail freight corridor between the port of Rotterdam with the Dutch/Gernan border in the east. It is part of PP24: the railway axis between Lyon/Genoa-Basel-Duisburg-Rotterdam/Antwerp. The expansion and upgrading of the cross-border section between Emmerich (DE) and Zevenaar (NL) was to be implemented until 2013. Besides that also upgrading of the Dutch tracks and the extension of the harbour have been fostered (ibid., 60).



#### PP6 Railway axis Lyon-Trieste-Divača/Koper-Divaca-Ljublijana-Budapest-Ukrainian border

This priority projects connects the Iberian peninsula with the Ukraine via France, Italy, Slovenia and



Hungary and focuses on a rail connection. The track crosses the Alps between Lyon and Turin. It shall link urban hubs and lead to modal shift from road to rail and thus contribute to a lower environmental harm of the sensitive mountain regions. The project has been supported by a European Coordinator (ibid., 64).

Two tunnels were to be established and upgraded in two cross-border section between Lyon (FR) and Turin (IT) as well as Trieste (IT) and Divača (SI). The pace of implementation has shown to be very slow because of a strong public opposition and empty coffers. In the Italian-Slovenian cross-border section no credible train connection existed. Between Hodoš (SI) and Boba (HU) lies the third cross-border section of the priority project. Slovenian parts of that section were to be electrified and upgraded until 2015 (ibid., 64).

The project is involved in two transnational groupings of cross-border sections:

- Lyon-Turin Corridor Platform (CPLT) which involves all concerned public focussedities of different levels, railway managers and operators and other interested stakeholders.
- **EEIG** between Italy and Slovenia (decided to be established in 2012).

Many parts of the project have not been implemented so far and fell behind their schedule (ibid., 64).

#### PP7: Motorway acis Igoumenitsa/Patra-Athina-Sofia-Budapest

This priority projects invest in the road network in South-East Europe to link the larger cities. Several

cross-border sections are to be improved: Promaxonas (GR) – Kulata (BG), Calafat (BG)-Vidin (RO) across the Danube, (RO) - (HU) (ibid., 77).

Initially, the project focussed on the establishment and upgrading of Greek motorways but was extend to neighbouring new Member States in the newer time. Since then one route links Thessaloniki with Sofia (BG) and Budapest (HU), the other connects Budapest (HU) with Bucharest (RO) and Constanta (RO). The overall aim is to reduce the travel times, make the transport more reliable and safe and thus contribute to economic growth. Furthermore, the countries shall be connected better to the rest of the EU and other non-EU neighbouring countries. The upgrading shall happen with a minimized environmental impact (ibid., 77).

The implementation of some sections is not expected to happen until 2020 because the cooperation between some countries is



missing and national priorities are followed instead of the European priorities. The cross-border section between Greece and Bulgaria was fully implemented. The bridge between Bulgaria and Romania was said to be under construction and the section between Romania and Hungary was expected to be implemented until 2013. Besides these cross-border section, national roads were upgraded as well as tunnels and bridges built (ibid., 77).





PP8 aims at linking Portugal and Spain better to the rest of the EU. Road, rail and air transport and their linkage also to maritime transport are to be upgraded. Additionally, the Spanish and Portuguese transport systems are to be connected. Here the cross-border sections between Norte-Castilla y Leon; Norte- Galicia and Algarve-Andalucía. Especially the railway lines are to be upgraded and some established (e.g. between Faro (PT) and Huelva (ES). Also the cross-border connection between Salamanca and France shall be upgraded which is in line with **PP3**. Additionally, overlaps with **PP19** exist (high speed rail line between Vigo and Porto). The rail network shall become an attractive alternative to road transport (ibid., 83).

Three strongly used highways shall be upgraded between Lisbon-Valladolid-Irun/Hendaye; La Coruna-Lisbon and

Sevilla-Lisbon. In addition, the airport of Lisbon is to be renewed. In the next funding period the priority project will become part of the Atlantic Corridor together with PP3 (ibid., 83).

#### PP9: Railway axis Cork-Dublin-Belfast-Stranraer

The railway axis that connects Northern Ireland with Ireland and Scotland was to be upgraded and travel times reduced for both, freight and passenger transport. The railway connection between Dublin and Belfast was one of the first 14 priority projects defined in 1996. Therewith it was to be contributed to a modal shift from road to rail. Additionally, the ferry link between Northern Ireland and Scotland was to be improved to connect the island of Ireland to other parts of the EU. **PP26** also improved the connection in Northern Ireland. The project implementation increased the transport between the two countries as well as tourism. Additionally, it was beneficial for the economies of the two countries. The project was implemented in 2001 (ibid., 91).



#### PP11: Øresund fixed link

The priority project 11 focused on the establishment of a combined bridge and tunnel between Malmö (SE) and Kopenhagen (DK) and was to remove an important bottleneck for the EU transport system. The project links the Northern Countries through PP12 (Nordic Triangle) with PP20 (Fehmarn Belt) and with Central Europe. The bridge contains rail and road tracks and lead to the establishment of cross-border transport services and increased cross-border businesses. The aim was to develop a common housing and labour market in the cross-border Øresund region. The transport services across the bridges are available through an integrated ticket system between Sweden and Denmark. The commuter traffic has grown. The construction should be as environmentally friendly as possible. The bridge and infrastructure is established, still the capacity of the connections is to be enlarged (European Commission and INEA 2013, 98).



#### PP12: Nordic Triangle railway/road axis



PP12 aims at multimodally linking the Swedish and Finish capitals by road and rail for freight and passenger transport and improve the connections to Norway, Russia, the Baltic States and central Europe. Also port and airports in the countries are to be interlinked. Border sections exist on the road between Norway and Sweden including the Swedish cities Trelleborg, Malmö and Gothenburg as well as Örebrö-Stockholm-Kapellskär; and between Finland-Russia: Helsinki-Vaalimaa. Rail border sections are to be improved across borders between Sweden and Norway: Stockholm-Katrineholm-Laxå-Charlottenberg; Malmö-Gothenburg-Kornsjö; and Finland and Russia: rail tracks between Turku, Helsinki, Lahti and Vainikkala at the Russian border. In general, the tracks are to be expanded and upgraded. Besides that country internal upgrades are to be realized. The project is interconnected with PP11, PP20

and PP27 as well as corridors in its vicinity. The tracks are to be implemented by 2018 (ibid., 106).

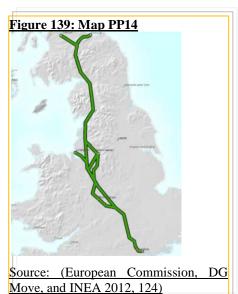


#### PP13: Road axis United Kingdom/ Ireland/ Benelux

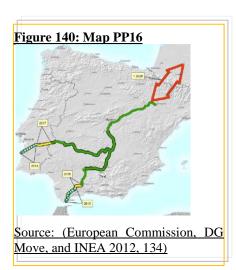
This priority project shall improve the road connections between the UK, Ireland, the Benelux countries as well as central Europe in general. However, the investments focus on the two islands. New roads are to be constructed, others upgraded. Furthermore, safety shall be enlarged and environmental harm as well as travel times reduced. Waterway transport modes like ferries are also relevant to connect the islands. The roads shall connect the English and Scottish ports. The amendments shall also support PP9. A road between Northern Ireland and Ireland which links the most important cities and its cross-border section are to be expanded (European Commission, DG Move, and INEA 2012, 114).

# PP14: West Coast Main Line

Priority project 14 solely invests in the UK's upgrade of the passenger and freight rail network which links the most important agglomerations. In general it should make rail transport more attractive compared to other modes. By the investments also international connections between Ireland and the UK as well as continental Western Europe were to be enhanced. However, no cross-border transport investments were taken. The project was fully implemented in 2013 (ibid., 126).



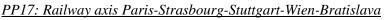
#### PP16: Freight railway axis Sines/Algeciras-Madrid-Paris



This priority

project aims at upgrading and harmonizing the freight railways between two ports in Spain and Portugal and linking them to central Europe. Besides the port, logistical platforms in the two countries are to be interconnected up to Madrid and Zaragoza. To link the railway tracks to Central Europe a freight rail tunnel across the Pyrenees is to be established to access the French network. The connections are established straighter, shall reduce travel times and enlarge the operation of trains. Some sections are shared with PP3. Cross-border connections exist between Sines-Elvas (PT) - Badajoz (ES) with the defined cross-border section: Caia (PT)-Badajoz (ES) whose implementation is delayed and the crossing of the

Pyrenees between Spain and France: Huesca-Canfranc (ES) – Pau (FR). The latter line is to be electrified and modernized. Tunnels are expected to be constructed. For that reason an EEIG was established in 2010. The revitalization of the train track shall contribute to modal shift. As part of the PP studies on potential routes were carried out. However, only the Spanish part of the Pyrenees crossing can be financed through the priority project. The French part might be implemented as part of PP3 (ibid., 136).





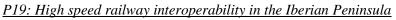
PP17 invests in a railway axis between densely populated parts of France, Germany, Austria and Slovakia from East to West and is supported by a European coordinator. It is focused on freight and passenger transport. In 2006 the transport ministers of the countries concerned signed a declaration of intent to develop the railway axis. In addition, three bilateral agreements were signed at the different cross-border sections. Three cross-border sections are to be improved: Strasbourg (FR) – Kehl, Appenweier (DE); Munich-Salzburg and Vienna (AT) - Bratislava (SK). Bridges are to be established across the border-rivers Rhine (Strasbourg-Kehl) and Saalach (Freilassing-Salzburg). In the Slovakia-Austria cross-border section some works have been delayed because of feasibility discussions and reflections on the TEN-T

Strasbourg-Danube corridor which additionally involves Hungary. However, also the German crossborder sections were said to be behind schedule. Besides, country internal tracks were to be upgraded and expanded. Among others, the Stuttgart train station was to be renewed which was connected with strong public oppositions. Additionally, further bridges and tunnels were to be constructed or upgraded. Besides the adoption of parts of the project to the Strasbourg (Rhine)-Danube Corridor, the tracks between Paris and Strasbourg were to be adopted by the Lisbon-Strasbourg (Atlantic) Corridor. By 2050 the most important airports should be connected to the rail network (ibid., 144).

#### PP18: Waterway axis Rhine/Meuse-Main-Danube

PP18 focuses on a waterway axis from Rotterdam to the Black Sea through the Rhine, Meuse, Main and Danube rivers. The navigation was to be improved. Additionally, the transport mode should become more attractive and competitive. The developments were coordinated with environmental groups in the Danube section. The Danube Strategy has also had a decisive impact by defining priority areas. For the cross-border section of the Danube between Romania and Bulgaria the two countries prepared a Memorandum of Understanding. In Lanaye (BE) which borders the Netherlands a common lock was to be established. Besides that also other country internal subprojects have been implemented (ibid., 162).







PP19 focuses its investments on high speed rail tracks within Spain. However, it is interconnected with PP16 which contains a cross-border connection through the Pyrenees and thus would connect Huesca and Zarragoza (ES) to the rest of the EU. Additionally, Ponte de Lima (PT) and Vigo (ES) are another cross-border section which shall be improved. Therewith it shall connect PP8 and PP3. Besides a renovations of stations, a cross-border ticketing system shall be introduced (ibid., 43).

The freight corridors of PP19 shall be integrated with PP3 in the Mediterranean Corridor in the funding period 2014-2020 (ibid., 36).

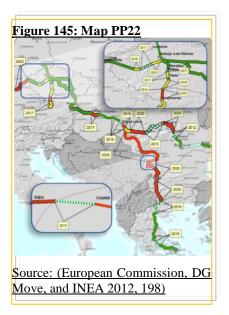


# PP20: Railway axis Fehmarn Belt

The Fehmarn Belt railway axis connects Denmark with Germany and the residual Europe. It establishes a faster alternative to an existing ferry link between Rødby (DK) and Puttgarden (DE). The railway track should be established together with a road connection and be used of freight and passenger transport. Construction was expected to take place between 2015 and 2021. Germany and Denmark signed a treaty on the establishment of the cross-border section. Besides that other railway tracks were to be improved within Denmark and Germany. PP20 extends PP11, i.e. the Øresund crossing and the Nordic Triangle (PP12) (ibid., 172).

## PP22: Railway axis Athina-Sofia-Budapest-Wien-Praha-Nürnberg/Dresden

This priority project focuses on a very complex railway network crossing seven Member States (GR, BG, RO, HU, AU, CZ, DE). It is supported by a European Coordinator. The aim of the project is to link

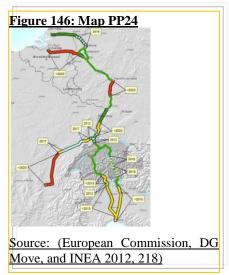


Central and Eastern Europe to the North and Baltic Sea in the long range. The implementations of the cross-border sections of the network have generally been delayed. The project fostered the establishment of coordination and exchange platforms for the Member States involved and especially between Greece, Bulgaria, Romania and Hungary. PP22 interfaces in Vienna with the railway axis of PP17. Inside the involved countries upgrades of the rail infrastructure have been conducted. However, the crossborder sections are also very relevant: First, between Vidin (BG) and Calafat (RO) a bridge across the Danube is to be established and the operation of the bridge needs to be clarified. Additionally, it should be ensured that the bridge is connected to existing rail tracks. Second, the cross-border section between Nürnberg (DE) and Prague (CZ) are to be improved. The implementation is hampered by diverging national interests. However, the linkage of Dresden (DE) and the Czech border is supported by the German government. Third, the section between Kulata (BG) and Promachonas (GR) and the link between Curtici (RO) and Lököshaza (HU) shall regularly exchange information across borders and develop common projects. Studies shall be implemented to develop common strategies. Other cross-border sections were evaluated to be more advanced (ibid., 200).

#### PP24: Railway axis Lyon/Genoa-Basel-Duisburg-Rotterdam/Antwerp

This priority project also aims at improving a passenger and freight railway axis from two ports at the

North Sea to the Mediterranean Sea in the south. It crosses several east-west axes like **PP4**, **PP6** and **PP17** and connects the cities Rotterdam (NL) and Antwerp (BE) with Duisburg, Düsseldorf, Cologne, Frankfurt, Mannheim, Karlsruhe (DE), Strasbourg (FR), Freiburg (DE) and with either Lyon (FR), Basel, Bern (CH) and Genoa (IT) or Milano (IT). Important cross-border sections exist between Zevenaar (NL) - Emmerich (DE) and Karlsruhe (DE)-Basel (CH). Additionally, a part of the historic rail line between Belgium and the Netherlands -Roermond (NL) and Dalheim- Rödgen (DE) was to be put into practice again to complete the track. This process was discussed strongly with a main focus on the division of costs. The track is to be electrified. Between Mulhouse (FR) and Mühlheim (DE) a so far regional cross-border transport rail track is to be upgraded to link PP24 with the high speed Rhine-Rhône rail



line. However the French and German investment will were diverging. Germany favours another crossborder connection close to Kehl. PP24 contains also the track fostered by **PP5**. Through the Alps tunnels have to be established (ibid., 220)

#### PP23: Railway axis Gdańsk-Warsaw-Brno/Bratislava-Vienna

Priority project 23 deals with the development of a north-south railway axis from Gdańsk (PL) via Warsaw (PL), Brno (CZ) to Bratislava (SK) and from Katowice to Vienna (AT). The existing railway tracks are to be upgraded and expanded. In addition container terminals were to be established to

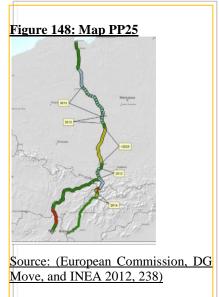


<sup>(</sup>ibid., 210).

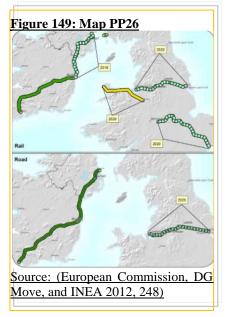
contribute to intermodal transport. It supports both passenger and freight transport. Operation speeds are to be increased, common standards defined and with a higher attractiveness the rail connection shall contribute to a modal shift. It also contributes to the PP25 and 27. Before the definition of this axis as a TEN - T priority project it was part of the pan-European transport corridors. Besides national improvements, especially three cross-border sections are to be improved between Katowice – Zebrzdowice (PL) and Petrovice (CZ); Zwardoń (PL) and Myto (SK) as well as between Breclav (CZ) and Vienna (AT). The project was to be fully completed until 2016. In 2006 it was decided to establish the Baltic-Adriatic Transport Corridor comprising PP23 and PP25 which shall be prolonged to Northern Italy

#### PP25: Motorway axis Gdańsk-Brno/Bratislava-Vienna

This priority projects supports in addition to PP23 the connection between Gdańsk (PL) and Vienna (AT) and Bratislava (SK) from north to south and thus involves Poland, the Czech Republic, Slovakia and Austria. This project focuses on the expansion of the motorway axis. Aims are the reduction of congestions, higher safety and the support of trade. Additionally, the improved infrastructure shall lead to economic growth. Cross-border sections are: Český Těšín and the Polish border; Mikulov (CZ) and Austria which is defined as Natura 2000 region as well as between Zwardoń (PL) and Slovakia. In the latter section the investments were considered not to be feasible in Slovakia whereas the Polish track was already implemented. Also here, the highway track was to be extended to Italy and grouped with PP23 to the Baltic-Adriatic Corridor in the following funding period.



#### PP26: Railway/road axis Ireland/United Kingdom/continental Europe



PP26 aims at establishing missing links between Ireland, the UK and continental Europe by supporting the expansion of railways and roads. The project is complemented by **PP9** and **PP13**. Travel times shall be reduced and the capacity enlarged to cope with larger transport flows. The biggest cities are to be linked and a driver information system is to be implemented. Another intersection exists with **PP14**. Only one cross-border road section was to be established between Dundalk (IRE) and Newry, Northern Ireland (UK) (ibid., 250)

<u>PP29: Railway axis of the Ionian/Adriatic Intermodal corridor</u> Priority project 29 solely invests in railway connections within Greece. However, therewith Greece shall be better connected by rail with its surrounding countries and the sea. Sea and rail transport are to be interlinked. As the project does not foster cross-border sections, it is not investigated further in the following (ibid., 274).



PP30: Inland waterway axis Seine-Scheldt



This project consists of an inland waterway axis between the French river Seine and the Scheldt river through France and the Benelux countries. It therewith links the Seine with Meuse and Rhine and Atlantic ports with the inland. This connection has a high economic importance for the bordering regions. For the interlinkage of the waterways between the different countries an intergovernmental committee and an EEIG have been established. The Seine-Nord Europe Canal borders river sections in Flanders and Wallonia. Delays in the upgrading in one country have lead to delays in the other. The canal shall be fully in place in 2019 (ibid., 165).

#### Table 79: Objectives of the priority projects

Table 79: Objectives of the priority p	PP	PP	PP	PP	PP	DD	PP	PP	DD	PP	DD	DD	DD	DD	PP	PP	PP	DD	DD	PP	PP	PP	PP	PP	PP	DD	DD	
Objectives	PP 01	PP 02		PP 04		PP 06	PP 07	PP 08	PP 09	11	PP 12	PP 13	PP 14	PP 16		18	19	PP 20	PP 22	23	24	25	26	27	28	PP 29	PP 30	Sum
Transport infrastructure network	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27
Remove barriers, improve efficiency	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27
Linking TEN-T and secondary networks																												0
Relieve routes/fighting congestion								1		1			1									1						4
Intermodality/interoperability	1	1		1	1	1		1		1	1	1		1	1	1		1					1	1		1		16
Intelligent transport systems			1																				1					2
Freight corridors	1		1		1									1						1		1						6
New technologies/innovations (research)			1																									1
Improving mobility of freight	1		1		1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24
Improving mobility of passengers	1	1	1	1		1	1	1	1	1	1	1	1		1		1	1	1	1	1		1	1	1	1		22
Accessibility of remote areas				1			1	1		1		1		1			1						1		1	1		10
Connecting neighbouring/new member states	1	1	1	1	1	1	1	1	1	1		1		1	1	1	1	1	1	1	1		1	1	1			22
Cross-border infrastructures	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1		1	25
User-friendliness		1	1	1			1		1	1				1			1	1		1			1		1			12
Transport services		1	1	1		1		1	1	1	1						1								1			10
(Urban) public and soft mobility																												0
Transport safety			1				1					1										1						4
Cross-border services		1	1	1		1		1	1	1	1						1								1			10
Environmental and sustainability issues	1	1	1			1	1	1	1	1		1	1	1		1						1		1	1			15
Alternative modes of transport	1	1		1	1	1		1	1	1			1	1	1	1	1	1	1	1	1			1	1		1	20
Alternative fuels/climate change	1	_		_		_		_					_	_	_									_	_			1
Minimising environmental harm	1		1			1	1			1		1				1						1		1				9
Sustainable transport	_						_			_						_						_						0
Exchange of practices/better coordination	1														1	1		1	1	1	1			1				8
Source: Author Kaiserslautern 2017																												

Source: Author, Kaiserslautern, 2017.

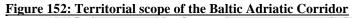
Table 80: List of the core network corridors described beneath								
Name of the corridor	Countries involved	Transport modes						
Baltic Adriatic corridor	PL, CZ, SK, AT, SI, IT	Sea, Road, Rail, Air						
Mediterranean corridor ES, FR, IT, SI, HR, HU Rail, Road, Sea, Air, I								
Orient East Med corridor	DE, CZ, SK, AT, HU, RO, BG, GR,	Rail, Road, Air, IWW*						
	(TIR, CY)							
Rhine Alpine corridor	Rhine Alpine corridorBE, NL, DE, CH, ITAll modes							
Rhine Danube corridorBG, RO, SK, HR, AT, HU, CZ, DE,All modes								
FR, (RS, BA, MD, UA)								
Scandinavian Mediterranean FI, SE, NO, DK, DE, AT, IT, MT Rail, Road, Air, Sea								
Source: Author, Kaiserslautern, 2017 based on Corridor Work Plans of the Core Network Corridors from 2015.								

# TEN-T core network corridors (2014-2020)

#### Baltic Adriatic Corridor

The Baltic Adriatic Corridor stretches from the Polish coast at the Baltic Sea through the Czech Republic, Slovakia, Austria and Slovenia to Italy (see **Figure 152**).





# Source: Bodewig 2015, 3.

It shall contribute to a more efficient and safer multi-modal freight and passenger transport between the Baltic and Adriatic Sea and its ports. The interoperability shall be improved by implementing EU wide traffic management systems like ERTMS. New transport flows and socio-economic growth are to be created by the development of the corridor also in the neighbouring areas. At the same time environmental friendly and sustainable transport modes are to be promoted and sensitive areas protected.  $CO_2$  emissions are to be reduced. To enlarge the benefits of the corridor it shall be integrated in the domestic development planning strategies and vice versa. Therewith, long distance traffic shall be

interconnected with regional and local traffic and infrastructures in the urban nodes. It shall increase the accessibility of all users. The corridor links 13 cities and airports, 10 ports and almost 30 rail-road terminals via road and rail connections. Thus, the corridor includes all transport modes except of inland waterways. These modes, especially rail and sea transport, are to be interconnected better (ibid., 1).

The railway infrastructure is almost complete. Only two sections within Austria need to be constructed which both require a tunnel. However, the tracks are not continuously as fast as possible, the rolling stock has limited lengths in some countries and the axle load is not as high as possible in some countries. These challenges exist only in the new Member States, Italy and Austria almost fulfil the EU requirements. Also, a cross-border section between Wien (AT) and Bratislava (SK) is not electrified so far. Besides that, the countries operate with different power systems which hamper the interoperability between the countries. Additionally, except of the Austrian tracks, the ERTMS system has not been implemented so far. Furthermore, the infrastructure at the nodes of the tracks needs to be upgraded in many cases. The road infrastructure needs to be upgraded to fast tracks especially in Poland. Additionally, parking areas need to be constructed. In the other parts of the corridor the road network is almost in place. The ports are connected to the rail and road network very well, investments should improve the 'last mile'-accessibility (e.g. by increasing the standards and capacities). The airports of the corridor are all accessible via road, in some cases they shall also be connected with the rail network. Besides that, some new rail-road terminals are to be established. Besides these infrastructural requirements, also administrational issues for cross-border freight and the implementation of crossborder projects are to be simplified (ibid., 6).

As a North-South corridor it is crossed by five other core network corridors North-Sea Baltic, Orient-East-Med, Rhine-Danube, the Mediterranean and the Scandinavian-Mediterranean Corridor (ibid., 4).

The corridor contains many cross-border sections. Missing links between the Member States shall be reduced. 13% of the budget is to be spent for cross-border projects. For rail transport six sections shall be especially upgraded because they are considered as bottlenecks (ibid., 16):

- Opole (PL) Ostrava (CZ): the Polish side needs to be modernized until the Czech border ti increase the speed of operation.
- Katowice (PL) Ostrava (CZ): two Polish rail tracks need high investments, minor investments need to improve the speed on the Czech side.
- ♦ Katowice (PL) Žilnia (SK): the Polish single track needs to be improved whereas on the Slovak side the ERTMS system needs to be implemented. However, the application of the ERTMS system has not been planned yet.
- Wien (AT) Bratislava (SK): the rail tracks on both sides need to be electrified but follow different implementation horizons.
- Graz (AT) Maribor (SI): the railway section shall be refurbished and ERTMS shall be implemented on the Slovenian side. However, no clear implementation time has been decided.
- Trieste (IT) Divača (SI): this railway section is currently under ongoing-studies and the application of the ERTMS system has not been planned yet.

Additionally, the following two cross-border road sections shall be upgraded to motorways or express ways:

- Katowice (PL) Žilnia (SK): on both sides the existing roads need to be upgraded to express roads.
- Brno (CZ) Wien (AT): the motorways need to be completed until the border on both sides, however, the Czech implementation is delayed.

Besides these sections, national bottlenecks exist as well. For cross-border sections dialogue platforms and working groups shall be established to coordinate the implementation of common infrastructure.

The working programme of the corridor calls to make use of the benefits of bottom-up initiatives in the field of cross-border transport funded by European Territorial Cooperation and create synergies (ibid., 31).

# Mediterranean Corridor (former PP3 and 6)

The corridor leads from West to East across the Spanish and French coast and ports across the Italian Alps, Slovenia, Croatia and Hungary to the Ukrainian border. Nine inland ports are involved in the network and connected via the rivers Rhône and Po (Brinkhorst 2015, 1).





Source: European Commission and DG Move 2015a.

The main aims are to improve the transport connection in the Southern parts of the EU, enlarge the modal share of rail instead of road, especially in the sensitive areas Alps and Pyrenees and improve the high-speed train connection of its urban nodes. Additionally, the investments in the corridor shall contribute to the economic growth and competitiveness of the countries involved and improve the connection to third countries (Brinkhorst 2015, 1).

The main bottleneck of the corridor is the rail link between Lyon (FR) and Turin (IT). Besides that, the cross-border sections between Slovenia and Hungary as well as the connections to Croatia need to be upgraded. Different gauge systems also hamper a smooth transport across the Spanish borders. Besides that, country internal railway improvements need to be done. Furthermore, the Spanish and French ports need to be connected with the other transport modes (ibid., 1).

The rail network needs to be upgraded in Spanish and Slovenian sections in which it still needs to be electrified. However, 90% of the corridor has been electrified so far but with different voltages. The gauge of Spain differs as well from the other countries and needs to be adapted. The ERTMS system, maximum train length, minimum speed and axle load are not applied in several parts of the corridor. This shall be changed to contribute to a higher interoperability. The road network does contain small sections in Spain, Italy and Hungary which have not been express roads or motorways so far. Small improvements are to be made in the rail and road connection of the ports. Only few inland waterway sections in Italy need to enlarge their width. Except one all airports miss a high-speed rail connection. The capacity of all urban nodes shall be enlarged to remove bottlenecks and the 'last mile' infrastructure shall be upgraded (ibid., 3).

Six cross-border sections are in the focus of the corridor development (ibid., 13):

Figueres (ES) – Perpignan (FR): despite an existing high-speed rail track, it is operated only few times a day. The track is challenged because of three different voltages and signalling systems and missing

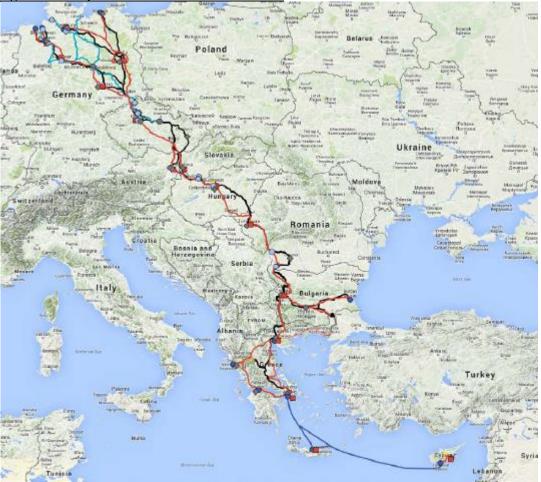
freight locomotives which can run across all sections so that they have to be pulled by passenger locomotives.

- Lyon (FR) Turin (IT): a railway tunnel needs to be established to contribute to the modal shift and the capacity of the hubs Lyon and Turin needs to be enlarged. The implementation of this section is of highest importance for the whole corridor.
- ♦ Trieste (IT) Divača (SI): the railway track needs to be upgraded to be able to accommodate the future traffic.
- Slovenia Hungary: the capacity of the connection needs to be enlarged.
- Slovenia Croatia: the rail connection needs to be upgraded because of low speed and maximum train length.
- Botovo (HR) Gyekenyes (HU): the cross-border rail line needs to be upgraded as well in order to be in line with the EU regulations.

The corridor is crossed by the Atlantic, the North-Sea Mediterranean, the Rhine-Alpine, the Scandinavian-Mediterranean, the Baltic-Adriatic, the Rhine-Danube and the Orient-East Med Corridor, thus all core network corridors except of the North-Sea Baltic Corridor (ibid., 1).

# Orient East Med Corridor (PP7, 21, 22, 23, 25)

#### Figure 154: Map of the Orient East Med Corridor



Source: Grosch 2015, 3.

The Orient East Med Corridor connects nine Member States with different economic situations: seven can be supported by the Cohesion Fund. It connects the German ports Rostock, Hamburg and Bremen with the Bulgarian port of Burgas and the Greek ports of Thessaloniki and Piraeus and Cyprus through the Czech Republic, Slovakia, Austria, Hungary and Romania. A smooth transport is hampered in the northern parts of the corridor because of congestions, the transport infrastructure in the southern parts are not interoperable enough. The corridor comprises all transport modes: road, rail, the inland waterways, sea transport to Cyprus, and air transport. However, priority is to be laid on inland waterway

and rail transport, more transport is to be transferred to these two modes. Additionally, especially crossborder sections are to be upgraded or established (ibid., 1).

The connected ports are to be upgraded and made multimodal, furthermore the waterways shall link urban nodes with the ports. Large parts of the corridor have not complied with the EU regulations concerning the rail infrastructure (train length, axle load, speed, electrification and ERTMS) so far. The gauges, however, have a standard width. Three different voltage systems are applied in the different Member States. Most parts do not apply the European ERTMS standard system. These differences hamper a smooth cross-border transport and the interoperability and thus reduce the attractiveness of rail transport in comparison to the road. The quality of navigability in the corridor's inland waterway Elbe depends on the weather conditions and is thus unstable. The risk of low draught but also floods challenges the navigation and the environmental sensitive areas in the vicinity of the rivers. The other waterways also do not comply with all requirements. Alternative fuels have not been provided so far. The RIS system has been implemented so far in Germany and Czech Republic only. Greek ports have to improve their connections to the rail network. In general the hinterland of the ports should be better connected. Not all ports have applied traffic management systems. Several ports have to upgrade their capacity. Also here no alternative fuels have been offered but it is planned to do so in most ports in the future. Some sections (18%) of the road network are neither expressways nor motorways and thus bottlenecks. The provision of alternative fuels and other energy sources for road transport varies among the countries. Especially in Greece, Bulgaria and Romania, safe parking spaces need to be added. The existing road tolling systems should be harmonized to facilitate the cross-border transport. Several airports, especially those in urban centres, should improve their connection to the rail network. No alternative fuels for airplanes are provided at the airports. The environment should be protected. Therefore measures to minimize climate change should be taken. General aims are the contribution to European cohesion and the corridor's sustainability. Additionally, also the connection to non-EU countries should be improved (ibid., 2).

The improvement in the inland waterway Elbe is a cross-border project between Germany and the Czech Republic. In the rail infrastructure three cross-border sections are predominantly to be improved (ibid., 17):

- Dresden (DE) Praha (CZ): The capacity needs to be upgraded because of a frequent usage. A new fast line shall be established and the old track renewed.
- Brno (CZ) Austria Slovakia Győr (HU): A poor cross-border bridge and tunnel need to be renewed, as well as technical and capacity shortcomings in the vicinity of the borders should be removed.
- Békéscsaba (HU) Romania Kulata (BG) Promachonas (GR) Thessaloniki (GR): the interoperability needs to be improved on this section because of many different technical systems.

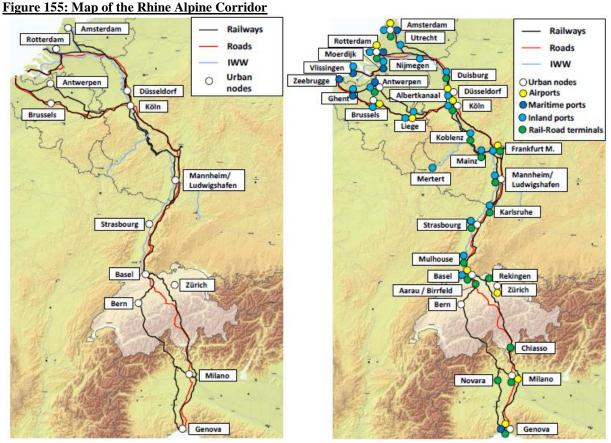
Additionally, it is recommended to establish a second rail track between Romania and Hungary (ibid., 25).

The corridor crosses and shares tracks with the Rhine-Danube, North Sea Baltic, Scandinavian-Mediterranean and Baltic Adriatic Corridor (ibid., 2).

# Rhine-Alpine Corridor (PP5 and 24)

The Rhine-Alpine Corridor connects the ports of Rotterdam, Amsterdam (NL) Zeebrugge and Antwerp (BE) at the North Sea with the Mediterranean Sea in the port of Genoa and therewith crosses economically strong and densely populated regions from the Netherlands, Belgium, Germany and Switzerland to Italy. Because of their importance for the inland waterways France and Luxemburg are also considered to belong to the catchment area of the corridor. The corridor incorporates all transport modes. The corridor has a high importance for freight transport, especially the railway infrastructure is considered to be advanced. However, the transport corridor shall be further upgraded by applying new

technologies and innovations such as information and intelligent systems. Because being highly used the corridor is challenged by congestions and environmental concerns especially in urban nodes. Furthermore, different domestic transport systems, low capacities, safety and the costs of preservation of the existing infrastructure are considered to be major problems of the corridor. Existing bottlenecks and missing links shall be reduced. At the same time the interoperability between the different national systems and intermodality shall be improved. Furthermore, the cross-border sections of the corridor shall be upgraded. As a further increase of transport is predicted for the future, the corridor shall become more sustainable among others by minimizing climate change and reducing the  $C0_2$  emissions. In addition it shall contribute to further economic growth (Palacio and Wojciechowsky 2015, 3).



Source: ibid., 6.

The corridor includes several urban nodes, inland and maritime ports and airports as well as rail-road terminals. The sea ports offer the opportunity of international links and shall be connected very well with the other transport modes on the corridor. The Rhine river is seen as most important inland waterway for freight of the whole corridor besides the rivers Main, Neckar and Moselle. The navigation on all rivers needs to be maintained. Rail transport of passengers and freight is a very relevant international transport means for the corridor. The rail network shall connect and access the sea ports and the trains can easily cross Switzerland. The existing multitude of intermodal platforms existing in ports, airports and rail-road terminals is decisive to contribute to a higher intermodality of the corridor. In general, the corridor mainly meets the EU requirements and is in a good shape compared to most other corridors. However, it needs to improve safety issues and minimize the noise pollution. Additionally, in the rail sector, especially the ERTMS deployment needs to be enlarged – particularly in cross-border sections -, the varying train length and speed in different Member States need some improvements and have hampered a smooth cross-border rail transport so far. The rail services shall be upgraded and travel times reduced. The road network needs to advance the provision of clean fuels

especially in Belgium, Switzerland and Italy. Furthermore, close to the national borders there is a lack of safe parking possibilities for trucks and different safety requirements for drivers which creates further bottlenecks. Congestions in urban nodes shall be prohibited. For inland waterways the draught as well as the height of bridges need to be increased. In some sections the capacity of locks and mooring places needs to be strengthened. Furthermore, river information services need to be applied and alternative fuels provided in the inland waterways. In general, the last mile connections of different transport modes shall be improved (ibid., 7).

Most cross-border freight flows in the corridor are moved through the inland waterways (54%) and road (34%). Only 12% of the goods are transported by rail. Passenger transport, however, mainly relies on road transport (87%) only 9% moves by rail and the residual part by air transport. In the inland waterway cross-border section at the Rhine river between the Netherlands and Germany close to Lobith (NL) the lock needs to be upgraded and the number of mooring places need to be increased (ibid., 10).

Prioritized rail cross-border sections are to be improved between

- Zevenaar (NL), Oberhausen and Emmerich (DE): the track shall be upgraded by renewing the existing infrastructure, bridges and by adding a track.
- Karlsruhe, Offenburg, Freiburg (DE) and Basel (CH): the capacity shall be enlarged by establishing additional tracks and tunnels.
- Chiasso (CH) Domodossola Milan Novara (IT): The capacity, services and accessibility of the railway shall be improved. Longer trains shall be used.

In addition, the speed on a rail track between Berneau - Visé (BE) and the German border shall be increased by investments. Furthermore, the connection between Simplon (CH) and the airport of Milan (IT) shall be upgraded (ibid., 14).

Furthermore, the road bridge in Weil am Rhein (DE) close to the French and Swiss border shall improve its capacity. Additionally, the accessibility of the Simplon pass between Italy and Switzerland is to be enlarged (ibid., 14).

The corridor intersects with three other core network corridors: North Sea Baltic, North Sea Mediterranean and Rhine Danube Corridor. The North Sea Baltic Corridor overlaps even six times with the tracks of the Rhine Alpine Corridor (ibid., 8).

Existing cross-border cooperations are to be maintained and new developed to better link transport corridor investments ant the implementation of projects with the regional development. Also the intersections with other corridors should be coordinated and benefits used (ibid., 20).

# Rhine Danube Corridor (PP 7, 17, 18 and 22)

The Rhine Danube Corridor connects the Black Sea (Black Sea Branch) and the Ukraine respectively Slovakia (Czech-Slovak Branch) through the Danube to central parts of the EU at the Rhine river (see **Figure 156**). It crosses several borders (see red lines in **Figure 156**) and thus involves the EU countries France, Germany, Austria, Slovakia, Hungary, Croatia, Romania and Bulgaria. Two Black Sea ports and several river ports of the Danube and Rhine belong to the corridor. Besides inland waterways all other modes of transport are included in the corridor as well and shall be integrated in a common interconnected intermodal and interoperable transport network. A peculiarity of this corridor is the spanning of the Danube across several non-EU countries (Serbia, Bosnia and Herzegovina, Moldova and the Ukraine), being an access point for these countries to the EU. Therefore non-European legislation has to be taken into account in the coordination of the corridor development as well. The Danube shall on the one hand be further upgraded to be used for transport flows and on the other hand its importance for the environment maintained. In general, the corridor shall contribute to European cohesion and the creation of a European transport network. Therefore, the accessibility of all regions

shall be improved, cross-border transport shall become more efficient and sustainable – especially  $CO_2$  emissions are to be minimized - and fulfil the mobility demand of the EU citizens (Peijs 2015, 1).

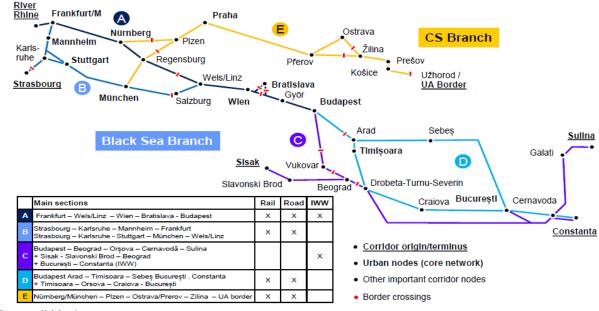


Figure 156: Map of the Rhine Danube Corridor

Most parts of the railway tracks are electrified and fulfil the maximum speed requirements of the EU except of some non-electrified sections in Germany and slow sections in Eastern Europe. The whole rail corridor is equipped with the same gauges. Safety is to be increased. Several sections in Hungary and Romania do not allow the maximum axle load. More than half of the train network does not comply with the maximum train length EU requirement and ERTMs is only applied in small sections of the corridor. The rail network needs to be enlarged to be able to shift capacities from road to rail. The railway and road connection of some ports needs improvements. Additionally, some ports need to increase their depth and the provision of alternative fuels. Intermodal platforms need to be added to several ports. Ports are said to be important access points of regions not being directly crossed by the corridor. The inland waterways shall be supplemented by the Danube-Bucharest Canal to complete a missing link. In the rivers Danube and Sava the minimum draught is not high enough. Fairway maintenance shall be done regularly and some locks need to be upgraded. The interoperability on the inland waterways shall be improved by a harmonization and upgrading of the river information systems. 22% of the corridor's roads are no express roads or highways and need to be upgraded. Especially cross-border sections lack technical standards although most cross-border transport flows for freight and passengers take place on the road. The roads through and around most transport nodes are congested and therefore need to increase their capacities. The offer of parking spaces is to be enlarged to meet future demands. Different domestic tolls hamper a smooth transport across borders. Some airports need to implement an offer of alternative fuels. The rail-road terminals shall further enlarge the access of other intermodal facilities. Intermodal transport information systems shall be applied and be accessible for the users and last mile connections shall be upgraded (ibid., 7).

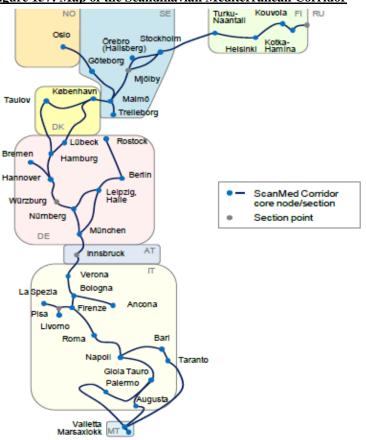
Important cross-border sections of the road corridor are (ibid., 14):

- ♦ Zlin (CZ) Beluša (SK): the EU technical standards are not met.
- Makó (HU) Csanádpalota (HU) Romanian Border: two more tracks and an emergency lane are to be established
- Mosonmagyaróvár Rajka Hegyeshalom (HU) Slovakian border: the motorway needs to be upgraded and enlarged.

Source: ibid., 4.

#### Scandinavian Mediterranean Corridor

The Scandinavian Mediterranean Corridor is a North-South transport axis which connects Scandinavia (Finland, Sweden, Norway and Denmark) through Germany, Austria and Italy to the Mediterranean Sea (Malta) (see **Figure 157**). It connects economically strong regions. The corridor comprises rail, road, air and sea transport. In this corridor more freight is moved via maritime transport than via road and rail (Cox 2015, 1).





Source: ibid., 3.

The rail gauge is the same in all countries except of Finland which is not a big problem because it is separated by sea from the other countries anyway. Some sections in Denmark and Germany still need to be electrified. Three different electricity voltage systems hamper the interoperability of the different national systems. Also the length and speed of trains as well as their maximum axle loads are not harmonized among the countries. The ERTMS has been implemented solely in Austria and Denmark so far. The road transport needs to be upgraded and fastened especially close to urban hubs because of congestions and the safety shall be enlarged, however, environmental harm of sensitive areas and CO<sub>2</sub> emissions need to be avoided. New technologies and information systems are to be applied and the vehicles' capacities improved. Furthermore, the offer of alternative fuels shall be promoted and sufficient safe parking spaces shall be provided. Some airports need to establish a connection to the rail network. The 25 ports of the corridor and the rail-road terminal mainly fulfil the EU requirements. Still, the ports should improve their hinterland connections, ensure their accessibility by ice-breaking tools and increase the offer of alternative fuels. The rail-road terminals should further increase their capacities. In general, the interoperability and multimodality shall be enlarged in the whole corridor to contribute to a sustainable development. (ibid., 5).

Cross-border sections to be improved are (ibid., 9):

- Kornsjø (NO) Öxerned (SE): a study on the rail connection needs to be conducted.
- Fehmarn Belt Fixed Link between Germany and Denmark: the rail-road tunnel shall be completed until 2021 and will reduce the travel times between the two countries.
- Ringsted (DK) Fehmarn (DE): the existing rail track shall be upgraded to a fast, electrified double track.
- Öresund railway line between Denmark and Sweden: the capacity is to be increased.
- ♦ Kolding Padborg (DK) Hamburg:
- Munich Rosenheim (DE) Kufstein Kundl Radfeld (AT): railway line and Brenner tunnel access shall be upgraded.
- Kiefersfelden (DE) Kufstein Schaftenau (AT): the rail tracks shall be expanded to increase the speed and capacity of the connection.
- Innsbruck (AT) Fortezza (IT): Completion of the **Brenner Base Tunnel** to enlarge the capacity and shorten travel times.
- Upgrading of the Brenner Train Station between Austria and Italy to increase the interoperability

It is recommended to increase cross-border cooperation and communication between the Member States involved by the creation of working groups which assist the coordinated implementation of cross-border projects (ibid., 24).

The corridor work plan calls the public sector to develop regulations and policies e.g. on infrastructure and vehicle usages to influence the citizens in their choice or policies to prevent environmental harm to ensure good living conditions despite increased transport flows for the residents of the corridor (ibid., 7).

Objectives	Atlan.	Baltic- Ad.	Med.	North S. Balt.	North S. Med.	Orient E. M.	Rhine Alp.	Rhine Dan.	Scan. Med.	Average (%)
Transport infrastructure network	1	1	1	1	1	1	1	1	1	100
Remove barriers, improve efficiency	1	1	1	1	1	1	1	1	1	100
Linking TEN-T and secondary networks		1	1	1	1	1	1	1		78
Relieve routes/fighting congestion				1	1	1	1	1	1	67
Intermodality/interoperability	1	1	1	1	1	1	1	1	1	100
Intelligent transport systems	1	1	1	1	1	1	1	1	1	100
Freight corridors	1	1	1	1	1	1	1	1	1	100
New technologies/innovations (research)	1			1	1		1		1	56
Improving mobility of freight	1	1	1	1	1	1	1	1	1	100
Improving mobility of passengers	1	1	1	1	1	1	1	1	1	100
Accessibility of remote areas	1	1	1	1	1			1		67
Connecting neighbouring/new member states	1	1	1	1	1	1	1	1	1	100
Cross-border infrastructures	1	1	1	1	1	1	1	1	1	100
User-friendliness	1	1	1	1	1	1	1	1	1	67
Transport services				1			1			22
(Urban) public and soft mobility				-			-			0
Transport safety		1		1	1	1	1	1	1	78
Cross-border services				1			1			22
Environmental and sustainability issues	1	1	1	1	1	1	1	1	1	100
Alternative modes of transport	1	1	1	1	1	1	1	1	1	100
Alternative fuels/climate change	1	1		1	1	1	1	1	1	89
Minimising environmental harm	1	1	1	1	1	1	1	1	1	100
Sustainable transport		1		1	1	1	1	1	1	78
Exchange of practices/better coordination		1		1	1	1	1	1	1	78

#### Table 81: Aims of the TEN-T Core Network Corridors

Source: Author, Kaiserslautern, 2017.

# X.2.2 Transport strategies and aims of ERDF funded cross-border regions (ETC)

# X.2.2.1 Cross-border cooperation (INTERREG A)

#### **INTERREG A Cooperation Programmes (2007-2013)**

# Table 82: List of the analysed cross-border region's cooperation programmes presented beneath

01       Austria-Czech Republic       26       Greece-Cyprus         02       Austria-Hungary       27       Greece-Italy         03       Austria-Italy       28       Hungary-Romania         04       Austria-Germany/Bavaria (Bayern-Österreich)       29       Hungary-Slovakia         05       Belgium-France (France-Wallonie-Vlaanderen)       30       Italy-France (Maritime)         06       Belgium-Germany-The Netherlands (Euregio Meuse-Rhin)       31       Italy-Slovenia         07       Belgium-The Netherlands (Vlaanderen-Nederland)       32       Italy-Slovenia         08       Czech Republic-Poland       33       Italy-Switzerland         09       Czech Republic-Slovakia       34       Latvia-Lithuania         10       Denmark-Germany (Fehmarnbelt-Region)       35       Lithuania-Poland         11       Denmark-Germany (Fehmarnbelt-Region)       36       Poland-Denmark-Germany-Lithuania-Sweden (South Baltic)         12       Estonia-Latvia       38       Poland-Slovakia       11         13       France-Belgium-The Netherlands-United Kingdom 40       Slovakia-Austria       16         15       France-Germany-Switzerland (Oberrhein)       41       Slovenia-Hungary       17         14       France-Gremany-Switzerland		Analysed cross-border cooperation regions 2007-2013									
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Source: Author, Kaiserslautern 2017.

# <u>01 Austria – Czech Republic</u>

The cross-border programme between Austria and the Czech Republic has an unbalanced transport system: Urban regions have a high accessibility for rail and road transport that is reduced strongly in peripheral and rural regions. Additionally, the cross-border infrastructure is insufficient. However, main infrastructure investments are made to improve supranational corridors. The crossing of the territory by these corridors is also a chance for development. Urban public transport is said to be efficient. Public transport across borders needs to be improved. The rail transport system needs to be upgraded in its services and infrastructure to become more attractive and environmental friendly. Safety and intelligent management systems should be applied. Furthermore multi-modal and logistical terminals need to be established. Three airports are situated in the region but their accessibility needs to be improved. Inland waterway transport is important because of the Danube river. Four efficient inland ports are available. The priority "Regional accessibility and sustainable development" includes the support and modernisation of the transport network and of the accessibility of the region. Especially the inner transport connection shall be improved and peripheral regions should be integrated. Both freight and

passenger transport is to be improved. The upgrading shall contribute to a higher sustainability and environmental friendliness. The border region should be connected across borders on local and regional level. Alternative and environmental friendly transport modes are to be applied preferentially. Intelligent transport systems shall be implemented also in logistical centres (Interreg Austria - Czech Republic 2007, 24ff., 34, 51, 56f.).

#### 02 Austria - Hungary

The accessibility of the cross-border region between Austria and Hungary varies strongly within the region. The North has a very efficient transport system for all transport modes, the South is underdeveloped. The region is crossed by major road transport corridors that lead to congestions and should be enlarged. The rail system is improving because of important investments in modernization. The Danube contributes to an increased intermodality as inland waterway and its ports are connected to roads and rail. The capacity of ports is about to be enhanced. Several airports secure the connection of the region to the outside. A cross-border bicycle network is being established and will be developed further. Still links between the two countries are missing. Public transport services are to be coordinated across the border. The transport connections are to be improved and multiplied and environmental friendly transport is to be promoted. Especially regional and local transport connections across borders and cities need to be improved. Also, urban and rural areas shall be connected. Multi-modal freight systems need to be improved further. The objective "Sustainable development and accessibility" promotes an environmental friendly transport system which contributes to the accessibility of the border region. Innovative logistical chains across the border as well as transport management systems and public services are to be developed and shall improved cross-border linkages. The interlinkage within the region is to be improved, especially from North to South but also from East to West. Urban transport shall become more environmental friendly (Interreg Austria-Hungary 2007, 19ff., 49f.).

# <u>03 Austria – Italy</u>

The transport network of the cross-border region between Austria and Italy has an adequate accessibility with road, rail and air transport networks. It is influenced by the geographical barriers in the region: the Alps. Road freight transport is very strong at the cross-border sections which has negative environmental effects. Some remote regions do not have a good access to services. The transport should be developed sustainably. Under priority "Raum und Nachhaltigkeit" (Space and Sustainability) the transport development and innovative cross-border logistics can be supported. It shall contribute to the removal of cross-border barriers. The accessibility to transport services shall be improved in remote areas and the regions shall be interconnected. Urban and rural areas shall be linked. Information systems and other intelligent transport systems shall be developed to make the transport system more user-friendly (Interreg Österreich - Italien 2007, 29 58ff.).

#### <u>04 Austria-Germany/Bavaria (Bayern – Österreich)</u>

Bayern-Österreich does not have an own priority for transport. One superior aim is the reduction of barrier effects across the borders, among others in transport infrastructure. The region is considered to be well connected to the European transport system. It is also used as a transit region. The Danube river is relevant as transport mode. Three TEN-T priority projects cross the region. The internal accessibility though shows some weaknesses often due to geographical barriers as the mountains. Especially the public transport needs to be improved in these cases. The region is influenced strongly by a seasonal increase of transport because of tourism whereas in low season cross-border services are not offered regularly in peripheral regions. Public railway services are declined. Because of an increasing strong freight-transit transport the cross-border regions suffers from environmental and noise pollution. Also the interregional freight transport increases, urban agglomerations are congested. The two domestic job and education markets are interlinked. Therefore, there is a need of cross-border transport connections

and public services to ensure the accessibility of all population groups. Priority 1 supports among others the establishment of bicycle lanes as touristic project. A sub priority of priority two on making the region a more attractive and sustainable living area is focused on the improvement of accessibility in peripheral regions. Geographical barriers shall be overcome. Additionally, the transport links to regional centres and urban agglomerations shall be improved and especially remote regions should be connected in passenger and freight transport. Existing transport network are to be upgraded and made inter-modal. Public transport services across border are to be facilitated and adjusted Especially the infrastructure for public transport, bicycles and pedestrians shall be improved. Intelligent management systems shall be developed for different user groups and sustainable transport modes shall be promoted as alternatives to the road. Especially freight transport is to be shifted to rail transport (Interreg Bayern - Österreich 2014, 43ff. and 64ff.).

#### 05 Belgium-France (France - Wallonie – Vlaanderen)

The cross-border region France – Wallonie – Vlaanderen is situated very centrally in the EU. The region is considered to become a logistical hub which shall be supported by enlarging the capacities of all different transport modes. The cooperation area is connected via road and rail transport. However, there are some regions that are less connected and some roads are congested. Rail transport across the border is not very advances so far. The region consists of several regional airports, important ports and has a several waterways. The latter are to be improved. In priority three of the Operational Programme the cross-border region shall amend its cross-border infrastructure, among others, in transport. The usage of cross-border public transport shall be promoted and the user-friendliness of the transport system needs to be improved. Car-sharing offers shall be promoted. Alternative and sustainable transport modes shall be applied to reduce the environmental pollution (Interreg France-Wallonie-Vlaanderen 2007, 34, 84, 88).

#### <u>06 Belgium – Germany – The Netherlands (Euregio Meuse Rhin)</u>

The Euregio Maas Rhein is an important node for freight logistics it has two airports and big inland ports. The logistical infrastructure contains several multi-modal hubs. Still it needs to be kept up-todate. The fast road transport network is fully developed but is a high environmental burden for the region. Also the railways are in a good condition and contain several intermodal terminals. However, rural areas are not connected very well to the internal transport system. Innovative ideas should be implemented in cross-border transport. Bottlenecks in the multi-modal freight transport should be avoided and barriers in transnational transport services should be overcome by a better coordination and multi-lingual communication of the multi-modal offer, cross-border schedules, tariffs and technical systems. The Euregio Maas Rhein contributes to the transport development with the priority "Natur und Umwelt, Energien, natürliche Ressourcen und Mobilität". The transport services should become more environmental friendly and sustainable. The use of renewable fuels and alternative transport modes to the road shall be promoted. A focus is laid on the traffic of short distances. Especially public transport shall be promoted and the connection between urban and rural areas shall be improved. Innovative transport solutions shall be developed for a better accessibility of the peripheral regions. The mobility of passengers across borders in short-distance traffic shall be supported and the French fast train network of the TGV should be accessed better. Further multi-modal platforms for the freight transport shall be developed (Euregio Maas-Rhein 2007, 31f., 46, 49, 68ff.).

# 07 Belgium-The Netherlands (Vlaanderen – Nederland)

The infrastructure in the cross-border region between Belgium and the Netherlands has a good accessibility with the road and high-speed rail network, seaports and airports. Its freight transport across the sea is considered to be good. The cross-border road network and public transport are insufficient and

congested. Under priority one "*Economie*" also the transport development is to be supported. The transport network needs to be enhanced to avoid further congestion and existing underused infrastructures shall be made more attractive. Additionally, public cross-border transport services are to be coordinated and expanded. The transport network should be sustainable and remote areas should be interconnected with urban hubs. The accessibility of the region is to be improved. Logistics shall be supported. Intermodal transport is to be enhanced. Bottlenecks in cross-border sections shall be abolished (Grensregio Vlaanderen-Nederland 2007, 55 74ff. 78).

#### 08 Czech Republic-Poland

As the operational programme of the Czech-Polish programme is solely available in Polish and Czech language only the short summary in English could be taken into account. Transport is supported under the priority "Strengthening of Accessibility, Environmental Protection and Risk". The infrastructure, transport services and safety are to be improved. Additionally, the environmental pollution shall be minimized (European Commission n.y.e).

#### <u>09 Czech Republic – Slovakia</u>

The cross-border region between the Czech Republic and Slovakia the transport network consists of national and international tracks. TEN-T corridors cross the region and have a positive impact on the transport infrastructure of the region: Rail tracks and motorways are established. The border region is relevant for transit transport. Many roads are under construction. However, the region is not very efficient in freight transport on waterways. It could improve its offer. The region has several border crossings via road, railways and river crossings. As the region contains the most important agglomerations of both countries it has a good accessibility. The inner accessibility decreases in rural and peripheral regions and the infrastructure of border section is often rather poor. Bicycle paths and pedestrian walks across the border need to be developed. The second priority "Development of the crossborder region accessibility and environment" shall improve the accessibility and the internal qualitative interconnection with roads, rail tracks and bicycle lanes of the region. Also rural parts should be connected to the transport system sustainably. Alternative transport modes shall be supported. The access of waterways can also be used for touristic reasons. Regular public transport services are to be improved and intelligent transport management systems applied to contribute to a better interoperability and environmental friendliness of different public transport modes (Interreg Slovenská republika -Česká republika 2007, 15,16,20,22,41-42; European Commission 2011b).

# 10 Denmark-Germany (Fehmarnbelt-Region)

The Fehmarnbelt region between Germany and Denmark is crossed by the transport axis between Hamburg and Copenhagen and strongly influenced by this road and rail network. It therefore has a good accessibility. The region is named after the Fehmarnbelt which is a strait of 18km in the Baltic Sea between Germany and Denmark that is connected via ferry. This strait and its infrastructure are very relevant for the transport in the border region. A solid connection is still discussed. The cross border region is confronted with many working commuters and has a strategic position for sea freight logistics and transport to Russia and Western Europe. However, there is a number of small ports which are dependent of bigger ports. There should be a better connection between the maritime transport within the region. The rail connections could be improved and public transport services should be enlarged. Transport development is not one of the most important issues of the Operational Programme of the region. It is a subfield of priorities one "*Wirtschaft, Innovation, Maritimes & Umwelt*" and two "*Grenzüberschreitende Strukturen & Humanressourcen*". In this respect it shall contribute to economic initiatives and a general improvement of the border region's structure. Transport concepts shall be supported and barriers removed. Public cross-border transport services across the belt shall be removed

and it should become more user-friendly and attractive for commuters. Experiences shall be exchanged (Fehmarnbelt Region 2007, 28f., 42).

#### <u> 11 Denmark – Gemany (Syddanmark - Schleswig-K.E.R.N.)</u>

The cross-border region between Germany and Denmark "Syddanmark - Schleswig-K.E.R.N." is closer to the European main land than Scandinavia and therefore potentially in a more central position. Still it is a peripheral region. The freight transport infrastructure as well as multi-modal logistical terminals urgently needs to be modernized. The Fehmarnbelt is a strong competitor for the transport flows to Scandinavia. Maritime transport can be expanded and is connected very well to the hinterland. The transport links through the region should be promoted as important corridor. The second priority of the programme entitled "Entwicklung der Rahmenbedingungen des Gebiets" is also dedicated to improve the transport infrastructure of the region as an important framework condition. The region shall be developed as central logistical hub. Therefore, several studies on the development shall be conducted. Cross-border logistical services are to be developed. Priority three "Zusammenarbeit im Alltag und funktionale Integration in der Grenzregion" also supports transport investments. Cross-border commuting shall be improved to support an integrated job market and the mobility of the people. Additionally, public transport systems are to be supported. A focus should be laid on an environmental friendly, user-friendly and affordable offer. The internal and external accessibility shall be improved. The cross-border transport should be planned bilateral and coordinated (Interreg Syddanmark-Schleswig-K.E.R.N. 2007, 23 and 49ff.).

#### <u> 12 Estonia – Latvia</u>

The programme area of the Estonia - Latvia cross-border region considers internal and external accessibility as very important for economic competitiveness. The transport system needs to be of high capacity and connect the different transport modes. The freight transport networks are considered to be well. However, the passenger and service mobility is to be enhanced because of existing barriers. The inner transport connection needs to be improved especially the links from east to west. There are no fast connections and often in bad technical condition in the border sections. Some road connections across the border are even missing. Especially remote regions suffer a bad accessibility. Furthermore, crossborder public transport services are missing or are very rare which hinders the existence of an integrated job market. Some rural areas are very isolated. The area covers several sea ports of which the majority is solely active in the ice-free time. One seasonal ferry connects the programme area. The rail network is solely used for freight transport between Russia and Europe and has solely one border crossing between Estonia and Latvia. Under the priority "Increased cohesion of the Programme area" the region envisages to better internally and externally connect the region by creating new cross-border links and upgrading existing links and developing common infrastructure. It should be made use of the international transport corridors that cross the region. Innovative logistical ideas should be developed. Especially the local transport network of all transport modes shall be developed. Remote and rural regions should be better integrated (Interreg Estonia - Latvia 2012, 11ff. and 30f.).

# 13 Finland-Estonia-Latvia-Sweden (Central Baltic)

The Central Baltic programme did not define a sole priority of transport. The transport network is internally and externally linked. Sea transport connects the cross-border region. It is very relevant for passenger and bulk cargo transport. Ports connect the hinterland to the sea and the countries with foreign countries. They are connected with road and rail transport networks and produce transport flows. Especially cities are congested because of missing bypasses and a high car ownership. Transnational transport routes cross the region. Railways are the most important transport mode in freight. Passenger traffic in rail, however, is not very advanced. Cross-border sections, airports and ports are to be upgraded to prevent congestions. Parts of the cooperation area are located at an EU border. Under the title

"Economically competitive and innovative region" also passenger and freight transport shall be improved by reducing costs and travel-time. New logistical concepts are to be established. Eco-efficient and alternative transport modes to the road are to be supported as railway and water transport. Transport should become safer. Additionally, public transport is to be improved. In general the internal and external accessibility is to be improved (Interreg Central Baltic 2007, 27ff. and 54ff.).

#### 15 France – Belgium - The Netherlands - United Kingdom (Two Seas)

The 2 Seas programme is very accessible. It has good transport connections to large urban hubs in the vicinity. The area contains several large ports and logistical hubs and is very important for trade. However, the rural and peripheral parts of the region are not well connected to the centres and infrastructure. There are not many cross-border transport services and mostly only of low capacity. The roads are highly used and congested and the quality of inland waterways needs to be improved. The priority "Creating and economically competitive, attractive and accessible area" also focuses on the transport development. Existing infrastructures shall be upgraded and their usage improved. Intermodal solutions for ports and terminals shall be developed. Ports shall be supported. Transport infrastructure and logistical services shall become more sustainable. Especially inland waterways shall be supported for cross-border transport (Interreg 2 Seas 2011, 41 and 52ff.).

#### 16 France – Germany - Switzerkand (Oberrhein) (Bezug zu Kohäsionsleitlinien)

The cross-border region "Rhin supérieur" is located very centrally and is crossed by several European transport corridors. It is therefore an important transit region. The region is characterized by a strong transport concentration and good accessibility. The region is also influenced by non-European policies and regulations from Switzerland. The transport network of the region shall be developed further depending on its individual needs and become more environmental friendly. The inter-linkage of transport across national borders shall be supported and bottlenecks removed. The transport infrastructure connection from West to East is less advanced than the one from North to South, also because of the natural barrier of the Rhine river. Only five percent of the passenger traffic crosses the national borders. Across borders most transport is individual transport, only very little is done by public transport. However, the numbers vary. When cross-border transport is concentrated on a special hub it is easier to develop good public services like to Basel. In cross-border regions with more disperse transport movements it is harder to provide an efficient service. The region is very relevant for freight transport across Europe. Most freight is transported on roads which are congested especially at crossborder sections. Air pollution and environmental harm in general is a severe problem in the area. The rail network is hindered by technical and logistical barriers across the borders. The pricing across borders is also difficult which does not make this transport mode very attractive. Multi-modal transport across borders is not used although it is very efficient in the domestic systems. Sustainable measures should be taken to improve freight and passenger transport. Inland waterways are hampered by infrastructural bottlenecks. This cross-border region did not dedicate one of its priorities solely to transport but the priorities contain sub goals that relate to transport. To improve the attractiveness of the region, investments in the transport infrastructure shall be made. Furthermore, transport investments shall also contribute to the sustainable development of the region. The internal and external accessibility shall be secured and the environmental burden shall be mitigated. National transport shall be linked more efficiently and the usage of cross-border transport infrastructure and services shall be increased. Intelligent transport management shall be implemented. Especially, infrastructure that cross the Rhine shall be supported, bicycle lanes established and cross-border public services shall be improved especially between transport hubs like train stations and airports. Transport hubs can be supported as well. Cross-border transport monitoring and management systems shall be implemented and national

systems shall be connected. Tariff structures for cross-border services shall be assimilated and crossborder transport service focussedities shall be established. (Interreg Oberrhein 2007, 41, 61 and 67ff.)

#### 17 France - Italy (ALCOTRA)

Overall the region has a good transport infrastructure However, it is not developed balanced over the whole territory. The region is characterized by the Alps that divide the region. The region is a crossed by an international rail transit route for passengers and freight through the Alps. Some rail routes urgently need to be upgraded. The local transport networks are of good quality and mainly interoperable between bus and train. The crossborder region has a good air transport infrastructure. The regions contains some ports, however, none of them is very important for freight transport. One of the strategic topics of the programme is the improvement of the transport infrastructure and logistics to contribute to a better and sustainable accessibility of the region for freight and passenger transport. To contribute to the quality of life the accessibility of remote and disadvantaged regions shall be improved. Public transport services shall be established and connected to the sea to be made multi-modal. Short see shipping and the Motorways of the sea are seen as a good measure and the ports should be connected properly to land transport modes. (Interreg ALCOTRA 2007, 14f. 43 52)

#### <u> 18 France – Switzerland</u>

In the cross-border region between France and Switzerland cross-border transport usually takes place across short distances. There are several cross-border commuters. Most traffic is concentrated on individual road transport. Cross-border transport services are not coordinated and therefore not used frequently. The region has a good transport network and accessibility on road and rail. However, the domestic parts are not yet very well interconnected from east to west. The border regions tackles the transport development with the priority "Favoriser l'aménagement et le développement durables des territoires, en veillant à une meilleure gestion de la mobilité et de l'environnement". The region shall ensure a sustainable development by investing into the mobility and the environment. Therefore it should develop public transport services on alternative transport modes than the road. These alternative transport modes should become competitive. Furthermore, the east-west, i.e. cross-border connections should be improved. Transport services across the border should be improved, coordinated and promoted. Potential users should be informed better about the offer. The transport network should foster a sustainable development by making the existing tracks multi-modal. Urban and rural regions shall be interconnected. Bicycle lanes across borders should be established if appropriate. Additionally, statistical data on cross-border transport needs to be collected to be able to react on the needs and feasibility studies should be conducted. The coordination of the different transport modes in crossborder transport is to be improved and the infrastructure needed is to be provided (Interreg France-Suisse 2007, 36 43f. 52).

#### 19 France - United Kingdom (Manche/Channel)

The cross-border region is separated by the sea which can be considered as a transport barrier. Thus the sea is an important factor for the cross-border region. The sea channel is highly used: 500-600 ships cross the common channel area per day. Ferries cross the sea between the two parts of the cross-border region 120 times per day in high season. Eight main ferry lines connect the region. Further lines connect neighbouring regions. High numbers of passengers and freight volumes are moved every day. Safety in the sea transport needs to be increased. The ports of the region serve as logistic hubs but face intermodal challenges because of a poor connection to their hinterland: The connection between sea and road as well as rail infrastructure needs to be improved. Also some ports need to be modernized. Despite several airports in the cross-border region they are rarely used to access the other part of the region as a means of cross-border transport. The road and rail network connects the region but is not evenly distributed in the region: The Western part of the region has a less dense road and rail network whereas some parts

are strongly congested (e.g. East of England) because of the proximity to urban hubs. The quality of some roads needs to be enhanced. Also the transport infrastructure from East to West is not very advanced. Peripheral areas are often not very accessible whereas most infrastructure investments are taken in urban areas. In general the public transport is not sufficient. Most transport flows rely on the private car.  $CO_2$  emissions are high and burden the environment. Also the sea is polluted by the strong transport flows. The Operational Programme refers to the INTERREG B programmes' aims (North-West Europe, Atlantic, North Sea) where transport safety is also among the priorities. To avoid redundancies, the Operational Programme wants to concentrate its funds on special themes. The second priority axis "Tisser des partenariats d'acteurs pour le développement économique et les poles d'exellence transfrontaliers" [Initiate stakeholder partnerships for the economic development and crossborder excellence-poles] among others transport innovations shall be developed across-borders. The fifth priority "Promouvoir les cooperations relevant des activités maritimes durables" [Support cooperation in sustainable maritime activities] supports the development of strategies, research and pilot projects to increase the multimodality of the sea ports, the safety of sea transport and other activities to make the sea transport more sustainable and environmentally friendly. Furthermore, important stakeholders in the sea transport shall be informed about potential actions in relation to cabotage and intermodal connections and shall cooperate and exchange experiences across borders. Also the touristic sea infrastructure (sailing etc.) shall be upgraded. Furthermore, new intelligent transport systems can be developed. The third priority axis "Construire un espace commun attractif pour y vivre et pour le visiter" [Develop an attractive common space to live and to visit] also supports projects in the exchange of experiences to make urban transport more sustainable. Also the fourth priority "Assurer un *développement durable de l'espace commun*" [Ensure a sustainable development in the common space] support projects which focus on the shift to more environmentally friendly transport modes to minimize the CO<sub>2</sub> emissions: best practices in this field are to be exchanged (Interreg (Manche) - Angleterre 2008, 23ff. 44 53ff. 61 63f. 75f. 80ff. 84, 88f. 92).

#### 20 Germany/Bavaria-Czech Republic

The cross-border region *Bayern - Česká Republika* does not have an own priority for transport develop but takes it into account in the second priority on the spatial and environmental development. The region is situated very central in Europe and has some fully connected cross-border infrastructure in rail and road transport. These transport connections are strongly used, congested and harm the environment. However, especially the secondary networks are less developed. Public transport services across border are missing, especially rural and remote areas have a low accessibility. Integrated and intermodal transport systems are missing. The cross-border shall be developed sustainably. Therefore the transport developed for road, rail, air and public transport. Environmental sustainable transport modes shall be developed further, cross-border transport management systems and services shall be applied. Furthermore, multimodal transport systems and hubs shall be established. Barriers of the transport flows across the borders shall be deleted (Interreg Freistaat Bayern-Tschechische Republik 2007, 23 and 43f.).

#### 21 Germany/Mecklenburg-Vorpommern-Brandenburg – Poland

The transport infrastructure between the German and Polish cross-border region is partly in a bad condition. The region is crossed by transnational transport corridors which could benefit the economic development of the region. The first priority of the programme shall contribute to a better cross-border infrastructure and an improvement of the environment ("Förderung der Infrastruktur für grenzübergreifende Kooperation und der Umweltsituation im Grenzraum"). Here amongst others also the transport infrastructure is to be improved. The TEN-T corridors and transnational routes shall be connected to the transport network of the region to improve the latter's external accessibility. The

transport safety is to be improved. The road, rail and waterways as well as bicycle routes are to be supported. Cross-border research projects on the territorial and transport development are to be conducted. The transport development should be environmental friendly. (2009, 35f., 47)

#### <u>22 Germany/Saxony – Czech Republic</u>

The cross-border region between Saxony (Germany) and the Czech Republic has benefitted from the Eastern enlargement of the EU because they became important transit countries. It is expected that the freight and passenger transport will increase strongly in the next years. Therefore the infrastructure needs to be developed further. The road transport network needs to be improved: the infrastructure needs to be upgraded, new connections of urban regions to the main roads need to be established and urban transport shall be relieved. Also the existing rail infrastructure needs to be renewed. Public intermodal transport systems between rail and road need to be developed that are coordinated across borders and user-friendly. More cross-border sections shall be developed, also to support the tourism in the region. The new development shall be based on individual local needs. Under priority one "*Entwicklung der gesellschaftlichen Rahmenbedingungen im Fördergebiet*" also investments in the cross-border transport infrastructure for increased transport needs. It shall improve the internal and external accessibility. In the expansion of road and rail network and services the environmental burden shall be minimized and sustainability maximised (Sächsisches Staatsministerium für Wirtschaft, Arbeit und Verkehr, Referat 54 – Verwaltungsbehörde 2010, 12, 23, 34ff.).

#### 23 Germany/Saxony - Poland

The cross-border region between Saxony and Poland has benefited from the EU enlargement and lost its peripheral position. The transport through and within the region is growing. Cross-border sections and services are not sufficient and need to be multiplied and improved in their infrastructure. The first priority entitled "*Grenzübergreifende Entwicklung*" shall support the development of the cross-border region and focus on transport among others. Bottlenecks shall be removed. The two domestic transport systems shall be connected better and additional cross-border services shall be created to increase the inner mobility. Furthermore, the external accessibility shall be improved by linking the transport network of the border region to European transport axes. The improvement of the rail network for touristic reasons can be supported. The public transport services shall become more environmental- and user-friendly and multi-lingual (Sächsisches Staatsministerium für Wirtschaft, Arbeit und Verkehr, Referat 54 – Verwaltungsbehörde 2011, 15, 35ff.).

#### 24 Germany – The Netherlands

The transport network of the cross-border area Deutschland-Nederland is crossed by important road corridors (also TEN-Ts). Inland waterways are important for freight transport. The region is accessible by all transport modes and is located very central within the EU. Cross-border rail transport can still be improved in several cases. The public transport needs to be adjusted. Innovative solutions are needed in peripheral regions. Challenges are different domestic techniques, norms and responsibilities. Roads are sometimes, especially in cross-border sections, congested. Ports should be connected better to their hinterland. Furthermore, intermodal hubs have to be upgraded. The cross-border region between Germany and the Netherlands did not lay down one specific priority of the transport development. Under priority two on sustainable regional development of the region, the improvement of the transport offer is one field of action to contribute to a competitive economy. Cross-border transport networks and services are to be interlinked and different domestic systems overcome. The growing transport demand is to be shifted to more environmentally sustainable transport modes like the railways, waterways and public transport. Congestions should be avoided. Logistical freight chains across borders shall be developed further (Interreg Deutschland Nederland 2015, 29ff. and 63ff.).

#### 25 Greece - Bulgaria

When preparing the programming documents Bulgaria was not an EU Member State. The accession of the country at the beginning of 2007 can be seen as impetus for increased cross-border cooperation. The cross-border region Greece – Bulgaria is considered to be an important node for the Balkan. The region benefits from investments in the TEN-T and its priority projects and pan-European corridors that cross the region and shall be connected to secondary networks. Still the accessibility needs to be improved further and the cross-border infrastructure needs to be improved. More border crossings are foreseen. Bulgaria relies much on road transport because of geographical conditions. Internal regional and local roads are often in a very poor condition especially in rural regions. Thessaloniki, as being part of that region is an important transport hub for the whole regions with all transport modes and offers connection in the whole EU. There is only few railway connections between the border region between Greece and Bulgaria. The Bulgarian part of the region does not have any airports with national and international flights whereas in Greece there are three. The region has 8 ports, only three are of national relevance. Transport development is very relevant for the region. Therefore it dedicated one priority "accessibility" to the topic. The mobility of passengers, freight and services within the region shall be improved and made safer. The existing infrastructure is seen as insufficient and the planned renovation and construction of the road and rail network are delayed. The secondary network is also inefficient and the accessibility of rural areas is very poor. Border sections are seen as major obstacles and shall be improved. More border sections are to be established. The existing road and rail infrastructure shall be further upgraded. Cross-border infrastructure development shall be coordinated by the programme. Logistical networks across borders shall be established. Furthermore, environmentally friendly transport modes shall be promoted and congestions minimized. Additionally, cross-border infrastructure and facilities need to be amended because of the accession of Bulgaria. The infrastructure should become more user-friendly and offer cross-border public transport tickets and coordinated schedules etc. (Interreg Greece-Bulgaria 2011, 38ff., 64 and 76ff.).

#### <u> 26 Greece – Cyprus</u>

The Operational Programme between Greece and Cyprus is solely available in Greek. Only the short summary in English could be taken into account. Under the priority "Accessibility and Regional safety" the transport system is to be improved. Furthermore, innovative technologies shall be developed and applied in the transport system (Interreg Greece-Cyprus 2008; European Commission n.y.d).

#### 27 Greece - Italy

The border region between Greece and Italy benefits from investments in the TEN-T corridors. However, the connection to secondary networks needs to be established. Multi-modal and interoperable transport infrastructure needs to be improved. The ports of the programme area could become part of the motorways of the sea and are said to be interconnected and relevant for freight and passenger transport. The region has a good airport and railway system. The programme area is located between Europe, Asia and Africa and could play an important role of connection. However, the efficiency of the network shall be improved. It shall become safer, environmental friendly, more sustainable and multi-modal. Bottlenecks and congestions shall be minimized. The exchange and networking between important stakeholders shall be improved. New technologies, energy efficient and intelligent transport management systems shall be applied. Urban transport shall be improved, be more user-friendly and the environment should be relived (Interreg Greece - Italy 2012, 21ff. and 87ff.).

# 28 Hungary - Romania

The external accessibility of the border region between Hungary and Romania has been developed in the last years. The inner transport infrastructure, especially in rural areas is very poor still. Cross-border sections need to be improved after the removal of the Romanian border and its EU accession. The

Romanian cities are connected via railways but the railway connection in parallel to the border is not working in Hungary. Cross-border railway connections for passenger and freight transport exist. But especially the quality of passenger transport needs to be improved. In one case the cross-border section that would connect both domestic systems is missing. Several transport investments also in the TEN-T network are made that cross the region. The region contains several airports. Priority one "Improvement of the key conditions of joint, sustainable development in the cooperation area" foresees also investments in the transport infrastructure to improve the border region's accessibility. Bottlenecks shall be removed and environmental harm reduced. Therewith transport shall become more sustainable. Roads and railways shall be upgraded and contribute to a connection between border villages and cities. Peripheral regions shall be connected to the transport network. Bicycle lanes across borders shall be established. Public transport services across borders should become more user-friendly and coordinated (Interreg Hungary - Romania 2008, 17ff. 68ff.).

#### <u> 29 Hungary - Slovakia</u>

The cross-border connection of the border region between Hungary and Slovakia is considered to be acceptable. The cross-border region is partly separated by the Danube and the Ipel. The existing bridges that link both territories should be upgraded. Ferries are used to complement the cross-border transport. The Danube is an important means of transport and could be exploited more but needs to meet requirements for inland waterways which has not been the case so far. There are not enough ports. Two TEN-T corridors cross the region. The road network between the Northern and Southern part of the cross-border region needs to be modernized in its quality. The roads are congested. Some parts are hardly accessible because of geographical barriers due to the topography. The rail network in both domestic parts is fine, however, the connection from North to South is not good. There several airports in the cross-border region. The second priority "Environment, nature protection and accessibility" focuses among others on the transport development. Roads, bridges, ferries and regular public transport services shall be upgraded and established. Public transport services across borders should become more user-friendly and coordinated. Bicycle paths across the border shall be established (Interreg Hungary-Slovakia 2007, 21f., 35, 47).

#### 30 Italy - France (Maritime)

The cross-border region of Italie – France Maritime consists of parts of the French and Italian coast and two large islands with a very low accessibility and high level of isolation. The islands are strongly dependent of the domestic national systems. From the Italian main land there is no direct transport connection to Corsica. Both islands are not connected to any transnational transport route. On the coast there is an important port for passenger and freight transport which even became more important because of its good connection to road and rail. The transport networks connect the urban hubs but internal mountainous rural regions are not connected well. The region contains several national airports. The cross-border region supports the transport development under the priority "Accessibilité et réseaux de communications". Transport services are to be developed and made competitive. They should be connected with the TEN-T and Motorways of the Sea. Isolated areas should be connected to the transport system and its services. Sea and air transport should become sustainable and even secondary hubs should be interconnected. Intelligent systems shall be applied in the transport network to improve to a safe and multi-modal transport, integrate isolated areas. Information systems of the transport network should be developed. Furthermore, logistical services are to be improved (Interreg Italie - France Maritime 2011, 58ff., 82 88 and 93).

#### 31 Italy - Malta

The transport system between Sicily and Malta contains air and sea transport and is said to be satisfying. The rail connection of Sicily, however, is not efficient and congested in tourist season. Airports and ports are very efficient. Some ports are part of the TEN-T. The programme shall support a sustainable access also for internal areas of the islands as well as small islands, multi-modal and interoperable transport. Under the first priority "Competitiveness" environmental friendly cross-border transport systems are to be fostered that support the internal and external accessibility of the region. Small islands are to be connected better to the main islands. Public infrastructure services are to be improved as well (Interreg Italy-Malta 2008, 16f., 31 33ff.).

#### <u> 32 Italy - Slovenia</u>

The border region between Italy and Slovenia has a central position between the Northern and Southern as well as Eastern and Western EU. Because of Slovenia's accession to Schengen, physical barriers at the borders will be minimized. However, the border region faces several challenges: The public transport services between the countries are not coordinated which leads to a strong concentration of private car users at the borders. New investments in the public transport services are needed. Furthermore, the region's accessibility is not balanced through the territory. Rural and peripheral regions are less connected to the transport system. Additionally, there is the risk of a high competition between the different transport modes and a missing coordination. The transport system needs to become more interoperable and multi-modal. The cross-border programme between Italy and Slovenia dedicates its first priority "*Assicurare un' integrazione territoriale sostenibile*" partly on transport. The accessibility of the region and its transport system shall be improved. Furthermore, peripheral areas shall be linked to urban hubs and the transport system shall become multi-modal (European Commission 2017d; Interreg Italia - Slovenia 2007, 36, 58).

#### <u> 33 Italy – Switzerland</u>

The cross-border region between Italy and Switzerland is an important transit region and the transport flows are increasing. Therefore the region has some problems concerning the environmental pollution and the infrastructure needs to be expanded. Some geographically peripheral areas are not connected well to the transport system. Urban centres are often congested which leads to environmental harm. There are some cross-border rail network cooperations and a common tunnel project but in many areas there is an insufficient cross-border infrastructure and a lack of communication between the domestic transport systems. Because of the mountainous area transport projects are very expensive and can harm the environment. The border region foresees in its priority on competitiveness the development of the transport network and of transport services in the cross-border context for both passenger and freight services (Interreg Italia-Svizzera n.y.b; Interreg Italia – Svizzera 2007, 22, 85).

# <u> 34 Latvia – Lithuania</u>

The transport system of the Latvian Lithuanian cross-border region is considered to have a good railway and road system. Transnational corridors and transit transport cross the region. The internal and external accessibility is described as good. International and regional airports are situated in the area. However, there is also very old transport infrastructure especially in cross-border sections that needs to be improved. In some cases border sections and transport services are missing- logistical barriers exist. The economic potential of transnational transport corridors should be used to develop secondary infrastructure in the vicinity. Under the priority "Encouragement of socio economic development and competitiveness of the region" support can also dedicated to the improvement of the accessibility. Internally and externally the transport system shall be better integrated. Logistical barriers shall be improved and the border region shall be better integrated in the EU. Internally, rural and urban areas shall be linked better. All transport modes are supported (Interreg Latvia - Lithuania 2007, 37ff., 42f.).

#### <u> 35 Lithuania – Poland</u>

The level of accessibility varies strongly in the cross-border region between Poland and Lithuania. The region is crossed by international transport corridors. The inter-linkage between the regions is not good. Neither is the multi-modality. The infrastructure is often very old and congested. The capacity of the railway system should be used more. However, the domestic railway systems of Lithuania and Poland differ which causes delays at the border sections. As the railway infrastructure is not very modern, it causes speed limits and makes it unattractive. Therefore the main passenger transport is based on road transport by cars or buses. The bus system should be improved and better coordinated. Cross-border ticketing should be established and the cross-border connections should be come interoperable. Pedestrian and bicycle lanes should be established at border crossings. Under priority one "Competitiveness and productivity growth of the cross-border region", also transport can be supported by making public transport system shall be beneficial for the economic development of the region. The support shall be focussed on the upgrading of existing transport infrastructure. New transport cross-border sections shall be added (Interreg North 2007b, 17f., 29, 45ff.).

#### <u>36 Poland - Denmark - Germany - Lithuania – Sweden (South Baltic)</u>

The South Baltic cross-border area is located very peripheral and is not crossed by important international transport corridors. Therefore the transport infrastructure needs to be improved. The crossborder connections need to be multiplied and the cities should be interlinked. The accessibility varies strongly within the region. The area is very important in freight transport. The region has a good rail and road network but it needs to be updated. Especially the Polish network needs to be improved. The North-South connections are very relevant that link the Scandinavian part of the region to the European main land. East West corridors are very relevant for international trade to Russia and China. The rail roads need to be improved to become more environmental friendly and safer and an attractive alternative to road transport. Sea transport needs to be expanded and modernised and linked better to the other transport modes. The Motorways of the Sea are to be supported and connected to the cooperation area. Air transport is very important for the region because of geographical reasons. The local and regional airports shall be supported. Under the first priority axis "Economic Competitiveness" the South Baltic cross-border region dedicates also investments into "Transport accessibility". The quality of the transport network and its services are to be improved and made more environmental friendly. Feasibility studies for missing transport and intermodal links are to be conducted. New cross-border transport connections are to be established. Public transport services shall be improved and made more sustainable and user-friendly. Best practices are to be transferred. A focus is laid on air and maritime transport (Interreg Sout Baltic 2007, 16ff. and 28ff.).

#### 38 Poland - Slovakia

The cross-border region between Poland and Slovakia is crossed by several TEN-T corridors. Additionally, several roads and railway connections exist across the border. The number of crossings could still be improved for tourism cross-border routes and the road network needs to be enlarged and modernized. The transit transport needs to be enhanced. The border region is separated through mountains which complicates transport constructions and impacts the accessibility of peripheral areas. Most railway tracks are located in valleys because of this geography. The quality of road infrastructure in Poland, especially of local and regional roads, is very low and not good for freight transport but a little better in Slovakia. The safety of the roads is insufficient in both countries. Priority one "Development of cross-border infrastructure" also supports investments in the enhancement of the existing infrastructure to improve the region's external and internal accessibility. Direct transport connections to the other side of the border shall be developed. The regions should benefit more from

transit transport. Remote and peripheral regions shall be connected to the transport system and the local transport shall be improved by removing bottlenecks. Transport investments should also be environmentally sustainable and mainly focus on the improvement of roads, multi-modality and safety. After the accession of Poland and Slovakia to Schengen the border infrastructure needs to be redefined and used. Such actions can also be supported. Cross-border transport infrastructure plans shall be supported. TEN-T corridors should be linked to the regional and local transport network of the border area (Interreg Republic of Poland – Slovak Republic 2013, 10f. and 37ff.).

#### 39 Romania - Bulgaria

The cross-border region between Romania and Bulgaria contains border crossing infrastructure on land, rivers and air. The Danube river divides the border region and can be seen as a barrier because of the lack of bridges and too few ferries that do not operate when the Danube is frozen. Pedestrian crossings should be developed. The sole bridge is also the sole railway connection between the two countries. There are several airports within the programme area but none of them connects the two domestic parts of the border region directly. There is not much international traffic crossing the region except across the bridge on the Danube. The establishment of a second bridge is planned and is expected to increase the transit transport across the region. In the last years several investments have been made in the transport network. After the EU accession, it is expected that the transport will increase. European transport corridors cross the region. The capacity for transport on the Danube is not used strongly and mainly for national freight transport. However, the responsibilities of both countries are coordinated. Still the inland waterway and its ports need to be upgraded. The sea port of Constanta is very relevant for freight transport from the Black Sea to Northern Europe. The internal accessibility is not very good. There are no complete motorways across the countries and other roads are congested, of low quality and low safety. The urban areas are connected quite well whereas the rural areas have a bad accessibility. Transport services are mainly available in cities and not sufficient. The railway network is very old and slow and needs to be renewed. The priority "Accessibility – Improved mobility and access to transport, information and communication infrastructure in the cross-border area" supports among others the transport development to improve the mobility. The isolated transport systems are to be connected. New transport infrastructure and cross border transport services shall be developed. Freight and passenger transport are to be improved. The new transport system shall be safe, flexible, multi-modal and environmental friendly. It should integrate small peripheral places across the border. Ferry lines should be improved. Exchanges of best practices across the border and research projects on transport shall be supported. Cross-border services shall be coordinated and made more user-friendly (Interreg Romania - Bulgaria 2007, 17ff., 79ff.).

#### 40 Slovakia - Austria

The accessibility within the cross-border programme between Slovakia and Austria varies much. Some parts are connected to the transport network very well. The Northern peripheral parts of region are less connected and demarcated by a river. The two centres Vienna and Bratislava are very important for the whole area as two connected international transport hubs. The road transport is often congested and needs to be upgraded because of a fast increase of international transport flows through the region. Several TEN-T corridors cross the region. Some regions are less connected to the road network. Their connection shall be improved. A border crossing in the North is missing. The railways need to be modernized and connected to other transport modes and made more attractive. The Danube is very important for international freight transport through and to the region and can relieve the road transport. The freight transport needs to become multi-modal. Freight terminals need to be upgraded. The region contains two international airports which should complement each other and coordinate its offer. The bicycle paths within the region are to be further expanded. The environment is harmed by the growing

transport. The priority "Accessibility and sustainable development" contributes to the environmental friendly and sustainable transport development of the region. The internal and external accessibility shall be improved. Innovative transport management systems are to be applied and logistics should become sustainable. Transport planning of road, rail and waterways and additional infrastructure shall be coordinated across borders (Interreg Slovakia-Austria 2015b, 24ff., 36, 58f.).

#### <u>41 Slovenia – Austria</u>

The transport network of the cross-border programme between Slovenia and Austria is considered to be good in general. The roads and railways connect the most important cities in the area very well. In Austria all regions have a good access to the motorways and one region's access is being established. The strong usage of the roads for freight and passenger transport leads to a strong environmental pollution which is to be minimized in the future. In Slovenia, several investments into the road infrastructure have been and will be made. So far not all regions are fully connected to it. The use of road transport has been growing while the use of public transport has been decreasing. Three crossborder railway connections cross the border region and the central areas are connected. The attractiveness, however, is rather low because it is very slow. Especially, the Slovenian railways are not modernized. The region contains four international airports and therewith a good connection to air transport. 37 border crossings exist in the border region. With the accession of Slovenia to the Schengen Area the border facilities can be removed and reused e.g. for transport services and logistics. Efficient and regular direct public transport connections across the borders still need to be developed. The Operational Programme of Slovenia and Austria foresees besides three priorities also horizontal themes among others, transport development to contribute to a sustainable region. Public transport services across the border are to be improved to mobilize less mobile people. Furthermore, minimizing the environmental harm of transport can be supported under priority two on a "Sustainable and balanced development". New technologies in this field are to be developed and exchanged. Best practices in the application of renewable energies in public transport shall be exchanged. Urban public transport systems can be supported as well. These should connect other cities across the borders in the cases of a high commuting mobility. Intermodal transport should be supported (Interreg Slowenien - Österreich 2007, 29f., 45, 53ff.).

# 42 Slovenia - Hungary

The cross-border region between Slovenia and Hungary is crossed by a TEN-T corridor but has no connection to it. The roads within the area are strongly congested. The cooperation area has seven border crossings, only two are used internationally. They should be multiplied. After the accession to Schengen it is expected that efficient local roads across the border need to be developed to improve the internal accessibility and mobility within the region. The region is crossed by an international railway track. Further connections are needed. Not all parts of the region are connected to the railway. The region has three airports. There is a good public bus system within both parts. However, not all rural and peripheral regions are included and there is no regular bus direction across the national border. Under priority one of the Operational Programme the "attractiveness of the cooperation area" is to be improved. Here also cross-border transport shall be supported. Cross-border road connections and bicycle tracks can be upgraded and established. Public cross-border transport services are to be established to improve the mobility of commuters and tourists. Cross-border transport plans and promotion actions shall be supported as well.

# <u>43 Spain - France – Andorra</u>

The cross-border area contains a good and efficient road transport system. In France also the secondary networks are very efficient but not in Spain. The sea transport is very relevant for the freight transport of the region. Important transport axes cross the region. The air accessibility is also good. The Spanish

ports are very relevant for the development of the motorways of the sea. Most infrastructure and traffic is concentrated in the coastal areas which are congested in bottlenecks, other more central parts of the region are isolated. The domestic public rail and road services are not adjusted and not connected efficiently. The French part lacks a national commercial airport. Alternative modes to road transport should be supported. Fast railway lines and inter-modal platforms should be established. Environmental impacts should be minimized. The priority "*Mejorar la calidad de la población a través de estrategias communes de estructuración territorial y de desarrollo sostenible*" shall among others improve the accessibility of the region. The whole region should be connected to transport networks in a polycentric way. Also, peripheral and rural regions should have access to the network and be connected to the cities. Cross-border sections should be improved, and the domestic transport systems should be linked better taking into account the special geographic conditions of the Pyrenees. To contribute to a sustainable development the network should be interoperable and multi-modal. Intelligent transport management systems shall be applied (Interreg POCTEFA 2010, 27 48f.).

#### <u>44 Spain – Portugal</u>

Cross-border transport increases but is mainly based on individual car transport because of lacking or insufficient public transport services. Freight transport is improving because of the establishment of intermodal hubs. Still, freight is mainly transported via road transport. Rail transport is decreasing, sea transport is slowly growing. The cross-border area "Centro-Castilla y León" being part of the cross-border region between Spain and Portugal, aims to make use of the regions strategic position: It is crossed by a TEN-T corridor. The closeness of this corridor shall be used to create economic growth. Technological innovations shall be implemented in the transport network. Also, the region "Centro-Extremadura-Alentejo" wants to improve cross-border transport connections and improve the accessibility. The programme area "Alentejo-Andalucía-Algarve" also wants to support the infrastructural development in the Guadina basin and especially support less developed rural regions in their transport development. As common priorities of the programme, transport support is integrated: "Ordenación del Territorio y accesibilidades". Here urban and rural areas should be interconnected and the accessibility through transport infrastructure improved. Cross-border logistics and inter-modal transport shall be supported (Interreg España - Portugal 2011, 31, 54ff., 73; European Commission n.y.f).

#### <u>45 Sweden – Denmark – Norway (Öresund - Kattegatt – Skagerrak)</u>

The development of passenger and freight transport is seen as very relevant for the economic competitiveness of the region. The cross-border region Öresund-Kattegatt-Skagerrak is located centrally in the EU between Sweden, Norway and Denmark. The border region is connected with the main national road and railway systems of the three countries. The region is connected via several bridges and ferries. Generally, the border area has a good external accessibility but the inner connection varies depending on rural or urban regions. Rural areas are less accessible in terms of network capacity and standards. The ports are relevant for freight transport within the region and to the rest of the world. It is a logistical hub. The cooperation area contains several important international airports. There is strong passenger traffic across the region. The environmental pollution from transport should be minimized and sustainable transport should be fostered. The priority "Binda samman regionen" [connect the region] shall contribute to the further transport development of the region. Better urban and rural connections should be created and the access to the transport infrastructure shall be improved. The transport development in the region shall be coordinated across borders. Transport information systems and new technologies shall be developed to contribute to a high user-friendliness. Furthermore, the transport should become safer. The transport systems shall be environmental friendly for both passengers and freight. Alternative transport modes to the road and alternative fuels shall be supported preferentially. The transport network of the region shall be connected to the crossing transnational corridors and TEN-T (Interreg Öresund-Kattegat-Skagerrak 2011, 26ff., 30f., 42 and 46ff.).

#### <u>46 Sweden – Finland - Norway (Botnia-Atlantica)</u>

The cross-border region Botnia-Atlantica between Sweden, Finland and Norway has one ferry connection to Finland and another shorter ferry connection is planned. Additionally, there is a new tunnel that connects the road connection between Norway, Sweden and Finland and makes it independent of the weather. However, growing transport could congest and overload this cross-border connection. The connection shall become a TEN-T corridor and benefit from this. Another international transport corridor between Norway and Russia could be established. Multi-modal transport is considered to be very important in the cross-border transport of the region. Under priority one "*Strukturer för samverkan*" [Structures for cooperation] the transport development and accessibility in the cross-border region are to be supported. Safe ferry and road transport connections within the cross-border region for both passengers and freight are to be fostered. The coordination of different transport modes shall be improved. Ports should cooperate to connect to the Motorways of the Sea. Cross-border infrastructure shall be enhanced: The establishment of bridges, ports, streets and tunnels can be supported (Interreg Botnia-Atlantica 2007, 16, 43ff.).

#### 47 Sweden – Finland – Norway - Sámi Area (North)

The cross-border region "North" between Sweden, Finland, Norway and the Sámi Area is very special because of the long distances between settlements, a cold climate and its geography. Infrastructure provision is not easy and very expensive. Therefore, some regions have a very low accessibility and investments are focused on north-south infrastructures. The trade with Russia and Eastern Europe is expected to increase. Therefore east-west infrastructure needs to be developed. There is only one cross-border railway that crosses the whole region. An international freight corridor is to be established. There is no passenger rail transport from Sweden to Finland. There is one regional cross-border flight connection between three cities. Besides that, there is a high number of other airports that connect capital cities. The harbours are very important for freight transport. Under the third priority "Regional functionality and identity" the cross-border transport infrastructure and services for freight and passengers are to be enhanced. Common cross-border public transport services are to be developed. Additionally, further barriers to the mobility across border are to be reduced (Interreg North 2007a, 21f., 44 and 55f.).

# 48 Sweden - Norway

The cross-border region between Sweden and Norway consists of three sub programmes "*Nordens Gröna Bälte*", "*Inre Skandinavien*" and "*Gränslöst Samarbete*". The accessibility to the road network varies strongly in the region. There are several motorways that connect the region and a TEN-T priority project crosses the region. In general, the roads are rather old and should be modernized. The railway connects large parts of the territory but the regularity and speed are not sufficient and the infrastructure needs to be updated. Some places show a low level of accessibility. Growing transport leads to a higher environmental harm if new infrastructures are not made more sustainable. Cross-border transport infrastructure and public services need to be developed further to foster commuting across the borders. Under the priority "*Ekonomisk tillväxt*" the transport infrastructure is supported to contribute to the economic growth of the region. Cross-border infrastructures shall be developed also in peripheral regions. The use of environmentally friendly fuels shall be promoted in passenger and freight transport. The sustainable development shall be always taken into account when planning and investing in public transport systems, roads and railways, inland waterways and sea transport as well as intermodal transport. The capacity of existing infrastructures shall be improved (Interreg Sverige - Norge 2007, 33f., 38, 45 and 57).

# X.2 Implementation of the TEN-T and ETC Policy in soft spaces

#### 49 United Kingdom (Northern Ireland - Western Scotland)

The transport system of the cross-border region between Northern Ireland and Western Scotland is hampered through the barrier of the sea. Both regions are considered to be peripheral. The conflicts in Northern Ireland worsened the situation. Under the priority "Co-operation for a sustainable Programme region" the development and improvement of transport infrastructure in rail, road and sea transport is to be supported. The transport should be speeded-up and upgraded. Transport infrastructure plans should be coordinated and implemented in cooperation. Research projects can be conducted (Special EU Programmes Body 2007, 25, 51ff.).

# <u>50 United Kingdom – Ireland (Ireland – Wales)</u>

The cross-border region of Ireland and Wales is separated through the sea. It did not define the transport development as a priority or sub-priority in its Operational Programme (Interreg Ireland-Wales 2007, 44).

	le 83: List of the analysed cross-border region's co alysed cross-border cooperation regions 2014-202(		ration programmes			
01	Austria-Czech Republic	28	Italy-Austria			
01	Austria-Ungary	28 29	Italy-Austria Italy-Croatia			
	Austria–Hungary Austria–Germany/Bavaria (Bayern–Österreich)	29 30	Italy-Croana Italy-France (Maritime)			
03						
04	Belgium-France (France-Wallonie-Vlaanderen)	31	Italy-Malta			
05	Belgium-Germany-The Netherlands (Euregio Meuse-Rhin)		Italy-Slovenia			
06	Belgium-The Netherlands (Vlaanderen-Nederland)	33	Italy-Switzerland			
07	Bulgaria-Romania	34	Latvia-Lithuania			
08	Czech Republic-Poland	35	Lithuania-Poland			
09	Estonia-Latvia	36	Poland-Denmark-Germany-Lithuania-Sweden (South Baltic)			
10	Finland-Estonia-Latvia-Sweden (Central Baltic)	37	Poland-Germany/Saxony			
		38	Poland-Slovakia			
12	France-Belgium-The Netherlands-United Kingdom (Two seas)	39	Romania-Hungary			
13	France-Germany-Switzerland (Oberrhein)	40	Slovakia-Austria			
14	France-Italy (ALCOTRA)	41	Slovakia-Czech Republic			
15	France-Switzerland	42	Slovakia-Hungary			
16	France-United Kingdom (Manche/Channel)	43	Slovenia-Austria			
17	Germany-Austria-Switzerland-Liechtenstein (Alpenrhein-Bodensee-Hochrhein)	44	Slovenia-Croatia			
18	Germany/Bavaria-Czech Republic	45	Slovenia-Hungary			
		46	Spain-France-Andorra (POCTEFA)			
20	Germany/Mecklenburg-Vorpommern- Brandenburg-Poland	47	Spain-Portugal (POCTEP)			
21	Commony/Soyony Crock Domuklic		Sweden-Denmark-Norway			
21	Germany/Saxony-Czech Republic	48	(Öresund-Kattegat-Skagerrak)			
22	Germany-Denmark	49	Sweden-Finland-Norway (Nord)			
23	Germany-The Netherlands	50	Sweden-Finland-Norway (Botnia-Atlantica)			
24	Greece-Bulgaria	51	Sweden-Norway			
25	Caused Courses	52	United Kingdom-Ireland			
25	Greece-Cyprus	52	(Ireland-Northern Ireland-Scotland)			
26	Greece-Italy	53	United Kingdom-Ireland (Ireland-Wales)			
27	Hungary-Croatia					
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## INTERREG A Cooperation Programmes (2014-2020)

Table 83: List of the analysed cross-horder region's connergion programmes

Source: Author, 2016.

# 01 Austria-Czech Republic

The region has a regional cluster initiative in 'automobile and transport' which is shall facilitate the coordination of domestic entities in this field to develop 'cross-border enterprise networks. To contribute to a more sustainable tourism under the second priority axis "Environment and Resources", transport shall become more environmental friendly whereas tourist destinations should become more accessible for everybody. Thus the establishment of transport infrastructure (roads, bicycle ways and foot paths) to tourist destinations, if not being sufficient, can contribute to this aim. However, transport investments are declared to be solely of ancillary character. Under the fourth priority axis "Sustainable networks and institutional cooperation" it is possible to support the coordination of cross-border public transport and the expansion of the cross-border transport network (Interreg Austria - Czech Republic 2015, 9, 36f., 58).

#### 02 Austria-Hungary

Graz (AT) was added to the programme area in this funding period and is said to be an important transport node. The cross-border regions can be divided in a Northern, population growing and urban part of high economic importance and a Southern, population decreasing, rural part with low GDP per capita (with the exception of Graz). In this context also the transport infrastructure and accessibility varies. The southern part shows a low level of accessibility in road and rail transport. The Hungarian southern regions, however, made improvements in the last years and are well connected by 'EuRegio'trains to Vienna. Still also in the Northern part transport investments need to be taken because of high cross-border mobility flows and congestions. Road is the main transport mode and combined with a high number of private car users often overloaded. Neither cross-border public transport is in a good condition, nor is it in rural regions. The programme area is crossed by four TEN-T corridors: the Baltic-Adriatic corridor in the West, the Rhine-Danube corridor in the North and the Mediterranean corridor in the South (Interreg Austria - Hungary 2014, 6, 14ff.) as well as the Orient-East-Med Corridor which connects Vienna with Budapest. Transport expansions in environmentally protected areas shall be sensitive. The cooperation programme refers to the EU 2020 Strategy and the Danube Marco Regional Strategy, to relevant national and regional documents as well as projects from the last funding period and their transport targets and findings. Thus, coordinated cross-border transport planning, alternative and environmental friendly transport modes and their smooth linkage across borders shall be supported. Also the TEN-T comprehensive network ranges over several railway lines of the cross-border area which shall be upgraded. Additionally, new North-South highways are to be constructed to improve the accessibility under the TEN- programme. The cross-border region needs to improve secondary and tertiary nodes and their connection to the TEN-T. Furthermore, cross-border cycling paths are to be expanded, especially on the Hungary side. Because of the high importance of transport in this region, the cross-border cooperation programme defined the third priority axis to promote sustainable transport and develop a borderless cross-border transport without severe bottlenecks in the main transport routes ('Promoting sustainable transport and removing bottlenecks in key network infrastructures'). The capacity of the transport network is to be increased and the secondary and tertiary networks are to be linked to the TEN-T to benefit from the accessibility. User and environmental friendly transport modes are to be offered as alternatives to the individual car, made more sustainable and cross-border services are to be better coordinated and communicated. Transport is to be adapted to special user groups such as tourist and commuters. Innovative transport systems are to be applied in rural areas. Furthermore, the cross-border bicycle infrastructure shall be upgraded. A cross-border transport platform combined with regional mobility centres shall be established to coordinate cross-border services between different transport modes. Freight and passenger transport are to be facilitated. CO2 emissions are to be minimized (ibid., 6, 14ff., 23 25f. 63,67f.,94,121, 123).

#### 03 Austria-Germany/Bavaria

The cross-border region has very heterogeneous transport characteristics, some parts are highly accessible, others very remote. The cross-border region is crossed by important North-South and East-West transport axes and therewith connected very well to the TEN-Ts. Also the internal accessibility is evaluated to be in a good shape with the exception of the mountainous and fluvial areas which usually represent bottlenecks, often in cross-border sections. However, there are large transport flows across the borders because of cross-border economic, job and education linkages. Furthermore, the region's transport network is periodically overloaded because of the touristic holiday transport. The growing transport leads to strong pollutant and noise emissions especially in the Alpine valleys. A possible shift could be the support of public and environmental friendly, alternative transport modes on subregional levels. The cooperation programme considers supporting the planning of technical and intelligent systems to minimize the transport's burden; the improvement of the interoperability of the domestic

systems by coordinating the schedules and prices of the public transport offer and the development of innovative cross-border transport concepts. The negative effects of the tourist transport on the environment shall be avoided. In its third priority axis "*Förderung der Zusammenarbeit in Rechts- und Verwaltungsfragen und der Zusammenarbeit zwischen Bürgern und Institutionen*" (Support of the cooperation in legal and administrative questions and the cooperation between citizens and institutions) the coordination of transport issues can be supported to minimize obstacles as well as to develop synergies across borders and a long lasting cooperation, e.g. in the field of cross-border public services. In the first priority axis also the accessibility of places and touristic destinations can be supported (Interreg Österreich-Bayern 2014, 8, 13f. 32 49 53f.)

#### 04 Belgium-France (France-Wallonie-Vlanderen)

Regional innovation strategies are to be established across borders in the field of transport, e.g. to coordinate the individual and public transport development and freight transport. Furthermore, the energy efficiency shall be increased in the field of transport. In the second priority axis ("Accroître la compétitivité transfrontalière des PME") in which the cross-border competitiveness of SMEs shall be enlarged, also the enhancement of the enterprises' joint cross-border transport services and logistics is seen as a possible measure. The fourth priority axis "Promouvoir la cohésion et l'identité commune des territoires transfrontaliers" (Improve the cohesion and common identity of cross-border territories) also foresees the support of passenger cross-border transport mobility by harmonizing local transport service offers and developing new modes of transport like car-sharing. It shall be contributed to sustainability by minimizing urban sprawl and therewith also minimizing further road transport (Interreg France-Wallonie-Vlaanderen 2015, 6f., 11, 26, 34, 55).

#### 05 Belgium – Germany – The Netherlands (Euregio- Maas – Rhine)

The cross-border region is an international oriented region with a comprehensive logistical infrastructure with airports and multimodal ports. It consists of rural and urban areas. Transport in the cross-border region needs to become more environmentally friendly. Cross-border transport needs to become more efficient. Large parts of the Euregio shall be connected to public transport services. Also less central areas of the region shall be accessible by public transport: Therefore innovative transport concepts need to be developed. Rural areas shall be connected better to urban hubs especially across borders. A crossborder ticketing system and coordinated prices are to be established and travel information systems need to be improved. Additionally, spatial planning on the bordering national territories shall be coordinated better. The fourth priority axis "Territoriale Ontwikkeling" (Territorial Development) shall support the sustainable development of the regional mobility among others. In general it shall improve the institutional capacity in cross-border cooperation and develop strategies for cross-border infrastructures. Environmental friendly transport modes are to be supported, particularly the public transport offer is to be expanded. Public transport shall better connect touristic sites. Pilot projects and the exchange of best practices in the development of sustainable and intelligent transport systems and alternative transport modes shall be supported. (Interreg V-A Euregio Maas-Rhein 2014-2020 n.y., 1,14,16f., 20, 26, 73, 78, 90, 108)

# 06 Belgium - The Netherlands (Vlaanderen-Nederland)

In the cross-border region, the traffic intensity and the  $CO_2$  emissions are very high which has a negative impact on the environment. The region is very strong in multimodal infrastructure because of its large ports. The cross-border infrastructure needs to be improved because the roads and rail connections are often congested. This shall contribute to a better job mobility in the region (fourth priority axis: *"Inclusieve groei (arbeitsmobiliteit)"*. In priority two *"duurzame groei – energie"* [sustainable growth – energy] research can be conducted to minimize the emissions in urban mobility. The programme cannot support the construction of large scale infrastructures in bottlenecks because of financial constraints, but

aims at concentrating the funds on certain fields (INTERREG VLAANDEREN-NEDERLAND n.y., 7,11f.,30,43).

#### 07 Bulgaria-Romania

The cross-border region is divided by the Danube river in large parts. The Danube is a potential mode for freight transport; however, many parts have a low navigability so far which hinder a growing usage. Furthermore, the cross-border region does not benefit from the Rhine-Danube corridor so far. However, there is a high potential that the cross-border region's port cities will gain importance. Therefore the port infrastructure should be enhanced. Also the Orient East Med TEN-T corridor crosses the border region. Also the safety for passenger and freight transport on the inland waterways is low. The hinterland of the Danube is poorly connected to the river which hinders multimodal transport and economic growth. Multimodal transport is to be enhanced (sea-waterway, rail/road) to be more attractive. The cross-border area is crossed by a sole highway. The lower level's road and rail networks are in an underdeveloped condition and not safe. In Bulgaria, the usage of trains is decreasing whereas it is growing in Romania. Therefore the region shows a low accessibility. The environment is burdened by transport among others. The main mode of transport is the road which especially in winter is often not maintained very well. Additionally, they are often congested. Only two cross-border bridges exist which connect the border region across the Danube of which one severely needs to be renovated and thus is closed. More bridges are to be built. Cross-border cooperation and coordination of transport concepts are expected to improve the situation. Also sustainable mobility is to be enhanced and made more intelligent. In the last funding period, several projects improved the transport infrastructure. The first priority axis "A well connected region" fosters transport projects. Ending infrastructure at the borders is to be continued on the other side of the border to connect the domestic transport systems and make the infrastructure more sustainable. The regional transport shall be improved by anchoring the TEN-T corridors better in the region with secondary and tertiary networks. Also rural areas are to be connected into the system. In this context also cross-border planning shall be better coordinated. Furthermore, the transport system shall decrease its negative impacts on the environment (noise,  $CO_2$ ) and increase its safety. Therewith it refers to the Europe 2020 Strategy and EU Transport Policy. Logistics and traffic management are to be improved. Cross-border transport services are to be better coordinated, cross-border transport plans to be developed and best practices are to be exchanged besides the construction of infrastructure (Interreg Romania - Bulgaria 2014, 1,15ff.,21,27,30,33ff.).

#### 08 Czech Republic-Poland

The cooperation programme expects the establishment of new or upgraded roads. Transport is not among the priority axes. (European Commission 2017e).

#### 09 Estonia-Latvia

The cross-border region is crossed in North-South direction by the 'Via Baltica' and the 'Via Hanseatica', two important transport routes. Furthermore, the region is equipped with three ports which are relevant for the European trade with Russia. Transport and logistics belong to the most important service sectors of the cross-border region. So far, Estonia and Latvia have not coordinated their maritime strategies although they share the same sea basin (Gulf of Riga). The cooperation programme shall especially support maritime transport. The existing harbours are not located close enough to each other which hampers safe transport flows to Riga. Therefore the third priority axis "Better network of harbours" shall support the increase of the number of harbours along the coast. Especially the existing small harbours lack a proper and safe technical infrastructure and standard services which can burden the environment. These infrastructures and services shall be upgraded to be ready for climate change challenges and to create a sustainable common harbour network between the two countries which contributes to economic growth. Also the cross-border region shall develop common marketing

measures for the port network. This shall contribute to a better regional mobility and connection of the cross-border region through the sea. In the last funding period a project was funded on common maritime planning in the region. This issue shall be further investigated. The programme document refers to the Europe 2020 Strategy by the aim to contribute to growth by these measures, the Macro-regional strategy of the Baltic Sea Region by contributing to the connection of the Baltic Sea Region, and two domestic strategies. The fourth priority axis also targets cross-border mobility, but less from a transport point of view than of education and labour market cooperation (Interreg Estonia-Latvia 2014, 2f.,5f.,8f.,18,53ff.)

#### 10 Finland-Estonia-Latvia-Sweden (Central Baltic)

Besides the four capital hubs in the cross-border region with good mutual and international accessibilities there are large peripheral and remote areas, e.g. islands being part of the region with low accessibility levels. This picture goes hand in hand with high differences in the economic development of the cross-border region's parts. The cross-border region is divided by the Baltic Sea and neighbours the Russian territory. Logistics and transport are evaluated as sector with high potential for the crossborder region. The transport network of the cross-border region is said to be in a good shape with a variety of different transport modes (road/rail/air/sea/inland waterways). However, these modes need to be better connected and challenges exist especially in terms of remote regions. Therefore, transport between rural and urban regions is to be improved. Maritime transport is very relevant for the connection of the border region across the sea for both passenger and freight transport. The region has a high relevance for freight transport to and from Russia. A high percentage of all transport modes is dependent on fossil fuels and thus emits  $CO_2$  and other forms of pollution. These are to be minimized by fostering alternative fuels and sustainable integrated transport systems. The services and infrastructures of the existing small ports of the cross-border region need to be enhanced to contribute to a higher accessibility. Also innovative technologies can be applied to make the ports more efficient. The third priority axis "Well-connected region" shall support the further development of the cross-border region's transport development. The cooperation programme refers to the Europe 2020 strategy's aim of reduced  $CO_2$ emissions which shall be achieved by the third priority axis and the Baltic Sea strategy's aim which shall improve the connections within the Baltic Sea Region. Cross-border cooperation shall be fostered between the domestic responsible actors for transport planning. Furthermore, the domestic transport systems are to be better interconnected to increase the interoperability. The travel time shall be reduced and attractiveness enlarged. Also as part of the second priority axis "sustainable use of common resources" envisages an improved urban planning in the cross-border region which shall contribute to a better transport network within cities and their hinterland. Also existing freight and passenger transport corridors in the region are to be improved or corridors newly established (Interreg Central Baltic 2014, 6, 9, 11ff. 14 18ff. 22 33f. 45).

# <u>12 France-Belgium-The Netherlands-United Kingdom (Two Seas)</u>

The cross-border region is a maritime cross-border region and divided by the sea. Therewith the accessibility is challenged. The cooperation programme partially concentrates its investments on these challenges connected to the sea. The Dover Strait/ Pas de Calais Strait as well as the Channel tunnel are defined to be of high importance for the cross-border linkage of the hinterland and the coastal zones. The urban areas of the cross-border region have a good level of accessibility. The general accessibility is also evaluated to be good. The  $CO_2$  emissions in the cross-border region are very high especially in congested urban nodes. The region could benefit from the establishment of clusters in the field of (sea) transport and logistics and transport technologies. In the transport sector, the programme fosters the enlargement of resource efficiency. The first priority axis ("Technological and social innovation") can foster research (smart specialisation) in the field of transport and ports. The second priority axis "Low

carbon technologies" fosters projects that contribute to the reduction of  $CO_2$  emissions in transport (Interreg 2 Seas 2015, 6,8,10,19,25,35)

#### 13 France-Germany-Switzerland (Oberrhein)

This cross-border region has a high density in terms of population, employment and highways and a high GDP per capita. Furthermore, it is strongly characterized by cross-border flows and functional linkages. A peculiarity of the region is the involvement of Switzerland as non-EU Member State which has a long tradition. The region is evaluated to be highly accessible compared to the residual EU which is very relevant for its economic position. It is crossed by the highly frequented Rhine-Alpine TEN-T transport corridor and other important passenger and freight transport axes. Therewith the transport network is often congested and has negative effects on the environment (air and noise pollution, high land consumption) especially in urban centres. Because of the strongly cross-border mobility and environmental burden, it is important to develop and expand environmental friendly cross-border transport systems. Especially cross-border transport services and alternative sustainable transport modes (e.g. bicycle, foot, car-sharing) across-borders are to be planned and made more user-friendly in badly connected parts of the region in which the individual car share is very high. Also information and ticketing systems about the cross-border services available are to be upgraded or developed. These initiatives should be taken into account by regional development planning. The domestic parts of the cross-border region are separated by the Rhine river which can be seen as transport and accessibility barrier. The involvement of Switzerland is of high strategic value for the transport development as it connects the region to the Alps. Axis B "Nachhaltiges Wachstum am Oberrhein - Eine umweltverträgliche Entwicklung des Raumes, der Wirtschaft und der Mobilität auf grenzüberschreitender Ebene fördern" (Sustainable Growth on the Upper Rhine - Foster a environmental friendly development of the region, the economy and the mobility on cross-border level) of the cooperation programme concentrates on the development of a sustainable environmental friendly transport system based on high multimodality and low CO<sub>2</sub> emissions to minimize conflicts between transport growth and environmental protection. It shall therewith contribute to the Europe 2020 Strategy. Furthermore, investments into the infrastructure can be supported to remove bottlenecks. The efficiency and interoperability of the transport across borders shall be enlarged. Innovative technologies like electro-mobility shall be tested and multi-modal platforms developed (INTERREG V Oberrhein 2014-2020 n.y., 6, 9f. 14, 20f. 31, 49, 60ff.).

#### 14 France-Italy (ALCOTRA)

Based on the Europe 2020 Strategy and the ERDF regulation, the cross-border region aims at supporting investments into innovative technologies which support the cross-border transport and make it more efficient, environmental friendly and the services broader. Environmental, cultural and touristic attractions in remote areas are often not accessible by public transport. To make them more attractive and contribute to a sustainable tourism alternative mobility solutions have to be found which also improves the accessibility of these areas' inhabitants to cities. In the third priority axis "*Attractivité du territoire – Conservation environnementale et valorisation des resources naturelles et culturelles, par le biais du développement du tourisme durable et de l'économie verte*" (Attractiveness of the territory – Environmental conservation and enhancing of natural and cultural resources by supporting sustainable transport and green economy) the aim is to support the reduction of  $CO_2$  emissions by promoting sustainable urban multimodal mobility among others. Therefore, strategies and mobility plans shall be developed for the cross-border sections of the border region to make the infrastructure and services more efficient and environmental friendly. Additionally, alternative transport means like car-sharing, bicycles shall be implemented based on the areas' needs. Furthermore, studies on the mobility within the cross-border region shall be conducted to define appropriate innovative solutions for the existing infrastructure

and an exchange of experiences in the field of transport shall be fostered across borders. Especially, remote areas are to be connected to urban hubs (Interreg ALCOTRA 2015, 15, 2043, 52f.).

### 15 France-Switzerland

This cross-border region consists of a Member States and a non-EU Member State. The cross-border mobility has strongly increased in the cross-border region but it has been unilateral: the number of French citizens which work in Switzerland is growing more and more. Therewith also the environmental burden (CO<sub>2</sub> and noise emissions etc.) has grown. Only low numbers of job commuters use public transport. Except of the high public transport to Geneva the public transport offer is low. Different transport modes are often not sustainably linked and alternative transport modes' like the bicycle or walking infrastructure sometimes are not available or not safe enough. Congestions and negative environmental impacts of the transport should be minimized by fostering alternative transport modes to the individual car. Remote and mountainous parts of the cross-border region have a very low accessibility whereas urban areas are congested and suffer from negative transport impacts. Because of these challenges, the third priority axis "Encourager le transport durable" [Encourage sustainable transport] supports the development of sustainable transport. Under this priority a comprehensive transport system is to be established which includes different well interconnected transport modes as alternative to the private car. Especially rail transport shall be fostered because of the existing infrastructure and already planned projects - few bottlenecks still exist in traffic nodes. Investments can focus on making the French and Swiss rail network fully compatible and upgrade or revive former rail services. The information on cross-border transport services shall be improved and a common ticketing system developed. All these means shall make public transport more attractive. Furthermore, two major projects are to be funded: a cross-border railway line (Besancon-Chaux de Fond) shall be supported to ensure its continuity and a common railway service shall be established with common tickets, information etc. for a certain project (CEVA). The programme therewith directly relates to a TEN-T corridor (North Sea Mediterranean) which is crossed by the regional upgraded railway line. The cooperation programme refers to domestic and subregional strategies, INTERREG B programmes and the Alpine macro region which also aim at achieving sustainable transport (Interreg France-Suisse 2014, 16ff. 24 55ff. 94).

## 16 France-United Kingdom (France (Channel) England)

The cross-border region is separated by the sea. The subregions are very diverse: rural, urban, semiurban and remote. Both involved countries aim at contributing to the development of transport services in their Partnership Agreements with the European Commission. The cross-border region contains an economic focus on transport, logistics and ports among others. The energy efficiency is not very high which is caused by the transport sector among others. The Channel between France and the UK is frequently used. It is considered to be a possibility to shift a certain transport load from road to the sea and make use of multimodal transport. Furthermore, innovative ideas shall be developed to minimize  $CO_2$  emission while making transport more energy efficient. The environment is strongly burdened by the high level of transport. Under investment priority one "Support innovation in order to address the economic and societal issues facing the FCE area" business investments shall be promoted, among others also in the specialisation 'transport and ports'. The generation of innovations, networks and clusters shall be developed in this field. Besides that no further investments into the transport development are foreseen (Interreg France-United Kingdom 2014, 2,6,9f.,17,24,30).

## 17 Germany-Austria-Switzerland-Liechtenstein (Alpenrhein-Bodensee-Hochrhein)

The cross-border region is situated around Lake Constance (Bodensee) and contains also Alpine areas. The status quo of the transport system is evaluated not to be satisfactory in the border region and its negative effects on the environment considered being high, like the air pollution. So far, domestic spatial

and transport planning are not sufficiently coordinated. The transport infrastructure is very cost intensive, therefore the regions should cooperate across borders to commonly use them. Also the connection of the regional transport network to the TEN-T as well as the connection between urban hubs across the border is not sufficient. However, a positive feature is the existence of a cross-border transport ticket for the public transport. The second priority axis "Umwelt, Energie & Verkehr" [environment, energy, transport] includes the transport development of the cross-border region as objective. Therewith the negative impacts of transport on the environment as well as air and noise pollution are to be minimized. Among others infrastructural investments should contribute to this aim. Urban public transport systems are to be made more sustainable and clean. Also alternative modes of transport shall be applied. The rolling stock can be renewed. Also freight transport shall become more environmental friendly. The cross-border rail network shall be electrified and a cross-border public transport offer developed. In the third priority axis, also cross-border public transport can be supported because this axis aims at improving the cooperation of institutions in the border region. The cross-border region is part of the Alpine Space where a macro-regional strategy is to be developed. In this strategy also transport development is a priority (Interreg Germany-Austria-Switzerland-Liechtenstein 2014, 9,10,12,14,17,18,19,66ff.,73,101f.,126).

### 18 Germany/Bavaria-Czech Republic

The spatial development in Bavaria and Czech Republic is very different. Whereas, the usage of empty space is growing in Germany, in the Czech Republic it is rather decreasing. Therefore it is said to be important to cooperate across borders to coordinate the spatial and transport development. Additionally, highly accessible and very remote areas belong to the cross-border region. To protect the environment, the negative effects of transport growth are to be minimized under the second priority axis "*Erhaltung und Schutz der Umwelt sowie Förderung der Ressourceneffizienz*" [Preserve and protect the environment and foster the resource efficiency]. The fourth priority axis "*Nachhaltige Netzwerke und institutionelle Kooperation*" [Sustainable networks and institutional cooperation] foresees among others to improve cooperation in the field of public transport, including the coordination of public services, common ticketing systems, timetables and marketing. This shall contribute to a higher shift of individual road transport to the public transport offer. Further support in transport development is not envisaged (Interreg Freistaat Bayern – Tschechische Republik 2015, 9, 12, 21 37, 60).

### 20 Germany/Mecklenburg-Vorpommern-Brandenburg-Poland

The cross-border region is strongly shaped by demographic change and population shrinkage which makes it difficult to maintain the provision of public services. Several ports and airports of the crossborder region belong to the TEN-T network (Baltic-Adriatic and Scandinavian Mediterranean Corridor). Different roads and three cross-border railway tracks connect the cross-border region with neighbouring urban hubs. Especially the rail network needs to be enhanced being partly not electrified or limited to one track. Also the roads need to be upgraded in the Polish part of the region. The two parts of the crossborder region are both situated in the periphery of their countries and separated by the border river Oder and the Stettin Lagoon which hampers the transport development across borders. The preservation of public transport offers is getting more and more difficult because of decreasing numbers of and ageing inhabitants and decreasing demand. Although several transport projects were funded in the last funding periods, investments are still necessary. The second priority axis "Verkehr und Mobilität" aims at improving the cross-border accessibility and mobility. It can be invested in the road cross-border infrastructure to complete missing links, develop new and upgrade existing ferry connections across the river and the lagoon. This shall help improve commuter and tourist connections as well as the accessibility of public services – also by introducing a better public transport offer. Additionally, the safety is to be enhanced. Furthermore, the quality of the connections to the TEN-T shall be enhanced by

developing secondary and tertiary nodes and efficiently linking them to the corridors. The infrastructure shall also be linked to the Stettin metropolitan region and touristic centres. The aim of these investments is to improve the overall accessibility of the cross-border region in the EU and the shortening of travel times. Additionally, transport shall contribute to a lower usage of resources, lower environmental burden and CO<sub>2</sub> emissions and less congestion and therewith to the Europe 2020 Strategy objective of sustainable growth. Common transport concepts are to be established across borders. Because of its rural character, the road connections are most important to enlarge the accessibility. Cross-border coordination of new transport developments is fostered. In the fourth priority axis "*Grenzübergreifende Kooperation*" (cross-border cooperation) it is also possible to support cooperation for the establishment of cross-border public transport and transport modes with low CO<sub>2</sub> emissions (Interreg Mecklenburg-Vorpommern/Brandenburg - Polen 2015, 9f.,15,18,20,23,25,43ff.,59,62f.,77).

### 21 Germany/Saxony-Czech Republic

The cross-border region possesses a good density of the road and rail network and the cross-border transport connection was improved in the last years and improved the region's accessibility. Still several parts of the cross-border rail and road network are not as efficient as possible and need to be completed. Touristic destinations of the region need to be made more accessible. The quality of public transport varies within the region and was upgraded in the last years. It should be further upgraded dependent on individual needs and the demand. Also the local transport shall be effectively linked to the regional transport system. Innovative transport solutions are to be developed for the region's remote and rural areas. The transport system shall also facilitate cross-border job mobility. Priority axis two "Erhaltung und Schutz der Umwelt sowie Förderung der Ressourceneffizienz" [Preservation and protection of the environment and the support of resource efficiency] will among others support projects that aim at developing a better cross-border transport connection of touristic sights and the cross-border region in general. The fourth priority axis "Verbesserung der institutionellen Kapazitäten von öffentlichen Behörden und Interessenträgern und der effizienten öffentlichen Verwaltung" [Improvement of the institutional capacities of public focussedities and interested parties and an efficient public administration] can also support transport projects in the field of public transport. The coordination of public transport across borders and the establishment of new lines shall be fostered as alternatives to the individual transport (Interreg SN CZ 2015, 16,18,20f.,28,30,55ff.,78,81).

### 22 Germany-Denmark

The cross-border region comprises the earlier two cross-border regions 'Syddanmark-Schleswig-KERN' and 'Fehmarnbelt' from the last funding period. The cooperation area is very heterogeneous: Several parts of the region are rather rural and peripheral whereas some are strongly urbanized. The offer of public transport services in the rural areas is not good because of with the mobility and accessibility is limited. The cooperation area contains important transport connections between Germany and Denmark and further Scandinavia like the traditional 'Jütlandroute' and the 'Vogelfluglinie'. So far, the cross-border region is partially divided by the sea. However, until 2021 a railroad tunnel shall be established between Fehmarn and Lolland and directly connect the domestic parts of the region. The cross-border mobility needs to be further expanded. The region is specialized in the field of transport, logistics, renewable energy and electro-mobility and cluster initiatives exist. The cross-border region could further make use of its strategic position and vicinity to large urban hubs (especially Hamburg and Copenhagen) in the field of transport and logistics. The second priority axis "Nachhaltige Entwicklung" [sustainable development] of the cooperation programme foresees the support of the generation of sustainable and environmental friendly transport and logistic concepts with alternative fuels which minimize the  $CO_2$  emissions of the strong transit freight transport through the cross-border region. The fourth priority axis "Funktionelle Zusammenarbeit" [Functional cooperation] allows supporting the increase of institutional capacity in cross-border (public) transport. Here, the development of cross-border strategies, concepts and actions as well as the exchange of best practices can be supported. Furthermore, for cross-border public transport the communication of existing services, common ticketing systems etc. can be developed. The programme does not support investments in the transport infrastructure (Interreg Deutschland - Danmark 2014, 3,8,11f. 14 26ff. 33 41ff. 47, 57).

### 23 Germany-The Netherlands

In the first priority axis "*Erhöhung der grenzüberschreitenden Innovationskraft im Programmgebiet*" [Increase of the cross-border innovation power in the programme area] among others environmental friendly efficient logistics shall be fostered by promoting the cross-border cooperation about multimodal concepts and infrastructures. Also the development of transport solutions for alternative transport modes and higher loadings shall be supported. Bottlenecks and CO<sub>2</sub> emissions shall be reduced, the hinterland shall be connected with the centres and cross-border commuter or commercial flows shall be optimized. Additionally, the cooperation with the cross-border region's stakeholders shall be enhanced among others in cross-border public transport (Interreg Deutschland Nederland 2015, 31,34,38).

### 24 Greece-Bulgaria

The cooperation across borders has a long tradition in the region. It has a very low ratio of GDP per capita. The region is very heterogeneous and the Greek regions are more economically prosperous than the Bulgarian regions. The cross-border region is crossed by important fossil fuel pipelines for the EU. The cross-border region contains three ports and airports of high importance. Furthermore, the road network was improved in the past (several roads in Bulgaria and cross-border connections to Greece) and is very relevant for the region's accessibility. However, tertiary infrastructure is often not in a good shape, especially in Bulgaria, and needs to be repaired. Particularly the bad conditions of mountain road crossings hamper cross-border transport. Some planned transnational connections have not been established so far. Rail and multimodal infrastructure is not, or solely rarely, existing with the exception of the ports and airports. Railway investments cannot be supported by the cooperation programme because of the high costs. Also the public transport offer in general and particularly across borders is very low. Because of missing alternatives to road transport, the environmental burden because of high pollutions of transport is very high and especially border crossings are often congested. The region is connected to the TEN-T Orient East Med corridor and its connection to the sea is seen as an opportunity. However, so far the internal accessibility is not in a good condition which hinders efficient passenger and freight transport in the region. Special cross-border crossings are still lacking. Secondary transport systems which shall connect to the TEN-T often are in a bad condition and considered to be unsafe. The third priority axis "A better connected cross-border area" shall support the development of a higher accessibility of the cross-border region. In this context, new roads are to be established as between Plodvivi (BG) and Xanthi (GR) as well as between Dimari (GR) and the Bulgarian border. Existing roads are to be linked to the TEN-T. The cooperation programme shall contribute to smart growth by facilitating the development of efficient cross-border transport connections and integrating the domestic transport systems. Inclusive growth shall be reached by improving the higher internal accessibility of the region and increasing the mobility. By minimizing the transport environmental burden sustainable growth shall be supported. Transport and logistics are defined as a potential innovation area of the border region's economy to develop technologies which minimize the environmental harm. The cooperation programme also refers to the INTERREG B MED programme which also aims at fostering minimized CO<sub>2</sub> emissions in transport (Interreg Greece-Bulgaria 2015, 1, 4f., 6, 9ff., 14, 18, 25f., 76f., 110, 141).

### 25 Greece-Cyprus

The cross-border region consists solely of Greek and Cypriot islands. It dedicated the second priority axis on "Efficient use of energy and sustainable transport". The investments should improve the

accessibility of the region and enhance the transport safety (Interreg Greece-Cyprus n.y.; European Commission n.y.a).

### 26 Greece-Italy

The cross-border region is divided by the sea. It can be considered as gateway for EU transport networks from the Ionian to the Adriatic Sea. This can be seen as economic advantage. However, at the same time the region is heavily polluted by the transit transport. The involved countries show the highest numbers of sea transport passengers. However, the transport operation of the ports, airports and railways shows a small competitiveness. The transport modes are said not to be efficiently linked. The third priority axis "Multimodal sustainable transport system" is dedicated to the transport development of the cross-border region. Therewith cross-border connections in the region are to be improved, the transport shall become more multimodal, the sea transport across border shall be coordinated and environmental friendly transport innovations shall be developed to minimize transport pollution and make it more sustainable. In the sea transport the safety shall be improved and the offer of short-sea shipping and ferries is to be made more frequent to relieve road transport. Furthermore, the region shall improve its internal and external accessibility. The cross-border transport strategies shall be better coordinated with existing regional and national strategies and plans. The transport systems of the two countries shall be made more interoperable and interconnected. Transport networks are to be established among the actors involved in the transport development. Furthermore, public transport services are to be supported and benefit from renewable energies. Besides passenger transport also freight transport and logistics systems shall be upgraded and made more efficient. New innovative technologies and information systems shall be developed and alternative fuels promoted. More freight transport shall be shifted from the road to alternative and more environmentally friendly and energy efficient modes, e.g. rail and sea, electromobility, bicycle etc.. The programme also refers to the Adriatic and Ionian region strategy (EUSAIR) and its transport objectives which are shared in the cooperation programme. The cooperation programme shall be coordinated with the development of the TEN-T corridors by connecting remote regions to the TEN-T and therewith complement the Connecting Europe Facility (Interreg Greece-Italy 2015, 7f.,11,14,17f.,20, 22, 64ff.,71,90f.,112).

### 27 Hungary-Croatia

The cooperation area of the Hungary-Croatia cross-border region is mainly rural and lacks centres with urban functions. The transport accessibility differs in the cross-border region but is in general very weak because of the region's peripherality. In the west, the region is crossed by transnational infrastructures; however, the infrastructures are often congested. The middle of the programme area has a very low accessibility and the eastern part is equipped with inland waterways. Small ports exist on the rivers Drava and Danube. However, it is limited to small vessels. The cross-border region has very few crossborder connections. For most of the territory, the region is separated by the Mura and Drava rivers so that ferries or bridges are needed to link the two parts of the border region. East-west transport even within the domestic parts of the border regions is not easy because of missing efficient infrastructure. Therefore, road developments are planned. Cross-border rail infrastructure does not have a high quality and is not electrified. Only one connection exists between Zagreb and Budapest. Because of a low demand cross-border bus lines were discontinued or are only available in limited periods. Two airports are situated in the area with mainly European destinations. The second priority "sustainable use of natural and cultural assets" promotes the enhancement of the accessibility of touristic sights in a sustainable and environmentally friendly way. In the third priority axis "Cooperation", projects that foster the cooperation in the field of public transport services across borders can be funded. For instance the timetables of services on both sides of the border can be coordinated (Interreg Hungary-Croatia 2015, 2, 10, 16, 41 58, 61).

### 28 Italy-Austria

The cross-border region is influenced by a strong transit traffic which has a negative impact on the region's air quality. Because of its topography (the Alps) the region reacts very sensitive on negative transport impacts like noise and pollution. Some pilot projects have shown innovative ideas to reduce the environmental harm by providing alternative transport modes. Cross-border cooperation could improve the interoperability of the different transport systems and better coordinate as well as inform about cross-border service offers. Furthermore, innovative transport concepts to minimize climate change effects could be developed. The third priority axis "Verbesserung der institutionellen Kapazitäten [...]" [Improvement of institutional capacities] fosters the permanent cross-border cooperation in the field of transport and logistics among others, especially in public transport provision but also in the field of transport safety, and infrastructure maintenance. Furthermore, transport data is to be exchanged to develop cross-border transport information systems. The stronger usage of alternative transport modes shall be promoted through a better cooperation across borders. The fourth priority axis "Schutz und Inwertsetzung des Natur- und Kulturerbes" [Preservation and valorisation of natural and cultural heritage] shall among others minimize the negative impact of tourist traffic on the environment. The programme area refers to the three macro regional strategies that comprise parts of the border region (Interreg Italia-Österreich 2015, 12f., 25, 44, 51, 53, 75).

### 29 Italy-Croatia

The cross-border region is situated around the Adriatic Sea so that despite being connected over main land, the region is also divided through the sea. Fishing is an important business in the Italian and Croatian economy. Therefore the appropriate infrastructure and logistics are part of the region's transport infrastructure. The Adriatic Sea suffers from transport pollutions. The sea is traversed by oil transport routes which is another risk factor for further pollution. The main transport flows take place on the road infrastructure. The region contains several small ports on the Adriatic coast. Some of them, especially on the Italian side, are very important hubs for freight and passenger transport. The Croatian side is less important for freight because of its ports' lacking intermodality. The connection of the ports to their hinterland is often weak and the transport modes are often not sufficiently connected. The sea transport is often congested, particularly in the tourist season and the demand for further transport services is growing. Transport is very relevant for the region's economy. Peripheral areas of the crossborder regions have a low accessibility. Therefore the management of the transport flows, services and infrastructures needs to be improved. Waterway transport is seen as a potential alternative transport mode which is less environmental harmful and more sustainable. So far, only few sea routes connect the other sides of the border. These need to be increased and the coordination (joint information and ticketing) improved. In the Italian part of the region existing rail and motorways make the area accessible. The Croatian part is accessible through the motorways and the sea transports through the harbours. The Mediterranean TEN-T corridor crosses the region and entails parts of the cross-border region's rail and motorway corridor. Because of the high relevance of transport in the cross-border region, the fourth priority axis supports 'Maritime transport': sea transport services and nodes shall increase their quality and become safer, more environmental friendly and sustainable.  $CO_2$  emissions shall be minimized. Additionally, the ports shall become more intermodal and use alternative fuels. Among others, the rail connection to the roads can be fostered. This focus shall contribute to sustainable growth of the Europe 2020 Strategy and the macro-regional strategy of the Adriatic and Ionian Region. Especially the sea transport between the Italian and Croatian part is to be expanded to contribute to a higher cross-border mobility in the field of labour, education, commerce and other economic activities. Also transport data is to be exchanged to develop a common multimodal intelligent management and information system. In the third priority axis "Environment and cultural heritage" green technologies

are to be developed to minimize environmental harm of the sea (Interreg Italy-Croatia 2014, 6, 8ff. 13f. 19, 22 64, 75, 80).

### 30 Italy-France (Maritime)

The cross-border region is situated at the Mediterranean Sea and contains coastal areas as well as islands which are separated through the sea. Compared to the earlier funding period the region was enlarged by a French area situated at the coast. The sea passenger and freight transport are very important for the cross-border region. Besides that road and ait transport are the most important transport modes. The cross-border region contains several ports which contribute to the pollution of the sea because of their waste production and the  $CO_2$  emissions and fuels of the ships. The coast line of the cross-border region is not connected very well with its hinterland. The traffic is concentrated on the main transport routes and urban centres and inefficient and congested, particularly in the touristic season. Also the sea transport is sometimes congested which further increases the noise and air pollution. Congestions should be avoided and alternative fuels be promoted to increase the transport network's sustainability. The region is not very well connected to the TEN-Ts although three corridors touch parts of the cross-border region except of the islands (North-Sea Mediterranean, Rhine-Alpine and the Scandinavian-Mediterranean corridor). Secondary and tertiary transport networks need to be better connected to the TEN-T. Additionally, the transport in general, and the ports in particular, have not been sufficiently multimodal so far, only few multi-modal platforms exist. The achievement of the Europe 2020 Strategies' aim of sustainable growth shall be achieved by minimizing the environmental harm of transport, applying innovative solution for public transport, using information and communication technology and by better linking the transport network to the TEN-T and making it more accessible. The isolated islands should be better connected mutually and to the residual transport network. Because of these transport challenges, the third priority axis "Amélioration de la connexion des territories et de la durabilité des activités portuaires" (Improvement of the territorial connection and the sustainability of the ports' activities) of this cooperation area focuses on transport development. Two main aims are to be achieved: first, the better transport connection to the TEN-T and across borders, and second, the environmental viability of the ports shall be improved by making them more multimodal and by applying intelligent management systems among others. Studies, concepts and action plans can be developed and investments can be taken in the field of innovative transport services to establish multimodal hubs, sustainable energy, the reduction congestions in ports and the development of logistical platforms. The cooperation programme refers to several EU directives and white papers on sea transport which should be implemented in the cooperation area (Interreg Marittimo-IT 2015, 2,12ff., 24, 28ff., 40, 95, 97ff.).

### 31 Italy-Malta

The cross-border region comprises the islands of Malta and Sicily which are separated by the sea. The region is mainly rural and peripheral which leads to economic challenges in the competitiveness of the region's enterprises. The transport systems of the two national parts of the region are not connected very well. The region has six airports and several ports. Two ports are part of the TEN-T. Transport in Malta leads to the highest air pollution at EU level. In the last funding period few projects were financed in the field of transport and accessibility because of strong disparities between the two islands and too few funds to react on these disparities. Therefore the cooperation programme for the current funding period does not foresee any support of transport development (Interreg Italy-Malta 2014, 8f.,31,37).

### 32 Italy-Slovenia

The cross-border region does not provided cross-border public transport services. Especially, there are not train connections across the border. The railway network in both parts needs to be improved. The usage of railway in passenger transport in Italy is increasing whereas it is decreasing in Slovenia. In

freight transport the importance of trains, however, is growing. The distribution of the railway network in both countries is on an intermediate European level. The region contains several ports among which three belong to the TEN-T network and are important logistical platforms for the region and the EU. Their integration in the core network shall be supported. Besides that, the ports need to improve their connection to their hinterland and provide multimodal solutions for the connection to land transport, particularly rail. The road network' accessibility differs among the subregions. It has been growing in Slovenia because of earlier investments and is in general considered to be in a good condition in the whole cross-border region. Peripheral mountain regions, however, are not easily accessible. Slovenia's roads are strongly used because of its importance as transit country. Road is the most important mode for freight transport and often congested. The more environmental friendly rail and sea transport is used less. Intermodal transport is seen as potential solution for the transport congestion challenges. Public transport needs to be enhanced. The cross-border region has high potentials to become an important logistical hub for the EU because of its infrastructure. It is connected with two TEN-T corridors that cross each other in the region (Baltic-Adriatic and Mediterranean corridors). The investments in the transport infrastructure on both sides of the border need to be coordinated to ensure economic growth and minimize the negative environmental effects. The cooperation already founded a common logistical association on North Adriatic ports between four port cities in the border region. Also the cross-border connections between the two countries need to be improved. It is envisaged to establish a cross-border logistic platform between Gorizia and Nova Gorica. Innovative services need to be established in public and sea transport. To contribute to sustainable growth the modal shift from road to alternative transport modes and public transport needs to be promoted, whereas the latter needs to become more attractive and accessible. Remote areas are often not connected well to the transport network. The transport planning of both countries needs to be better coordinated taking into account the TEN-T. Also the three major ports should cooperate. With the second priority axis "Cooperating for implementation of low carbon strategies and action plans" of the cooperation programme the environmental effects of transport shall be minimized by developing sustainable and innovative ways of mobility in cities with a high accessibility. Under this goal also port infrastructures should become more efficient and connect them better to their hinterland. Sustainable urban mobility plans are to be developed in cross-border exchange of experiences and implemented. The shift from the individual car transport to public transport shall be promoted to make transport more sustainable and safe and decrease congestions. Intelligent transport systems and services shall be applied. Walking and bicycling are to be promoted. Touristic sites shall become more accessible with environmental friendly transport. Rural areas are to be connected better with urban hubs. Also freight transport shall become more sustainable and multimodal. Also the fourth priority axis "Enhancing capacity building and cross-border governance" can support projects which aim at developing ideas on a sustainable transport system to test them. The cooperation programme refers to the macro-regional strategy of the Adriatic and Ionian region and the Alpine Region and sees synergies in the field of transport development of the region (Interreg Italia - Slovenia 2016, 18,20f.,24,26, 30, 32,51f.,54, 84, 88, 108).

### 33 Italy-Switzerland

Under the third priority axis "*Mobilità integrate e sostenibile*" [Integrated and sustainable mobility] the cross-border programme fosters the cross-border region's transport development. The cross-border transport mobility shall become more efficient, environmental friendly and sustainable, CO<sub>2</sub> emissions are to be minimized. Multimodal transport is to be fostered and alternative transport modes to the road like sea and air transport shall be combined better. Sustainable transport systems are to be developed. Also the public transport shall be promoted by improving its attractiveness and accessibility. (Interreg Italia – Svizzera n.y.a)

### 34 Latvia-Lithuania

The cross-border region is situated at the Baltic Sea but connected on the land. The region is mainly rural. The region is crossed by the important transport routes Via Baltica and Via Hanseatica. Also the region's ports are relevant for the transport network. The road infrastructure in the cross-border region is said to have a low quality which hinders cross-border labour mobility and economic growth as well as the reduction of disparities in the region. Four cross-border roads exist between the two countries and their main centres. However, further road improvements need to be done in predefined sections to improve the regional transport flows between several centres:

- Bauska-Bērzi (LV) Vileišiai- Žeimelis (LIT)
- Jēkabpils–Nereta (LV) Suvainiškis Pandėlys
- Ezere–Embute–Grobiņa (LV) Mažeikiai (LIT)

The accessibility, safety, mobility and travel time are to be reduced to increase economic benefits and the linkage of the two domestic parts of the cross-border region. The first priority axis "Sustainable and clean environment through cooperation" supports the development of cross-border services, also on the field of transport. Also the negative impact of transport on the environment needs to be minimized by supporting green infrastructure. The second transport priority "Support to labour mobility and employment" fosters projects which contribute to a higher cross-border mobility. In this context regional cities are to be better connected by investing in the above named road infrastructure. This shall also improve the safety. The cooperation programme refers to the macro-regional strategy of the Baltic Sea and wants to contribute with its transport projects to the Baltic Sea Region's priority 'Connect the region' (Interreg Latvia-Lithuania 2015, .1f., 5f., 25, 28, 39, 43ff. 86f.)

### <u>35 Lithuania-Poland</u>

The transport sector is very important in the cross-border region and could become a cluster for specialization. Public cross-border transport needs to be expanded. However, the programme does not refer to transport development in its priority axes and aims and therefore does not foresee investments into the transport development (Interreg Lithuania-Poland 2015, 8f.,13).

### 36 Poland-Denmark-Germany-Lithuania-Sweden (South Baltic)

The cross-border region is divided by the sea but consists also of regions that are connected over land. However, the sea is also considered as a barrier for the internal linkage of the region. Large parts of the region are evaluated to have a poor accessibility because of highly scattered villages and rather rural and peripheral structures the distances to urban hubs are often very far. The new Member States Poland and Lithuania have been supported in the last years by large investments in the upgrade of their transport infrastructures lagging behind. Still disparities exist – also in the degree of environmental friendly solutions. The Nordic countries are here more advanced and innovative. In the new Member States the dependence on the individual car is very high and has recently grown further. Passenger rail transport is very rarely used whereas the in the old Member States the share of rail has grown. Because of theses differences it is considered to be relevant to exchange experiences and best practices in the field of sustainable cross-border transport within the region. The internal transport of the cross-border region has grown and is mainly based on road transport despite the EU policy transport goals of modal shift. Therefore, the share of public transport and multimodal interconnected freight transport systems across borders need to be expanded and made more efficient and attractive. The environment of the coastal and urban areas is burdened among others by transport concentrations. Despite innovative ideas for the use of renewable energies and alternative fuels, the implementation is often hampered because of technical and administrational challenges, also in the field of transport. Therefore transport needs to become more environmentally friendly. The region is crossed by two TEN-T corridors: the Scandinavia Mediterranean and the Baltic Adriatic corridor. As they cross the region solely in the North-South direction they do not

foster the East-West connection of the region despite its growing regional importance and existence of trade relations. The East-West transport flows lack efficiency and environmental friendliness. Especially the transport connections across the sea from one sub region to the other by rail and ferry are not efficient and need to be improved. Transport development is to be enhanced in the cooperation programme's third priority "Improving cross-border connectivity for a functional blue and green transport area" to improve the internal connectivity and make the transport more environmentally friendly. Sustainable, innovative and alternative transport forms are to be developed across borders with the support of the programme. Additionally, the transport safety is to be increased. The intermodality of freight and public passenger transport across borders is to be increased. The systems and services are to be coordinated and promoted better. Innovative ideas for sustainable and environmental friendly transport shall be developed, tested and exchanged. Furthermore, cross-border transport is to be improved by common ticketing, and information systems as well as schedules to contribute to a higher compatibility of the transport services. Also remote areas are to be connected to flexible public transport systems. Also intelligent transport systems are to be applied. The fourth priority axis "Boosting human resource capacities for the area's blue and green economy" supports project which contribute to more efficient transport services. The cooperation programmes aims at contributing to the objective 'Connect the region' of the macro-regional strategy of the Baltic Sea Region. The programme also indicates parallel aims of other cooperation programmes in the field of transport like the Öresund-Kattegat-Skagerak and the Central Baltic programme. Furthermore, it refers to the goals of EU policy documents like the Europe 2020 strategy and the White Paper on Transport from 2011 (Interreg South Baltic 2014, 8f. 11f. 15 18f. 22, 57ff. 63, 65f. 112).

### 37 Poland-Germany/Saxony

The cross-border region is divided by the river Neisse in the two domestic parts. The number of border and river crossings needs to be improved. The quality of existing crossings needs to be increased. The road infrastructure in Poland is being upgraded; some roads belong to the comprehensive network of the TEN-T. With one exception of a subregion, the road network is evaluated to be in a good development stage. However, regional and local cross-border sections of the road and rail infrastructure are rather in a poor technical condition which hampers cross-border mobility. The transport through and within the region is growing. The cross-border region is surrounded by multimodal important European transport routes which contribute to the region's external accessibility. Still internally, several remote and touristic parts of the cross-border region lack a good accessibility. In the last funding period, attempts were started to establish a common cross-border public transport system with a joint ticket system. This attempt needs to be developed further in the current funding period based on the current needs. Also cooperation activities exist on lower cross-border level of the cross-border region (e.g. of the Euroregion Neisse or of the 'Zweckverband Verkehrsverbund Oberlausitz-Niederschlesien'). So far the public transport has not be organized and coordinated by a single system because of missing exchanges of data and information. The public transport is not sufficiently intermodal and connected to other transport modes. The increase of public transport shall contribute to lower  $CO_2$  emissions and lower environmental harm. Airports in the cross-border region are missing. Cross-border bicycle transport shall be promoted in addition to public transport opportunities. Under the second priority axis "Regionale Mobilität" (Regional mobility) investments in local and regional cross-border road infrastructure are to be taken. Bottlenecks in the direct vicinity of the border are to be removed which shall increase the mobility across borders. Travel times are to be reduced. Tertiary nodes are to be connected better to the TEN-Ts. Also the first priority axis "Gemeinsames Natur- und Kulturerbe" [Common natural and cultural heritage] supports projects in the field of public passenger transport which connect cultural and natural important sights across borders. Intermodal solutions are to be favoured. Among others the development of common ticketing systems is supported (Interreg PL-SN 2015, 16ff. 19, 22f. 26f. 34).

### 38 Poland-Slovakia

The cooperation programme supports the transport development in the border region with the second priority axis "Sustainable cross-border transport". The cross-border transport is to be enhanced to increase the region's internal and external accessibility. Additionally, the regions' transport network is to be connected better to the TEN-Ts. The transport network of the border region shall become more integrated to reduce the travel times and contribute to economic growth. Roads are to be upgraded or newly constructed. (European Commission 2017f)

### 39 Romania-Hungary

The cross-border region is mainly rural. Three road border crossings out of ten are frequently used in the cross-border region. Mostly individual cares and 40% freight transport use these crossings whereas almost no public transport crosses the border. The transport infrastructure in the region has been improved in the last years by EU investments. New cross-border motorways are to be constructed. However, the current status and accessibility of the border crossings is not good and connected with safety risks. Five rail tracks cross the borders of the region of which four are not electrified. The train connections are very slow and not competitive with road transport. Therefore the rail infrastructure needs to be upgraded. The region contains five airports of which some offer international flights, however, they are neither connected sufficiently to other transport modes nor across the border. The rivers of the cross-border region are not used as means of transport. The access to the TEN-Ts is said to be difficult from many parts of the cross-border region. Also efficient internal transport connections between larger centres of the cross-border regions are lacking. Transport has a negative impact on the environment of the region. Touristic sights are insufficiently accessible by public transport. Furthermore, as there exists no efficient public transport services across the border this is expected to hamper economic integration across borders, particularly labour mobility. Also more CO<sub>2</sub> emissions are produced because the majority of the transport flows relies on the road. No cross-border bicycle paths exist. Already in the last funding period intensive investments were done into the cross-border road infrastructure. No funds were left for the support of public transport networks. Until 2030 a well functioning multimodal transport network across the national borders of the cross-border region for passenger and freight transport shall be in place. The internal accessibility shall be improved and more cross-border sections are to be established. To reach these aims the cross-border programme dedicates its second priority axis "Improve sustainable cross-border mobility and remove bottlenecks" to the transport development. This priority axis shall also contribute to the achievement of the Europe 2020 goal of sustainable growth.  $CO_2$  emissions are to be reduced by fostering more environmentally friendly modes of cross-border transport (among others the bicycle). Public transport is to be established and coordinated across borders to harmonize timetables etc. Also the vicinity of the TEN-Ts is to be benefitted from by fostering the cross-border connection between secondary and tertiary nodes and the TEN-T. Besides that investments in further cross-border sections should be taken. The multimodality of the transport system shall be further promoted. Here also preparation studies for the expansion of railway tracks can be fostered: Among others studies on the development of intelligent transport information systems across the border, including cross-border ticketing systems as well as coordinated cross-border transport services; innovative transport models with low CO<sub>2</sub> emissions; transport rolling stock and the construction of infrastructure can be supported. The cooperation programme refers to the macro-regional Danube Region Strategy and aims at improving parts of the region's transport infrastructure. Investments in the transport infrastructure have also been aimed at in the Romanian partnership agreement and both national Operational Programmes (Interreg Romania-Hungary 2015, 17f. 20f. 25, 27f. 32, 34f. 37f., 59, 63f. 112, 134ff,).

### 40 Slovakia-Austria

The cross-border region consists of strongly differing parts. The two urban capital cities and their surroundings differ from the situation of smaller cities and rural, peripheral areas. Also large environmental protected areas exist. The urban hubs have a good transport infrastructure. Most parts of the cross-border region are highly accessible because of road, rail and waterway axes crossing the region. Still, some remote parts are less accessible and inefficient border crossings exist across the Morava river. There are large transport flows across the border, especially between the urban hubs and these are expected to grow further. The further expansion of transport infrastructure contradicts the aim of the protection of the environment. The different spatial demands need to be coordinated. So far 80% is based on private car transport. The roads are often congested. Also in more rural areas the usage of car transport is very high because of missing public transport offers. Transport needs to be shifted to more sustainable transport modes (bicycle, foot, e-mobility, car-sharing etc.) and the offer of and information about public transport – also in rural regions with special forms - needs to be enlarged. Also the cross-border cycling network needs to be improved with an information platform and made safer. Furthermore, the Danube is considered as a potential transport way whose potential has been underused so far. Multimodal hubs along the Danube need to be established or upgraded. Furthermore, freight transport on the Danube shall become more environmentally friendly. Also for tourist transport, more environmental friendly solutions need to be developed. According to the Europe 2020 Strategy transport shall become more environmentally friendly with less CO<sub>2</sub> emissions whereas it shall become more competitive. The cooperation programme supports the cross-border region's transport development with the third priority axis "Supporting sustainable transport solutions". Among others, passenger and freight transport shall become more environmentally friendly, safer and multimodal and emit less  $CO_2$ . The programme shall support and facilitate transport planning and coordination of infrastructure and services across the border in cities and rural parts. Public transport services shall be linked, coordinated and managed better between the two countries. Because of limited financial means and local opponents the programme will not support investments in the border crossings of the Morava river. Instead it focuses on better planning approaches, studies, implementation tools, intelligent information systems, pilot infrastructure investments, trainings and the exchange of experiences across borders. All small scale infrastructure investments need to be part of a comprehensive strategy. Also in the last funding period several transport projects have been supported. The first priority axis can support the development of innovation in the field of transport. Also the second axis aims at improving the accessibility of peripheral tourist attractions by environmental friendly public transport. Even the third priority axis fosters institutional cooperation in the coordination of cross-border transport projects. The transport focus of the programme has been influenced among others by the Europe 2020 Strategy, the macro-regional strategy of the Danube Region and the CENTROPE strategy which concerns the development of a larger cross-border region including also Czech and Hungarian regions (Interreg Slovakia-Austria 2015a, 3, 11f., 15, 22, 25f. 32f. 35, 42, 51, 59ff. 65, 68f.).

### 41 Slovakia-Czech Republic

The cooperation programme does not dedicate one of its three priority axis on the transport development. However, among the expected results is the modernization of cycle and foot paths (European Commission n.y.b).

### 42 Slovakia-Hungary

The number of border crossings is quite high for cross-border regions on the Danube. In the last funding period, several new border crossings have been established. Still the number needs to be further increased to get closer to a Western European value. The Western part of the cross-border region shows higher transport flows across the border and offers public transport bus and rail services in contrast to

the Eastern borderlines. Most cross-border transport flows are based on individual cars. Only 2% travel by public transport across the border although within Hungary 34% use public transport modes. Therefore cross-border public transport needs to be further expanded and transport shifted from the road to alternative transport modes to minimize  $CO_2$  emissions and be more environmentally friendly. No public transport takes place on the Danube river. The transport system's services have not been multimodal so far. The regional centres of the cross-border region which are not directly located at the border are poorly interconnected. The cooperation area is crossed by three TEN-T corridors (Baltic Adriatic, Orient East Med and Rhine-Danube). However, the corridors do not contribute to transport between the two countries. They rather cross one national part of the corridor. The cooperation programme sees a lack of a North-South transport core network in the Eastern part of the cross-border region. Also the economy is said to be hampered to establish logistical connection because of missing transport links. So far three important intermodal centres exist in the cross-border region which are connected to the TEN-T. The freight transport shall become more environmental friendly by using alternative transport modes and unused potentials e.g. of the Danube. The countries should start to cooperate in the field of logistics and establish cross-border logistical zones. With its second priority axis "Enhancing cross-border mobility" the cooperation programme supports the region's transport development and accessibility. The cooperation programme wants to establish further cross-border transport connections to enhance the accessibility to the TEN-Ts, improve cross-border public transport services and make the transport more environmental friendly and multimodal. Also the mobility of labour shall be supported by better transport conditions. Cross-border public transport ticketing systems and intelligent transport systems can be applied, the latter also in the case of freight transport. The domestic programmes complement the cooperation programme's actions as they have a slightly different focus. The programme shall also contribute to the macro-regional strategy of the Danube Region in the field of transport (Interreg Slovakia-Hungary 2016, 10f., 14, 15, 20f., 23f. 41, 85, 87).

### 43 Slovenia-Austria

The cooperation programme of the Slovenian-Austrian cross-border region does not support any transport infrastructure investments. The only relation to transport is the support ob labour mobility and the mobility of researchers, however, this does not contain any transport investments (Interreg Slovakia-Austria 2015b, 21, 38, 74).

### 44 Slovenia-Croatia

The cross-border region is sparsely populated except of the two capital regions. The external accessibility of the cross-border region is evaluated to be relatively good because it is crossed by important transport corridors (Baltic-Adriatic and Mediterranean TEN-T corridor) which bring strong transport flows through the region. The internal border contains 57 border sections. The region contains six international airports and two important Adriatic sea ports. The internal transport depends mainly on road infrastructure. The internal accessibility differs depending on the location. Regional roads are mostly in a bad condition and imply safety risks. Local and regional rail connections do rarely exist and are not connected the neighbouring country. In general the transport modes are not sufficiently interconnected. Also sea transport is relevant to access the Croatian islands, however, the ferries to the mainland are not efficient and often congested. Thus the islands accessibility is not in a good condition. Seven cross-border rail lines exist, however, the connections are evaluated to be poor. The demand of rail transport is very low. Furthermore, the public transport within the cross-border region does solely sparsely exist - mainly in urban centres - and is not efficient. However, there have been attempts to apply innovative solutions like e-mobility. Several areas do not have access to public transport. Also peripheral tourist attractions need a better transport infrastructure access. Cross-border bus transport does solely exist between the biggest cities. Transport has negative effects on the air pollution of the cross-border region, especially in urban centres. Renewable energies are rarely used in transport. The third priority axis "Healthy, safe and accessible border areas" of the programme shall improve among others the transport development of the cross-border region. Remote and peripheral areas shall be connected better with public transport services to make the transport more sustainable and create economic benefits. Institutional cooperation and the establishment of organizational structures shall allow developing a higher mobility. Also experiences are to be exchanged (Interreg Slovenia-Croatia 2015, 8ff.,19,26,52).

### 45 Slovenia-Hungary

The cross-border region is very rural. The road network is said to be in a moderate condition as it was improved in the last years. The cross-border region is crossed by the TEN-T Baltic Adriatic and the Mediterranean corridor. A highway between Budapest and Ljubljana crosses the cross-border region and is the most important road connection for the region. The road infrastructure needs to improve the connection in rural and remote areas. The transport network of the two domestic parts is connected via 9 border crossings. However, not all roads are in a good condition so that longer travel times are needed. No good region wide cross-border public services exist with the exception of a bus connection of the two capital cities. Other bus services are not coordinated and do not contribute to a higher cross-border mobility. Both countries have good inland railway services between the larger cities, however, only one cross-border connection exists with few connections a day. The connection to rail of smaller towns needs to be improved. European bicycle routes cross the region, they are, however, not completed and lack sections especially across the border. The transport has to be shifted to more sustainable and environmentally friendly transport modes which make the transport safer and offer a higher frequency of cross-border services. Furthermore, the accessibility of touristic sites and active tourism infrastructure needs to be enhanced by public transport among others. In the last funding period only a small amount of transport projects applied for funding because of the limited availability of funds. Priority axis 2 "Cooperative Region" can support cooperations to exchange experiences in the field of cross-border public transport and accessibility. In general, transport projects shall contribute to the generation of air and environmental pollution. More investments are not taken into account (Interreg Slovenia-Hungary 2015, 10ff., 16f., 35, 78).

### 46 Spain-France-Andorra (POCTEFA)

The cross-border region has very diverse characteristics. Urban and coastal areas are highly populated whereas there are very rural and sparsely populated areas in the hinterland. The transport accessibility is challenging, especially in the central part of the border region, in terms of the connection of secondary networks and across-borders. The cross-border region is divided by the Pyrenees Mountains. Therefore it is not easy to cross the border. The two main cross-border sections close to the two sea coasts are often congested because almost all freight and passenger transport is moved on these two passages. These freight transport routes belong to the TEN-T Mediterranean and Atlantic corridors. Existing secondary cross-border sections are not geared to admit these large transport flows. Because of this transport concentration the residual central part of the cross-border region suffers a low importance and accessibility. Furthermore, the offer of public transport (across borders) is limited. Therefore especially old and immobile people have problems to access basic services. Additional cross-border sections need to be constructed to relieve the existing roads. Multimodal sustainable transport solutions are needed. The rail network might be expanded. The overall mobility of passengers and goods in the cross-border region needs to be enhanced. The priority axis "Favoriser la mobilité des biens et des personnes" (Improve the freight and passenger mobility) supports the development of more border crossings through the Pyrenees Mountains to relieve the existing crowded cross-border sections and improve the cross-border mobility of passengers and freight. In this context common cross-border strategies are to be developed to develop a better and sustainable cross-border transport. The investments shall support

environmental friendly cross-border transport solutions (bicycle, foot, e-mobility, car-sharing etc.) which contribute to a higher cross-border mobility. Additionally, the transport between urban and rural areas shall be improved. Public transport services are to be established across the border. Intermodal hubs with coordinated schedules, and ticketing systems shall help to better connect the different transport modes. Studies, plans, innovative pilot projects and concrete initiatives on the cross-border transport development can be funded. Also existing infrastructures can be upgraded. However, the construction of roads, railway tracks and airports is not eligible (Interreg POCTEFA 2015, 9f. 14 18f. 22, 66ff.).

### 47 Spain-Portugal (POCTEP)

The cross-border region is a rather rural region with small urban centres, low population densities and a poor accessibility by road and rail. However, the situation of the Northern coastal areas differs from the situation on the land side. The cooperation area has been slightly enlarged compared to the last funding period. Although transport was not chosen as a priority axis, two of these axes foresee possibilities for transport development. Cross-border planning initiatives to improve sustainable public transport can be supported by the third priority axis "*Crecimiento sostenible a través de una cooperación transfronteriza por la prevención de riesgos y la mejora de la géstion de los recursos naturales*" [Sustainable growth through cross-border risk prevention and management of natural resources]. Intelligent transport becomes more environmentally friendly because it strongly contributes to the high CO<sub>2</sub> emissions and minimizes the air quality. Renewable energies should be used more frequently. Also the fourth priority axis "*Mejora la capacidad institucional y la eficiencia de la administration pública a través de la coopéracion transfronteriza*" [Improve the institutional capacity and the efficiency of public administration through cross-border cooperation] can support cross-border transport projects if these contribute to the removal of border obstacles (Interreg España - Portugal 2016, 4f.,63,66,70,72,75).

### 48 Sweden-Denmark-Norway (Öresund-Kattegat-Skagerrak)

The cross-border region is crossed by the Scandinavian Mediterranean TEN-T transport corridor which contains bottlenecks. The connection between Copenhagen, Stockholm and Oslo is to be expanded to a multimodal transport corridor. Cross-border transport planning is to be fostered. They region's ports are very important for cross-border transport and are included in several strategies and the TEN-T corridor. Also green freight transport corridors are planned to be developed. The cross-border accessibility is said to be overall good but varies. The North-South corridor is in a good condition but often congested in its bottlenecks. Also the East-West transport network needs to be improved. Urban hubs generally have a better accessibility than their hinterland. The Öresund region is characterized by strong transit traffic whereas inner parts of the cross-border region with a low population density are less accessible and have a lower public transport offer. Another challenge are the high  $CO_2$  emissions of transport which are still further growing. Transport needs to become more environmentally friendly. The increase of the usage of renewable and alternative energies is a possible contribution to this aim. The cross-border region dedicated the third priority axis to transport development "Att främja hållbara transporter och få bort flaskhalsar i viktig nätinfrastruktur" [Foster sustainable transport and remove bottlenecks in important transport networks]. Effective and sustainable cross-border solutions shall be developed for freight and passenger transport. A higher accessibility is expected to contribute to economic growth, higher labour mobility and attractiveness. The different transport modes rail, road and sea shall be connected and coordinated. Additionally, transport shall become barrier-free. Innovative ideas for an adapted transport offer for special needs in rural and peripheral regions have to be developed. The development of the TEN-T shall be supported by investments into this transport infrastructure because several parts of crossborder region's infrastructure belong to the TEN-T network. Therefore the capacity of the roads and railways between Oslo-Gothenburg and Copenhagen shall be improved to accelerate the connection. Furthermore, the regional mobility shall be improved by linking secondary and tertiary networks to the TEN-T and multimodal hubs. Also the connection between rural and more central areas shall be enhanced. To make the transport more sustainable, CO<sub>2</sub> and noise emissions are to be reduced. Particularly waterways are to be used. They are to be connected to airports to develop a multimodal network. Intelligent transport systems can be developed and applied as well as alternative fuels and vehicles, bicycles, footways and cross-border public transport services to make the transport more environmentally friendly. Additionally, research, applications and the exchange of experiences in all these fields shall be supported. The cooperation programme refers to several other transport strategies included the Baltic Sea Strategy, and national aims as well as cross-border strategies of its subregions. The measures shall contribute to the Europe 2020 Strategy as well (Interreg Öresund-Kattegat-Skagerrak n.y., 11f. 16f. 71 73f.).

### 49 Sweden-Finland-Norway (Nord)

The cross-border region has a very large territory but a low population density and is very special because its geographical position, climate and long distances. Because of the distances a good transport network is needed to ensure a certain accessibility. The cross-border region has access to several transport modes like airports, rail, roads and ports. So far roads have been the most important transport mode because it is very flexible and effective. However, the share of freight transport shall be moved from road to rail. The region is part of a Northern American -Scandinavian -Russian - Asian freight transport corridor consisting of a rail and sea network which shall be further enhanced by shortening the track to improve the cross-border region's international trade. Also other rail roads exist for freight and passengers. Some have to be upgraded because of enlarged freight volumes and safety reasons. So far no rail passenger cross-border link exists between the Swedish and Finish border (Haparanda/Torneå). A cross-border coordinated rail service should improve the rail network of the region. The cross-border region owns a high number of airports compared to other cross-border regions because of its peripheral location and low population density. However, there are no regular East-Western flights within the cross-border region and national flights of the three countries are not coordinated. Most of the high number of ports is ice free during winter and can operate the whole year. Except of some ports in Norway, all the others are also connected to the railway network and are thus multimodal. At the Norwegian coast also regular passenger traffic is offered on the sea. The overall transport infrastructure is evaluated to be insufficient which hampers successful cross-border cooperation and labour mobility. A good accessibility including public transport services is very important for the enterprises of the crossborder region. Therefore the infrastructure and innovative transport services that fit to the challenging situation need to be developed and improved. Especially East-West transport infrastructure needs to be developed to increase the inner regional accessibility which has been lacking so far. Despite all these challenges, no transport projects can be funded by the cooperation programme. To decrease the environmental harm of transport it is recommended to use video conferences and other digital media to avoid traffic (Interreg Nord 2014, 15 25f. 233).

### 50 Sweden-Finland-Norway (Botnia-Atlantica)

The Botnia-Atlantica cross-border region wants to improve the cross-border planning of their transport development. East-West transport routes need to be established to connect the cross-border region across borders and to make it more accessible to international trade, e.g. with Russia. This is also important for economic, research, touristic and health linkages across the border. There exists a transport track from the Norwegian Atlantic coast through Sweden to Finland which needs to be upgraded logistically and in its multimodality. This has been done in the last funding period but further investments are necessary. Additionally, cooperation between different actors of the transport market shall be established across

borders. The regular sea link between Northern Sweden and Norway (Kvarken) which is used for passenger and freight traffic is very vulnerable during winter because of the region's climate and a low demand. However, this link is more sustainable than the usage of the road and therefore should be promoted. To contribute to a higher transport sustainability the usage of fossil fuels shall be minimized and the logistics as well as vehicles need to become more efficient. Only few transport links across borders exist in the region: between Vasaa (FI) and Umeå (SE) (ferry link) and three links across the mountains between Sweden and Norway which are vulnerable in winter. The road track between Vaasa (FI), Umea (SE) and Mo i Rana (NO) belongs to the Scandinavian Mediterranean TEN-T corridor and connects the three parts of the cross-border region. The Swedish internal road transport has weaknesses. Although there is a high number of airports there are no direct flight connections within the cross-border region. It was tried to offer internal flights but was stopped again. The last funding period already focused on the transport development. In the current funding period the programme supports planning and strategies to facilitate and coordinate the passenger and freight transport network of the cross-border region within the TEN-T under the fourth priority axis "Transport". Furthermore, sustainable and environmentally friendly transport solutions in East-West direction shall be established. The existing transport track which connects the three different national parts of the cross-border region shall be further upgraded into a sustainable and attractive transport system. Therefore common aims and strategies are to be established as investment preparation. Investments into the infrastructure need to be taken by the Member States or private actors. The cooperation programme also refers to the national transport plans of the subregions which plan concrete infrastructure investments for their territories (Interreg Botnia-Atlantica n.y., 16ff.).

### 51 Sweden-Norway

The cross-border transport infrastructure in the region is not very advanced. However, transport flows across the border are growing – mostly relying on the private car for passenger transport. Therefore the transport development in the cross-border region is an important challenge. Especially cross-border public transport needs to be improved to minimize environmental harm and increase the region's internal accessibility. So far most passenger and freight transport in the region relies on fossil fuels. The cooperation programme dedicates the fourth priority "Hållbara transporter" [Sustainable transport] to the transport development of the cross-border region. Environmentally friendly transport modes which emit low noise and CO<sub>2</sub> shall be developed. Also the different transport modes shall be coordinated and mutually connected. Passenger transport shall be shifted to cross-border public transport. Public transport shall be made more attractive e.g. by coordinating schedules and developing common ticketing and information systems etc. Freight transport shall be shifted to alternative and more environmentally friendly transport modes to the road. Furthermore, the availability of alternative fuels shall be expanded in the cross-border region to allow the usage of alternative vehicles. These measures shall also contribute to a higher and more attractive labour mobility and therewith economic growth. Additionally, proposals for a better connection of the region's infrastructure to the TEN-T can be made. Because of missing financial means the programme cannot support concrete infrastructure investments. However, it supports cross-border transport and infrastructure analyses, can develop funding proposals for the Member States and can enhance the cooperation in the coordination of public transport services. The cooperation programme also refers to the transport aims of the Baltic Sea Strategy which shall be supported by the own initiatives (Interreg Sverige-Norge 2014, 13ff. 52ff.).

### 52 United Kingdom – Ireland (Ireland, Northern Ireland, Scotland)

The cross-border region is party separated by the sea which challenges a well-connected transport system. Transport leads to high  $CO_2$  emissions in the cross-border region – the region's transport network relies strongly on the individual car and the roads are often congested. Public transport is rarely

used. Therefore the transport system needs to become more efficient, environmentally friendly and sustainable. Public transport shall be expanded and the usage of bicycles promoted. So far, the bicycle network has not been completed. Also car-sharing and walking are seen as possible alternatives. There exists no cross-border coordinated network charging stations for alternative fuels and electro mobility which does not contribute to an increase cross-border flows with alternative vehicles and fuels. Additionally, rural areas need to be accessed properly. The modal share of job commuters shall be shifted from individual car to more sustainable transport modes. All subregions want to contribute to a more sustainable transport modes. All subregions want to contribute to a more sustainable transport. The cooperation programme chose investments into the transport development as the third priority axis "Sustainable transport". To contribute to the Europe 2020 Strategy aim of sustainable growth  $CO_2$  emissions are to be reduced by promoting alternative fuels and nonmotorized modes of transport to the individual car such as e-mobility and low carbon vehicles and bicycle roads with reduced speed limits for cars (greenways). A cross-border bicycle infrastructure network is to be established. Potential cross-border sections are:

- Londonderry (UK)-Lifford (IR)-Strabane (UK): greenway establishment
- Derry(UK) Letterkenney (IR)
- Dundalk (IR) Newry(UK)
- Manorhamilton (IR) Enniskillen (UK)
- Belcoo (UK) Blacklion (IR)
- Cairnryan (UK) Belfast (IR)

Furthermore, an increase of multimodal transport shall also contribute to this aim. Multimodal hubs are to be established in cities to better coordinate and connect the different transport modes. These are especially to be established close to the borders to coordinate and connect the different transport systems. A special project for improvement has already been predefined: a multimodal hub shall be established in Londonderry which is closed to the Irish border (between Letterkenny (IR) and Derry (UK)) with coordinated ticketing and timetables. The public transport offer is to be planned across the border. Also a cross-border network of charging stations for e-mobility and alternative fuels shall be established or the offer shall be better coordinated across the border. Additionally, research in more sustainable charging infrastructure can be funded. The programme shall also support the exchange of experiences and create learning processes. The transnational programmes which concern the cross-border region also support the sustainable transport development (Interreg United Kingdom-Ireland 2016, 2, 7, 14f., 22ff., 68ff.).

## 53 United Kingdom-Ireland (Ireland-Wales)

The cross-border region is separated by the sea. The cooperation programme of the cross-border region does not foster any transport projects.

### **X.2.2.2** Transnational cooperation (INTERREG B)

<u>eneath</u>	
INTERREG B	Countries involved 2007-2013
Alpine Space	AT, CH, DE, FR, IT, LI, SI
Atlantic Area	ES, F, IR, PT, UK
Mediterranean Area	HR, CYP, FR, GR, IT, MT, PT, SI, ES, UK (+ AL, BA, ME)
North Sea Region	UK, NE, BE, DK, DE, SE (+ NOR)
Northern Periphery (and Arctic)	FIN, IRE, UK, SE (+ FO, GL, IS, NOR)
South East Europe	IT, AT, SI, HR, HU, SK, RO, BG, GR (+RS, ME, UA, MD, MK, BA, AL)
South West Europe	PT, ES, FR, UK (Gibraltar) (+AD)

<b>INTERREG B Operational Programmes (200</b>	)7-2013)	
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Table 84: List of the INTERREG B Transnational Cooperation Programmes 2007-2013 presented

Source: Author, Kaiserslautern, 2017.

### Alpine Space

The Alpine Space considers accessibility and connectivity as a very important topic. The location of the Alpine Space is very central between the Northern and Southern part of Europe- much traffic transits through the region. The transport through Alpine Space is challenged by its natural characteristicsmountains and valleys and the disparities are very high between remote areas and urban hubs. Remote areas often suffer from demographic change and a decreasing number of inhabitants and a loss of demand which minimizes the offer of public transport and infrastructure in general. Furthermore, the traffic density is in many cases closely connected to tourism season. Therefore efficient infrastructure is needed in high season which is underused in low season. Environmental pollution and climate change shall be minimized by using alternative transport modes and fuels with new technologies, innovative logistical chains and public transport concepts. On existing infrastructures congestions shall be stopped, safety improved and polycentric transport connections within the Alpine Space further improved. This entails the removal of barriers between the Member States involved for instance in the field of domestic contrasting (railway) systems. Furthermore, the accessibility of remote areas and the connection between urban hubs shall be improved. Cooperation across border at different levels is to be improved to contribute to an interoperable transport system also in the user-friendliness of the transport services. Furthermore, the cross-border planning of transport development is fostered (Alpine Space 2007, 25ff., 52 and 58ff.)

### Atlantic Area

The Atlantic Area chose the transport development as one of its priorities under the title "Improve accessibility and internal links". The priority shall contribute to a balanced polycentric development of the area. The accessibility of the Atlantic Area differs. In the EU core, there is a good accessibility, but not in the regions more north and south and on the islands involved. Furthermore, the secondary transport network is often not in a good condition because of a clear focus of investments on the main transnational routes. Because most freight is transported via roads and not rail the roads are congested. There is no efficient railway track through the Pyrenees. In some cases terminal infrastructure is missing. Regional airports are often not linked effectively to other transport modes and do not offer many flights within the Atlantic Area. The Atlantic ports and maritime transport (motorways of the sea) need to be supported as they are a very energy efficient mode of transport. The funding concentrates on two fields: First, existing transport networks shall be improved in their intermodality especially on freight. Passenger services across borders and between transport modes need to be enhanced as well. They should improve in particular the interregional accessibility across borders. The islands should be better connected to main land and other islands. Domestic technical differences need to be overcome. Second,

short sea shipping and the cooperation between ports shall be supported. The implementation of the motorways of the sea can be fostered (Atlantic Area n.y., 19ff. 35, 45, 59ff.).

### Mediterranean Area (MED)

The Mediterranean Area comprises several islands which is a special feature and increases the importance of sea and air transport. The accessibility of isolated islands shall be improved to contribute to territorial cohesion. Therefore all transport modes shall be interconnected and ensure a multi-modal efficient network for freight and passengers. Furthermore, the environmental burden should be minimized by using alternative fuels and widening public transport and safety improved. Due to geographical characteristics the East-West transport networks within this area are not very efficient and the eastern regions of the programme area do not have a good road network. The high speed rail network needs to be extended and upgraded. The existing infrastructure shall be complemented with new multimodal tracks and terminals. The sea transport is a good alternative to road transport and shall be supported further by the motorways of the sea and enlarged short sea shipping. The ports should also be connected to their hinterland and be strengthened as 'gateways' to Europe. The connection to Asia and Africa shall be improved. The importance of regional airports shall be increased. They should be better linked to the main airports and other transport modes. As the Mediterranean Area is a tourist region it is experienced in large transport flows. The Mediterranean programme contributes to the transport development with the priority "Improvement of mobility and territorial accessibility". Transnational transport networks should be better connected with the territory they cross and the transit capacities shall be enlarged. New technologies shall be introduced to improve transport services and a better coordination of actors. In general the policies of different administrative levels should be better coordinated (Programme Med 2011, 19f. 23f. 31f. 67f.).

### North Sea Region

"Improving the accessibility of places in the North Sea Region" is the title of the transport priority of this cooperation programme. The North Sea Region is an important transit region for freight transport. The region has a very diverse accessibility and density. The European core contrasts remote island areas in its North. The accessibility shall be improved by innovative and alternative transport modes, technologies and services. Regional transport hubs are very important for the region, especially in remote areas. Short sea shipping and motorways of the sea are seen as a vital and alternative transport mode for the region and can be used for increasing transport of goods. Bottlenecks can be circumvented. Inland waterways are also considered as sustainable transport mode and should connect the sea ports with the main land. The number of rail freight corridors should be increased. Although road transport should be minimized it is seen as important mode to access peripheral areas with a low population density. The external and internal accessibility of the region shall be improved both for passenger and freight transport. Besides the infrastructure also logistical chains shall be improved to make the transport more efficient, less congested and sustainable. The environmental impact shall be minimized. Land and sea transport corridors should be connected and intelligent intermodal transport systems developed. Secondary networks shall be developed that connect peripheral parts of the region to the main transnational and international transport corridors and make use of the benefits through the crossing of a main corridor in the region (Interreg IVB North Sea Region Programme 2008, 14ff. 34 69ff.)

### Northern Periphery

Accessibility is not a main priority. It belongs to the priority "Promoting innovation and competitiveness in remote and peripheral areas" and is a sub-priority. A good transport connection is seen as very important for the economic growth of the remote Northern Periphery. The special climate conditions and special natural characteristics as mountains, islands, and sparsely populated areas challenge transport infrastructure and transport modes. Road transport and other transportation modes shall be advanced. Short sea shipping is seen as potential for intermodal transport in sparsely populated and remote areas. Aims are the development of innovations to maintain the existing road, rail, air and port transport infrastructure under the special climate conditions. Maritime transport shall be advanced to connect especially rural regions and increase its safety. Logistical transport chains for freight shall be developed. The offer of innovative efficient public transport shall be maximised and make the population to be independent of their own vehicles (Northern Periphery Programme 2007, 42)

### South East Europe

Priority 3 of South East Europe is entitled "Improvement of the accessibility" and shall support the transport development of the region. The transport network of South East Europe is seen as a bridge between the different parts of Europe. The transport network, however, is rather regimented and especially in Romania and Bulgaria it is very poor as well as in the neighbouring candidate countries. The transport infrastructure development is still often based on national interests and isolates the domestic systems from each other. Furthermore, geographical characteristics separate some countries of the region. The quality of the infrastructure needs to be improved to reach a European standard and it should become more environmental friendly and energy efficient. The area is crossed by two TEN-T corridors. Also several Pan-European Corridors that link neighbouring countries are important. Sea transport and the motorways of the sea are relevant for South East Europe. These main corridors should be linked to the regions secondary and intra-regional networks to make use of the economic potential. The Danube is an important inland waterway and should be used more strongly instead of roads. Logistical chains shall be improved to contribute to a sustainable transport system with environmental friendly modes and less congestion. Short sea shipping is seen as a good freight alternative to road transport. Intermodals hubs need to be established and used to connect the different transport modes better. Especially the ports need to be connected to the network. The rail network needs to become more efficient. Especially cross-border sections need to be upgraded. For the countries with access to the sea and with islands it is a challenge to ensure their accessibility. Urban transport is to be made more sustainable and the offer of public transport services is to be maintained. Intelligent transport management systems are to be developed and implemented. Additionally, remote or geographically disadvantaged regions shall be supported by innovative solutions for their accessibility (South East Europe (SEE) 2013, 30ff., 104ff.).

### South West Europe

The Operational Programme of South West Europe is not available in English but in Spanish. The priority related to transport is "Integración armoniosa del espacio del SUDOE y mejora de la accesibilidad a las redes de información". The internal and external accessibility of the cooperation area is to be improved. The different transport modes should be made more interoperable and peripheral and urban areas should be interlinked to the transport network. Existing infrastructure networks should be interconnected, made more efficient and become intermodal. The transport across the Pyrenees shall be improved by innovative ideas. South West Europe shall also improve its connection to North Africa. High speed connections shall be implemented. The road network and the air transport shall be improved in its quality and safety. Alternative transport modes are to be supported to be more climate neutral. The railway infrastructure between France, Spain and Portugal shall be matched. Logistical platforms shall be established and their multi-modality shall be improved. Furthermore, intelligent transport systems shall be applied (INTERREG IVB SUDOE 2012, 91ff.).

Table 05. Transport anns of the Transnation		pere	, unom		0,51 u				010		
Programme areas IV B	Alpine Space	Atlantic Area	Baltic Sea	Central Europe	Mediterranean Area	North Sea Region	North West Europe	Northern Periphery	South East Europe	South West Europe	Sum
Transport Infrastructure network	1	1	1	1	1	1	1	1	1	1	10
Removing bottlenecks/barriers, improving capacity + efficiency	1	1	1	1	1	1	1	1	1	1	10
Linking TEN-T and secondary networks	?		1	1	1	1	1		1	1	7
Relieve routes/ Fighting congestion	1	1	1	1		1	1		1		7
Intermodality/ Interoperability	1	1	1	1	1	1	1	1	1	1	10
Intelligent transport systems				1	1	1	1		1	1	6
Freight corridors	1					1		1			3
New technologies/innovations (research)	1	1	1	1	1	1	1	1	1	1	10
Improving mobility of freight	1	1	1	1	1	1	1	1	1	1	10
Improving the mobility of citizens	1	1	1	1	1	1	1	1	1	1	10
Improving the accessibility for remote areas	1	1	1	1	1	1	1	1	1	1	10
Connecting neighbouring Member States			1	1	1				1	1	5
Improving cross-border sections	1	1	1	1			1		1	1	7
Improving user-friendliness	1	1		1				1			4
Transport Services	1	1	1	1	1	1	1	1	1		9
(Urban) public transport and bicycle/foot	1		1	1	1	1		1	1		7
Transport Safety	1			1	1	1	1	1		1	7
Cross-border services	1	1		1			1				4
Environmental and sustainable Issues	1	1	1	1	1	1	1		1	1	9
Alternative modes of transport (rail,)	1	1	1	1	1	1	1	1	1	1	10
Alternative fuels/Climate Change	1		1	1	1		1			1	6
Minimizing environmental harm	1			1	1	1	1		1	1	7
Sustainable Transport	1			1		1	1	1	1	1	7
Exchange of practices/ better coordination		1									1
Source: Author Kaiserslautern 2017											

Table 85: Transport aims of the Transnational Operational Programmes 2007-2013

Source: Author, Kaiserslautern, 2017.

INTERREG B Cooperation Programmes (2014-2020)

Countries involved 2014-2020
IT, SI, GR, HR (+ AL, BA, ME, RS)
AT, CH, DE, FR, IT, LI, SI
ES, F, IR, PT, UK
BG, CY, GR (+ AL, MK)
DE, CZ, AT, SI, HR, SK, HU, RO, BG (+ AL, MD, BA, ME, RS, UA)
HR, CYP, FR, GR, IT, MT, PT, SI, ES, UK (+ AL, BA, ME)
UK, NE, BE, DK, DE, SE (+ NOR)
FIN, IRE, UK, SE (+ FO, GL, IS, NOR)
PT, ES, FR, UK (Gibraltar) (+AD)

Source: Author, Kaiserslautern, 2017.

### Adriatic-Ionian Area (ADRION)

The status quo of the transport infrastructure in the Adriatic-Ionian Cooperation area is characterized by imbalances between the EU Member States and the others. In the non-EU countries, little investments in infrastructure have been taken. In general, despite a large number of ports the maritime transport is not sufficiently linked to the inland transport. The existing infrastructure is congested and bottlenecks exist. Several remote areas exist which are poorly accessible. Road is the most frequently used transport mode for passenger and freight, rail is decreasing. The area aims at improving a common comparable data collection on accessibility and transport development to react on missing links, upgrade services across borders and make the transport more intermodal, sustainable and safe. For freight transport the logistics within the area shall be improved, multi-modal platforms with efficient information technologies as well as parking areas shall be established. The transport shall become more efficient to reduce transport costs and environmental harm. Alternative transport modes to the road, especially rail shall be supported. Furthermore, for a better linkage of the national transport systems, especially border sections are to be upgraded. In the programmes priority axis 3 "Connected region", the most important transport infrastructures shall be expanded sustainably and bottlenecks reduced. Furthermore, alternative and environmental friendly transport modes to the road are to be fostered and mutually interconnected. CO<sub>2</sub> emissions are to be minimized by clean fuels, also in sea transport to prevent environmental harm. Also integrated transport services shall be enhanced. The cooperation shall lead to coordinated investments in the transport infrastructures and services (Interreg ADRION 2015, 14f., 22, 30, 64f.).

### Alpine Space

The Alpine Space is characterized by its high variety of the space, with rural and highly urbanized areas. The transport development is often hampered because of the area's topography. Therewith the accessibility strongly varies in the area. Rural areas are often solely accessible by car. Still, the transport network is considered to be reliable and extensive. The Alpine Spaces decided not to choose transport as a thematic objective because experience is said to have shown that only few highly qualitative projects came up in the past and that the financial means were too low. Still transport projects can be funded in the field of innovative technologies and processes. Especially, the CO<sub>2</sub> emissions shall be reduced by developing a more sustainable mobility. Also innovative solutions for public transport, as service of general interest, shall be created. The cooperation shall facilitate an exchange of ideas and best practices to share best practices (Alpine Space Programme 2014, 7ff. 12 20 22, 29 38).

### Atlantic Area

Many parts of the Atlantic Area face accessibility-challenges which hinder the full integration of the development in the cooperation area. Especially, the southern part of the cooperation area (Spanish and Portuguese regions) has a low accessibility to transnational transport networks compared to most northern parts (France and UK) because being located more centrally in the EU. The area contains several important ports, but the other transport modes are underrepresented and the network is little intermodal. Several remote areas exist which are little accessible. Especially maritime transport shall be expanded to react on this challenge. Also the Atlantic Area decided not to fund projects to improve the accessibility because the last funding period showed a low number of project interest in this field. Transport projects can be financed in the field of environmental friendly and innovative transport solutions for all transport modes (also sea) (Atlantic Area Programme 2015, 12,14,23,30,58,86).

### Balkan-Mediterranean

The accessibility and transnational connection of the regions of the Balkan-Mediterranean area is very low. Especially, outside urban hubs, the quality of public transport is very low. Especially regional or local roads in the periphery are in a bad condition. Many regions miss intermodal offers. High level

roads are often not connected across borders. This is also true for rail connections which are very rare in general. However, the regions have a good accessibility over the sea. Better cross-border connections are to be supported by transnational policies that allow a faster crossing of the frontiers which is expected to contribute to better trading conditions. The  $CO_2$  emissions of road transport are to be minimized; mobility shall become more sustainable and environmental friendly. Better public transport systems shall be developed. However, the cooperation programme does not dedicate a thematic objective to transport. Instead, the nature of the area shall be preserved from the threats of transport pollution (Interreg Balkan-Mediterranean 2015, 22f.,57,108).

### Danube Area

The Danube Area is described as an important transport corridor which is crossed by several TEN-T corridors (Scandinavian Mediterranean, Baltic Adriatic, Orient East Med, Rhine Danube and Mediterranean) in different implementation stages. Once implemented, the corridors are expected to further increase the mobility. However, large areas of the cooperation space outside the influence of these corridors faces transport and accessibility challenges. Thus these areas shall be connected better through secondary and tertiary networks to benefit from the corridors' high potential. This process shall be coordinated on the macro regional level. The transnational programme shall help develop an innovative transport strategy for the Danube area which later can be coordinated by the macro region. The speed and efficiency of freight transport shall be improved by the establishment of multimodal logistic chains. So far, the transport is not multimodal and the services and systems are not coordinated strongly. Safety and cross-border sections are to be improved. The high usage of the inland waterway Danube shall minimize the environmental impact of the transport expansion and contribute to a higher sustainability. Both, urban and rural areas shall be fostered in their public transport development. The programme's third priority axis 'Better connected and energy responsible Danube region' focuses on the transport development of the region. The expansion of transport is strongly connected with an environmental dimension: low emissions are to be produced. Furthermore, intelligent transport systems are to be applied. The coordination of transport investments and transnational implementation of common functional projects shall be supported (Interreg Danube Transnational Programme 2015, 19f.,25,27).

### Mediterranean Area

The transport network is considered to have a high quality with acceptable accessibility levels in agglomerations. However, there is a number of remote areas. The high number of ports are said to have a good infrastructure as well as the roads. However, the other transport modes and public services are not competitive with the road so that the transport is not multimodal and most mobility is conducted by individual car especially in cities. Urban transport therefore faces challenges and needs to become more sustainable. User friendly transport needs to be developed, by focussing the development more on the demand. Furthermore, the maritime transport on the coast is said to be insufficient. The exchange of transport actors to develop innovations is to be fostered. The harmful emissions of transport for the environment are to be minimized. In the last funding period (2007-2013) problems were faced in finding appropriate partners in the field of transport. Because of this, few projects were developed in this field. Because of other existing EU financial initiatives in the field of transport, the cooperation programme does not contain a general priority on transport to avoid parallel structures. Still it can be fostered in a specialised subfield of priority 2: the CO<sub>2</sub> emissions of transport systems shall be minimized and the multimodality increased. Rail and sea transport services shall be expanded. Furthermore, intelligent information systems are to be applied in passenger and freight transport. Additionally, the accessibility of peripheral and touristic places shall be enhanced (Interreg Mediterranean 2015, 14,24,26,28,32,61).

## North Sea Region

The deep ports of the region are very relevant for European freight transport and very relevant for the region's economy. Furthermore, the airports are also relevant, especially on regional level for remote areas. The train network is a less important transport mode in the region but is well developed. The sustainable potential of inland waterways as feeder to sea transport has not been made use of sufficiently in all subnational spaces. The region's transport infrastructure is evaluated to be in a good shape with multimodal elements. However, also remote, less accessible regions exist. Challenges are the strong reliance on road transport and heavy congestions, especially in urban hubs. The area's transport is highly dependent on fossil fuels and therewith strongly burdens the environment. Therefore the cooperation programme dedicates the fourth priority on 'Green Transport and Mobility' to minimize the CO<sub>2</sub> emissions and environmental harm. In this context alternative transport modes shall be strengthened in passenger and freight transport and combined to multimodal systems. These alternative transport connections should be expanded especially in the hinterland. Furthermore, new innovative technologies shall be applied to make the transport cleaner. Remote regions are to be connected to the core transport TEN-T networks. Bottlenecks in transport chains are to be removed. Besides long distance transport also measures to make local transport more sustainable should be taken like the promotion of alternative mobility types like car sharing and alternative fuels – among others - for public transport but also private cars (Interreg North Sea Region 2015, 3,11ff.,15f.,19f).

## Northern Periphery and Artic

This cooperation area is very special because of the region's low population density and very long distances to regional centres and a bad accessibility. Therefore, air transport is very relevant and often the only way to reach larger centres. However, it is very expensive. Other connections are said to be vulnerable. Because of a low level of 'key network infrastructure', i.e. TEN-T corridors or other important infrastructures, in the region it is hard to make use of them and invest in the connections, especially as the funds are limited. Therefore, the programme decided not to dedicate a special priority to transport development of these important routes. However, innovative public transport services for remote areas can be supported under priority axis one which aims at contributing to a good level of service provision in remote areas (Interreg Northern Periphery and Arctic 2016, 10,12,19,36).

## South West Europe

The cooperation area is said to have a good and accessible transport system, the road and rail infrastructure are evenly spread on the territory. However, the intermodality of the different national transport systems and cross-border sections between Spain and Portugal and Spain and France need to be improved, also because of the difficult terrain. Also the multimodality of the transport systems is below EU average in the region's inland. The coastal areas have a higher share and connectivity of different transport modes because of their ports. However, none of the programme's priorities aims at influencing the transport development of the area (Interreg Sudoe 2015, 14f.).

Table 87: Transport ain	ns of the Transnational	Cooperatio	on Progran	nmes 2014-2020

Table 67. Transport anns of the Transhationa		oper	auv		J SI a	mine							
Programme areas V B	Adriatic-Ionian (ADRION)	Alpine Space	Atlantic Area	Balkan-Mediterranean	Baltic Sea	(East) Central Europe	Danube	Mediterranean Area (MED)	North Sea Region	North West Europe	Northern Periphery (and Arctic)	South West Europe	Sum
Transport infrastructure network	1				1	1	1	1	1	1			7
Remove barriers, improve efficiency	1				1	1	1		1	1			6
Linking TEN-T and secondary networks					1	1	1		1				4
Relieve routes/ fighting congestion	1								1				2
Intermodality/ interoperability	1				1	1	1	1	1	1			7
Intelligent transport systems	1				1	1	1	1		1			6
Freight corridors													0
New technologies/innovations (research)	1	1	1		1	1	1		1	1	1		9
Improving mobility of freight	1	1			1	1	1	1	1	1			8
Improving mobility of passengers	1	1			1	1	1	1	1		1		8
Accessibility of remote areas	1	1			1	1	1	1	1		1		8
Connecting neighbouring/new member states	1				1	1	1						4
Cross-border infrastructures	1			1		1	1						4
User-friendliness								1					1
Transport services	1	1		1	1	1	1	1	1		1		9
(Urban) public and soft mobility		1			1	1	1	1	1				6
Transport safety	1				1	1	1						4
Cross-border services	1												1
Environmental and sustainability issues	1	1	1	1	1	1	1	1	1	1	1		11
Alternative modes of transport	1		1				1	1	1	1			6
Alternative fuels/ climate change	1	1	1	1	1	1	1	1	1	1	1		11
Minimising environmental harm	1	1	1	1	1	1	1	1	1	1	1		11
Sustainable transport	1	1	1	1	1	1	1	1	1	1			10
Exchange of practices/ coordination	1	1				1	1	1					5

Source: Author, Kaiserslautern, 2017.

## X.2.3 Overlapping cross-border regional and TEN-T corridor policies: mutual influence of the TEN-T corridors and the crossborder regions on cross-border transport

INTERREG 1) 2007-2013 2) 2014-2020	Austria-	Hungar y	Contuc	Baltic		Greater Region		RA	German	y/Brand enburg-	German v-	Netherl ands	Slovaki	a- Hungar	Sloveni	a- Austria		POCTE P	Sum
Funding period	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1 2
Transport infrastructure network	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1		9 7
Remove barriers, improve efficiency	1	1	1	1	1		1	1	1	1	1	1	1	1	1		1		96
Linking TEN-T and secondary networks		1			1				1	1				1			1		3 3
Relieve routes/ fighting congestion		1	1		1				1	1	1		1						5 2
Intermodality/ interoperability	1	1	1	1	1	1	1	1	1	1	1	1		1	1		1		8 7
Intelligent transport systems	1				1									1			1	1	3 2
Freight corridors																			0 0
New technologies/innovations (research)		1		1				1		1		1			1				1 5
Improving mobility of freight	1	1	1	1	1		1		1	1	1	1	1	1	1		1	1	96
Improving mobility of passengers	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	98
Accessibility of remote areas	1	1	1	1			1	1		1	1	1	1		1		1		7 5
Connecting neighbouring/new member states			1																1 0
Cross-border infrastructures	1	1			1	1	1	1	1	1	1		1	1	1		1	1	8 6
User-friendliness		1		1	1	1		1	1	1			1	1					3 6
Transport services	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	9 8
(Urban) public and soft mobility	1	1	1	1	1	1	1	1		1		1	1	1	1			1	6 8
Transport safety			1	1					1	1									2 2
Cross-border services	1	1			1	1	1	1	1	1	1	1	1	1	1		1	1	8 7
Environmental and sustainability issues	1	1	1	1	1	1		1	1	1	1	1		1	1			1	6 8
Alternative modes of transport	1	1	1	1	1	1		1		1	1	1		1					4 7
Alternative fuels/ climate change		1		1		1		1		1		1		1	1			1	1 8
Minimising environmental harm	1	1	1	1	1	1		1	1	1	1	1		1	1			1	6 8
Sustainable transport	1	1	1	1	1	1		1		1	1	1			1			1	5 7
Exchange of practices/ coordination		1		1	1	1		1	1	1		1		1	1			1	3 8
Total Number	15	20	15	17	18	14	10	17	15	21	14	16	11	17	16	0	11	12	
%	63	83	63	71	75	58	42	71	63	88	58	67	46	71	67	0	46	50	
Priority	у	у	n.d.	у	n.d.	n.d.	n.d.	У	у	у	n.d.	n.d.	У	У	n.d.	no	У	n.d.	4 5

Table 88: Relevance of the transport objectives of the case studies' CBRs in the two funding period

Source: Author, Kaiserslautern, 2017.

# X.3.1 Contribution of the domestic policies analysed in the two case studies to cross-border transport

## X.3.1.1 National level of Germany

Figure 158: Reference of cross-border transport (left) and the TEN-T (right) in German national policies (n=12)



Source: Author, Kaiserslautern, 2017.

Nationaler Strategischer Rahmenplan für den Einsatz der EU-Strukturfonds in der Bundesrepublik Deutschland 2007-2013 (2007)

The TEN-T transport axes are to be interlinked to a higher degree and their access to be enhanced. Economic centres shall be directly linked to them (Bundesministerium für Wirtschaft und Technologie Deutschland 2007, 64).

Six of the German *Länder*OF<sup>59</sup> get additional funds under the convergence aim. These show a lower accessibility of national and European agglomerations compared to the residual *Länder*. Therefore they shall be especially supported in the expansion of their regional and supraregional transport infrastructures (ibid., 57).

## **Operationelles Programm (OP) Verkehr EFRE Bund 2007-2013 (2007)**

The supraregional transport infrastructure shall be improved to contribute to a sustainable regional development. In this context the TEN-T is to be expanded together with other supraregional relevant transport routes (Bundesministerium für Verkehr, Bau und Stadtentwicklung 2007, 109f.). The priority projects and cross-border projects with the Eastern accession countries are to be supported with high priority (ibid., 111). Economic and logistical hubs are to be connected by secondary networks better to these primary infrastructures (109f.). They are also to be connected with other hubs in the neighbouring countries to better integrate the economic centres into the European transport network (ibid., 111ff.). European Metropolitan regions shall be developed if applicable. Job commuter linkages are to be facilitated (ibid., 115f.). Also regional centres are to be connected to these hubs. Remote and rural region shall also benefit from these connections. Furthermore, missing links of the TEN-T in all transport modes are to be established, and hinterland connection of ports enhanced which shall contribute to a higher intermodality. National infrastructures are to be renovated to remove bottlenecks (ibid., 111ff.). The internal and external accessibility is to be enhanced (ibid., 116).

The electrification of the rail network together with the application of the ERTMS is to be promoted and shall increase the interoperability (ibid., 112).

<sup>&</sup>lt;sup>59</sup> Brandenburg, Mecklenburg-Vorpommern, Saxony, Saxony-Anhalt, Thuringia, Lüneburg in Lower Saxony

## Strategie für einen nachhaltigen Güterverkehr (SNGV) (2009)

Cross-border rail transport shall be further facilitated to make it more attractive (Lambrecht et al. 2009, 70).

The *Energiekonzept für eine umweltschonende, zuverlässige und bezahlbare Energieversorgung* (*EK*) (2010) does not to refer to cross-border transport or the TEN-T.

## Raumordnungsbericht 2011 (2011)

Cross-border infrastructure is to be established, especially with the Eastern neighbouring Member States to complete the European long-distance transport networks (Bundesinstitut für Bau-, Stadt- und Raumforschung (BBSR) Germany 2012, 82). The German transport infrastructure shall be integrated into the TEN-T. Here measures to make the growing transit transport flows more environmentally friendly and minimize their burden (ibid., 209).

## Mobilitäts- und Kraftstoffstrategie der Bundesregierung (MKS) (2013)

The strategy also refers to EU directives which defined certain aims (Bundesministerium für Verkehr, Bau und Stadtentwicklung 2013, 16). Infrastructure cooperations in the field of renewable energies shall be created with the neighbouring Member States to develop common standards (ibid., 35).

# Partnership Agreement between Germany and the European Commission for the implementation of the Structural and Investment Funds in the 2014-2020 funding period (2014)

Depending on the situation of the neighbouring countries of Germany it might be very relevant to invest in transport infrastructures and their accessibility because of strong disparities on both sides of the border. The cooperation partners have to decide how to define their fields of cooperation based on other policy aims (Bundesministerium für Wirtschaft und Energie Deutschland 2014, 225).

The *Nationales Reformprogramm 2016 (NRP) (2016)* refers to transport but not to cross-border transport or the TEN-T.

## Bundesverkehrswegeplan 2030 (BVWP) (2016)

The Bundesverkehrswegeplan 2020 names several transport projects (road, rail and inland waterways) with cross-border relevance because leading to the national border which are relevant for the following case studies between Brandenburg and Lubuskie and for the Greater Region Saar-Lor-Lux+ (see nextion section):

Neither the *Klimaschutzplan 2050 (2016)* nor the *Deutsche Nachhaltigkeitsstrategie (2017)* relate to cross-border transport or to the TEN-T. However, the German sustainability strategy promotes more sustainable infrastructures also across borders to ensure an equal and fair access (Bundesregierung Deutschland 2017, 143).

## Concrete cross-border transport-related projects defined in the German national policy documents

## **Brandenburg-Poland**

- road Güldendorf A12 (B112) (first priority) (Bundesministerium für Verkehr und digitale Infrastruktur 2016, 102)
- road highway junction Spreeau Frankfurt/Oder (A12) (second priority) (Bundesministerium für Verkehr und digitale Infrastruktur 2016, 103)
- road Eisenhüttenstadt (B112) border DE-PL (B246) (second priority) (Bundesministerium für Verkehr und digitale Infrastruktur 2016, 103)
- rail Berlin-Frankfurt/Oder border DE-PL (almost completed) (Bundesministerium für Verkehr und digitale Infrastruktur 2016, 157)

## **Greater Region**

- A5 Merzig/Wellingen A5 Merzig/Schwemlingen (currently running) (Bundesministerium für Verkehr • und digitale Infrastruktur 2016, 140)
- A1 A623 (second priority) (Bundesministerium für Verkehr und digitale Infrastruktur 2016, 140) •
- A623 A620 (second priority) (Bundesministerium für Verkehr und digitale Infrastruktur 2016, 140)
- rail: Luxemburg - Trier - Koblenz - Mainz (implemented) (Bundesministerium für Verkehr und digitale Infrastruktur 2016, 160)
- rail: Ludwigshafen Saarbrücken DE-FR border (second priority) (Bundesministerium für Verkehr • und digitale Infrastruktur 2016, 171)
- IWW: Mosel (Trier) (currently running) (Bundesministerium für Verkehr und digitale Infrastruktur • 2016, 175)
- IWW: New locks in the Mosel (first priority) (Bundesministerium für Verkehr und digitale Infrastruktur • 2016, 178)

#### X.3.1.2 **Greater Region**

## **Belgium**

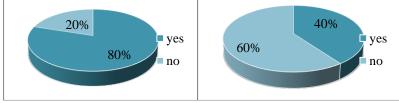
## National level

### Table 89: Belgian national policy documents analysed

Name of the policy document	
Name of the policy document	transport
Plan Pluriannuel d'Investissement (PPI) (2001-2012)	yes
Cadre de référence stratégique national de la Belgique (CSRN) 2007-2013 (2007)	yes
Plan National Climat de la Belgique 2009-2012 (PNC) (2008)	yes
Plan d'Action national en matière d'énergies renouvelables (2010)	yes
Accord de Partenariat pour la Belgique (2014) (Partnership Agreement Belgium)	
Plan de Transport SNCB (2014)	yes
Contrat de gestion 2008-2015 SNCB (2014)	yes
Contrat de gestion 2008-2015 INFRABEL (2014)	yes
National Reform Programme 2016 (2016)	yes
Plan de Transport SNCB 2017	?
Projet de plan pluriannuel d'investissements ferroviaires 2013-2025 SNCB (PPI) (2017)	yes
Source · Author Kaiserslautern 2017	

Source : Author, Kaiserslautern, 2017.

Figure 159: Relation of the Belgian national policies to cross-border transport (left) and the TEN-T (right) (n=10)



Source: Author, Kaiserslautern, 2017.

## Plan Pluriannuel d'Investissement (PPI) (2001-2012)<sup>60</sup>

A rail infrastructure connection between Athus (BE) and Meuse (FR) is to be improved (Analyse PPI 2013:20). Additionally a high speed rail connection between Bruxelles (BE) and Luxembourg (LUX) is to be enhanced (Analyse PPI 2013:25) and rail connections to France and Germany are to be improved which do not belong to the Greater Region (Analyse PPI 2013:27).

<sup>&</sup>lt;sup>60</sup> The analysis of this document is based on analytical report of the Walloon government.

## Cadre de référence stratégique national de la Belgique (CSRN) 2007-2013 (2007)

The strategic reference framework of Belgium for the funding period 2007-2013 envisages to support transport projects of European interest and the better connectitity to the TEN-T, including to secondary networks (Royaume Belgique 2007, 11). Cross-border cooperation shall contribute to the accessibility of infrastructures (ibid., 277), benefits in the collaboration with neighbouring centres shall be made use of (ibid., 240). The working commuter mobility of the German speaking Community shall be increased across borders, which, however, is mainly linked to language issues (ibid., 336).

## Plan National Climat de la Belgique 2009-2012 (PNC) (2008)

The plan refers to the White Book of the European Transport Policy of 2006 and the EU NAIADES programme which supports freight transport on waterways. The latter programme is said to be supported by the national level of Belgium (Commission Nationale Climat, Belgique 2008, 15,65).

The capacity of freight transport on the waterways in Wallonia shall be enlarged and connected to the French and BENELUX as well as German networks. Also the connection to big European ports shall be improved (ibid., 67).

## Plan d'action national en matière d'énergies renouvelables (PANER) (2010)

The plan allows for the improvement of electric cross-border transport connections with Luxemburg (CREOS), Germany. A connection to France has already been implemented in 2005. Also transformers have been established at the border (SERVICE PUBLIC DE WALLONIE 2016a, 44).

## Accord der Partenariat (2014)

The Partnership Agreement of Belgium does not aim to contribute to the seventh EU investment objective (sustainable transport) with any of the EU funds (Etat Belge 2014c, 97). And thus does not promote the enhancement of cross-border transport or the expansion of the TEN-T.

## Plan de Transport SNCB (2014)<sup>61</sup>

The transport plan of the SNCB of 2014 shall decrease the travel time between Bruxelles and Luxembourg because of the ongoing work on the rail tracks. Also the number of international trains from Bruxelles to Basel (CH) and their travel time are increased (Analyse du Plan de Transport 2014: 32). A train track from Libramont to Arlon is prolonged to Luxembourg (Analyse du Plan de Transport 2014: 40).

## Contrat de gestion 2008-2012 INFRABEL (2014)

INFRABEL shall coordinate the Belgian rail offer with international rail offer capacities for both passenger and freight transport (Etat Belge 2014a, art. 10 and 25). The rail track between Bruxelles and Luxembourg still shall be upgraded (ibid., art. 65). INFRABEL shall contribute to a better interoperability of the Belgian high speed trains and the trans-European high speed train network (ibid., art. 15).

## National Reform Programme 2016 (2016)

By the establishment of a road to Charleroi Wallonia shall be connected to the TEN-T corridor between Reims and Bruxelles (Belgique 2016, 83). However, besides that the National Reform Programme 2016 does not relate to the TEN-T.

<sup>&</sup>lt;sup>61</sup> The analysis of this document is based on analytical report of the Walloon government.

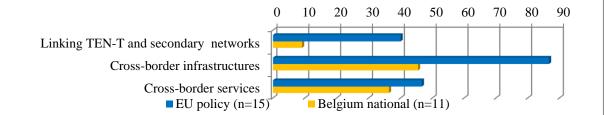
## Plan Pluriannuel d'Investissement (PPI) (2013-2025) (2017)<sup>62</sup>

The rail track from Bruxelles to Luxembourg shall be modernized. The PPI proposes investments on the Belgian side of the track (Ottignies) until the Luxemburgish border (Sterpenich). This shall diminish the travel time between the two capitals (Proposition PPI 2013: II 52). The plan aims at getting EU funding support from the European Commission referring to the Eurocaprail. However, the financial support was rejected (Analyse PPI 2013:59). Automatic weighing systems for rail freight transport shall be constructed at the Belgian borders, among others between Virton and the French border (Analyse PPI 2013:89). Additionally, the cross-border rail track from Libramont across Arlon to the Luxemburgish border is to be provided with ETCS infrastructure (Analyse PPI 2013:96). The TEN-T freight corridors are to be connected to the Belgian ports and other rail tracks. In general TEN-T funds are to be accessed (Proposition PPI 2013: II 43).

## Plan de transport de la SNCB 2017<sup>63</sup>

The new plan is currently being established including a participatory procedure with the regions, regional public transport providers and other stakeholders - also from the local level. 63 projects have been developed. The broad aims are to enlarge the offer, decrease travel times, increase the punctualty and improve the linkage between different rail connections. In the end of December 2016 the decisions on the future rail itinerary will be taken. So far no information is available concerning the final cross-border transport (SNCB 2016).





Source: Author, Kaiserslautern, 2017.

Concrete cross-border transport-related projects defined in the Belgian national policy documents

## Rail:

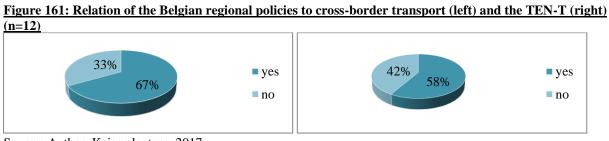
- Bruxelles Luxembourg (upgrade) (PPI 2001) + (PT SNCB 2014) (CG INFRABEL 2014) (PPI 2017)
- Ottignies Sterpenich (PPI 2017)
- Libremont Arlon (existing) +(prolonged to) Luxembourg + (ECTS infrastructure) (PT SNCB 2014) (PPI 2017)
- Virton Rodange (further promotion) (Contrat 2008-2015 SNCB)
- Arlon Rodange (further promotion) (Contrat 2008-2015 SNCB)
- Virton France (weighing infrastructure) (PPI 2017)

## Road:

• Connection of Charleroi to TEN-T corridor Reims- Bruxelles (NRP 2016)

<sup>&</sup>lt;sup>62</sup> The analysis of this document is based on analytical report of the Walloon government.

<sup>&</sup>lt;sup>63</sup> The description is based on information on the internet of the SNCB and not the document as the document had not been published until the time of writing.



Belgian regional level: Wallonia + German Speaking Community

Source: Author, Kaiserslautern, 2017.

## Schéma de developpement de l'Espace Régional SDER (1999)

The regional development concept of Wallonia aims at integrating the region into the TEN-T (Région wallonne 1999, 125, 200). It also refers to the Eurocorridor between Bruxelles and Luxembourg. Anchor points are to be established to benefit from it (ibid., 136). The cooperation with Luxemburg is to be increased because of the high importance of its capital city for the South of Belgium in terms of work and commerce (ibid., 133). In general the "Saar-Lor-Lux cooperation" in spatial development is considered to be very important for Wallonia (ibid., 163). The national roads N54 and N5 between Charleroi (BE) and Maubeuge respectively Charleville-Mèzières (FR) are to be improved (ibid., 137, 201). Additionally, new road links are to be established between Athus (BE), Longwy and Thionville (FR); Verviers (BE) and Prüm (DE) and the extension of the E42 to Trier (DE) is to be negotiated (ibid., 201). Furthermore, rail projects shall be implemented such as an enhancement of the connection between Bruxelles-Arlon and Luxembourg, establish a rail link between Meuse and Athus to the Luxemburgish border, as well as upgrading a rail track from Charleroi to Erquelinnes at the French border (ibid., 137). The waterway axes to France and the Netherlands shall be improved (ibid., 200). Also the offer of fast busses or train-trams to Luxembourg shall improve the connection (ibid., 204).

# Programme opérationnel « Compétitivité régionale et emploi » WALLONIE – Intervention FEDER 2007-2013 (2015)

The Operational Programme for the ERDF of the last funding period (2007-2013) relates to the SDER and repeats the strategic position of Liège at the node of two Eurocorridors, one of them being the transport axis from Great Britain to Paris and Germany, and thus underlines the relevance for the TEN-T flows (Gouvernement Wallon 2015, 72, 77). It shall be benefitted from the exchange of experiences across borders (ibid., 110).

## Diagnostic territorial de la Wallonie (2011)

It refers to the TEN-T and the comprehensive network which shall be established until 2050 according to the European Commission (Conférence Permanente du Développement Territorial 2011, 46).

Wallonia shall further improve its external accessibility and the connection to other European regions like it is currently being done by the expansion of the rail connection between Bruxelles, Namur and Luxembourg. Also the connections to the neighbouring regions shall be expanded because being very important for the region's development (ibid., 137). The tariffs for cross-border public transport to Luxemburg shall be harmonized with the Luxemburgish prices (ibid., 138).

The document refers to the strategies of the neighbouring regions concerning transport and presents commonalities respectively their attempts to coordinate the transport development across borders. However, the proposed actions for improval are less precise compared to the country interior mesures (ibid., 237ff.; 244).

## Projet de Plan de développement de la desserte ferroviaire en Wallonie pour la période 2013-2025 (2012)

The cross-border passenger rail connections are to be improved, among others the connection between Bruxelles, Namur, Luxembourg, Strasbourg and Basel. Additionally, the rail links to neighbouring urban hubs across borders are to be improved. In this context it is considered to be very important to harmonize and reduce the cross-border ticket prizes. Also the freight rail network of Belgium shall be connected better to the European wide network by the European Corridor C but also to Germany and the United Kingdom (TRITEL 2012, 88f.). The potential Belgian parts of the East-West European freight corridor shall be updated (ibid., 147). The cross-border connections are to be expanded to Aachen (DE) and from Quiévrain (BE) to France. The connections between Wiltz (LUX) and Bastogne (BE) could be reopened among others (ibid., 104). In Athus (BE) a direct connection to France shall be established. In general European standards are to be implemented like ERTMS on the most important tracks (ibid., 105). One of the priority projects with relevance to cross-border projects is the development of more rail tracks between Fleurus, Auvelais and Namur which shall contribute to a better freight and passenger transport from Belgium to Luxemburg and France on the Corridor C (ibid., 138). On that corridor further investments should be taken in the extension of tracks between Athus and France because the rail axis is not efficiently and directly connected to France. Additionally, the connection between Liège and Luxemburg shall be modernized to decrease the travel time and increase the capacity (ibid., 139ff.).

## Schéma de developpement de l'Espace Régional SDER (2013)

The new development concept of the Walloon region advices to take into account new cross-border cooperations with the Walloon neighbours because they might improve the transport system and the spatial development of the region (Gouvernement Wallon 2013, 6). Being situated in the centre of the European transport networks it is recommended to further improve the region's external accessibility (ibid., 12). Wallonia shall integrate its transport network into the TEN-T (ibid., 21, 34). The cross-border connections of all transport modes for freight as well as passenger transport shall be improved (ibid., 34ff.). Examples are the improvement of the road connection of Charleroi to the French border; as well as the rail connection between Bruxelles, Namur, Arlon and Luxembourg which further leads to Strasbourg and Basel. Furthermore, the rail connection between Libramont and Bastogne (BE) shall be prolonged to Wiltz (LUX) (ibid., 70ff.).

A coordination of the cross-border transport services is to be ensured by the development of a strategy for a cross-border transport service network in the metropolitain centres relevant for the Walloon region such as Luxembourg and Liège in cooperation with relevant transport providers (ibid., 65).

The *Plan wallon d'aides aux modes de transport alternatifs à la route 2014-2020* does not refer to cross-border transport but offers funds to support alternative freight transport modes to the road (SERVICE PUBLIC DE WALLONIE 2013). Also the document *La Stratégie wallonne pour une croissance intelligente durable et inclusive en partenariat avec l'Union Européenne Programme opérationnel FEDER (2014)* does not relate to cross-border transport or the TEN-T. However, it has general transport aims for the internal transport. Additionally, the synergies and complementarities with neighbouring centres across borders shall be increased in Wallonia, for instance in Arlon (Gouvernement Wallon 2014b, 36). Besides that the *Plan Marshall 4.0 (2015)* defines aims for transport development but not for cross-border transport, the TEN-T or cross-border cooperation.

## **Revitalisation du fret ferroviaire en Wallonie (2015)**

According to this strategy Wallonia shall increase its relevance within Europe and internationally for rail freight transport and find European partners (SERVICE PUBLIC DE WALLONIE 2015, 193). Being part of the North Sea Mediterranean Corridor, the Wallonie wants to improve the rail section

between Athus and Meuse and thereby also enhance the section between the French border and Athus (BE) (ibid., 22f., 96). The document clearly refers to the TEN-T and the involvement of Wallonia in its freight corridors. The North Sea Mediterranean freight corridor needs to become more competitive and attractive by a reduction of travel time, transport costs and barriers at the borders (ibid., 38f.).

## Schéma Régional de Mobilité de la Wallonie (SRM) (2017)

The concept shall develop a vision of development which is coordinated across borders (SERVICE PUBLIC DE WALLONIE 2016a, 4). Also the regional transport policies are to be coordinated across the border. Additionally, data on mobility flows is to be exchanged, transport planning and cross border tickets – including the information - are to be coordinated among others. Besides that park and ride infrastructures and freight flows on waterways are to be coordinated. Regular meetings between the focussedities responsible for transport planning as well as other (European) transport stakeholders (e.g. in the working group of the WSAGR of the Greater Region) are to be organized across borders (ibid., 24). The road E25 between Arlon and the Luxemburgish border is to be expanded to 2x3 tracks (ibid., 12) and the safety is to be increased as the road is also expanded on the Luxemburgish side (ibid., 126).

The cross-border ticket system and the public transport connections between Wallonia and Luxemburg are to be improved. Extra fees across borders are to be abandoned (SERVICE PUBLIC DE WALLONIE 2016b, 42, 2016a, 62) Among others, the rail connection between Bruxelles - Namur (BE) and Luxembourg (LUX) is to be accelerated. Additionally, the road infrastructure in Sterpenich at the Luxemburgish border is to be renovated (SERVICE PUBLIC DE WALLONIE 2016b, 42).

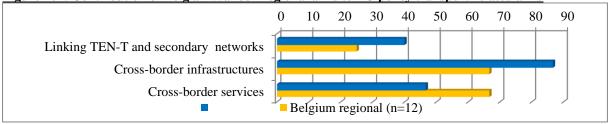
The freight platform in Athus is said to strongly compete with the logistic platform in Bettembourg (LUX). Therefore its attractiveness is to be increased (ibid., 59). The new rail connection from Athus (BE) to Mont St. Martin (FR) might contribute to two freight rail connections per day to France. (ibid., 59).

Another action aims at facilitating the access to EU funds, among others the Connecting Europe Facility related to three TEN-T corridors that cross Wallonia as well as the ERDF (SERVICE PUBLIC DE WALLONIE 2016a, 45). Also the accessibility to European rail and waterway freight corridors shall be enhanced. In this context regional needs are to be promoted on international level and EU funds are to be made use of (SERVICE PUBLIC DE WALLONIE 2016a, 127, 2016a, 31).

## Regionales Entwicklungskonzept der deutschsprachigen Gemeinschaft (2009/2011/2015)

According to the concept the public transport as well as the bicycle paths of the German Speaking Community (DG) of Wallonia needs to be enhanced across borders, especially in the south (Deutschsprachige Gemeinschaft Belgiens 2009, 68). The DG shall fortify its position in cross-border cooperation structures like the Greater Region as being a border region itself (Deutschsprachige Gemeinschaft Belgiens 2015, 7f.).

According to Hilligsmann the German Speaking Community of Belgium complements the national and regional policies in the field of transport in the frame of its competences, e.g. in education and research. They are said to monitor the national and regional transport policies and check if there are overlaps with their competences so that they can complete them (Interview Hilligsmann 2016).



### Figure 162: Contribution of Belgian Walloon regional aims to EU policy transport related aims

Source: Author, Kaiserslautern, 2017.

Cross-border projects promoted in the Belgian regional policy documents

### Rail:

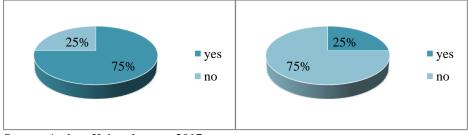
- Bruxelles Namur Arlon Luxembourg (enhancement) (SDER 1999) (DTW 2011) (PPDDFW 2012) (SDER 2013) (DPR 2014) (SRM 2017)
- Meuse Athus Luxembourgish border (new link) (SDER 1999)
- Charleroi Erquelinnes French border (upgrade) (SDER 1999)
- Wiltz Bastogne Libramont (reopening) (PPDDFW 2012) (SDER 2013)
- Athus France (expansion of tracks) Mont St. Martin (PPDDFW 2012) (SRM 2017)
- Fleurus, Auvelais and Namur (expansion of tracks) (PPDDFW 2012)
- Liège Luxembourg (Modernization) (PPDDFW 2012)
- Athus French border (enhancement) (RFFW 2015)

### Road:

- Charleroi Maubeuge (improvement) French border (SDER 1999) (SDER 2013)
- Charleroi Charleville-Mèzières (improvement) (SDER 1999)
- Athus Longwy Thionville (new road links) (SDER 1999)
- Verviers Prüm (new road links) (SDER 1999)
- E42 to Trier (extension) (SDER 1999)
- E24 Arlon Luxembourg (expansion of tracks) (SRM 2017)
- Sterpenich LUX (renovation) (SRM 2017)

## Belgian subregional level: Province of Luxembourg and Province of Liège

Figure 163: Relation of the Belgian subregional policies to cross-border transport (left) and the TEN-T (right) (n=8)



Source: Author, Kaiserslautern, 2017.

## Livre blanc de la mobilité en province de Luxembourg (2010)

For the rather rural province of Luxembourg the field of cross-border transport is very important because of the high number of cross-border commuters mainly depending on the individual car. These transport flows –also to France - need to be taken into account stronger (Province de Luxembourg 2010, 11f.).

## Déclaration de politique générale de législature 2012-2018 Province de Luxembourg(2012)

The high commuter flows to Luxembourg make it necessary to coordinate the development of public transport with Luxemburg and actively involve them (Conseil provincial de la Province de Luxembourg

2012, 10). The development strategies of the neighbouring regions shall be taken into account (ibid., 15).

## Stratégie territoriale intégrée pour la province de Luxembourg (STI) (2015)

According to the integrated spatial strategy the position of the province of Luxembourg on a Eurocorridor between Bruxelles, Namur and Luxembourg is decisive. It shall make use of the potentials and development perspectives of its linkages to Luxemburg, especially concerning passenger, freight and innovation flows and react on the connected challenges. The connection between Bastogne (BE) and Luxemburg shall be improved (Réseaulux 2015, 68f.). Cross-border cooperations are to be fostered between the municipalities to focus on their needs (ibid., 72). The freight terminal of Athus (BE) shall be connected better to France, Luxemburg and the North Sea ports (ibid., 77).

## Plan régional de mobilité durable (PRMD) – Opinion of the Province of Luxembourg (2015)

The regional plan on sustainable mobility (PRMD) shall enure a coherent vision for the future transport development which includes cross-border strategies (IDELUX 2015, 3). However, several important characteristics of the province of Luxembourg whose transport needs are strongly influenced by the city of Luxembourg have not been taken into account: The cross-border mobility to Luxembourg should be supported further and improved in cooperation with Luxemburg (ibid., 5). A cross-border ticket harmonization is considered to be very important as well as the finalization of works on the cross-border rail tracks to Luxembourg which makes the mode unattractive. Existing lines are to be maintained whereas new lines are to be established to reduce the traffic congestions. Trains from Rodange (BE) and Luxembourg (LUX) should be developed every half our (ibid., 8). The container terminal of Athus (BE) should be connected better to Mont-Saint-Martin (FR) (ibid., 11).

Only one of the three policy documents of the Liège province analysed relates to cross-border transport. Although the *Déclaration de politique générale 2012-2018 Province de Liège (2012)* aims at involving the province to a stronger degree in the INTERREG programme of the Greater Region (Province de Liège 2012, 36) the policy document does not relate to cross-border transport or TEN-T but transport in general like the document *Réalisation d'un plan d'actions territorial en faveur de l'Énergie durable pour la province de Liège (2015)*.

## Schéma de développement territorial and plan provincial de mobilité (both in preparation)

The SDT and PPM aim at improving cross-border sections but it is not the main focus of the documents. Both policy documents do not refer to the TEN-T. In their establishment process the neighbouring countries will be invited to inform them about the territorial development aims of the province and to coordinate them with the other regions (Interview Antoine 2016).

Besides the cooperation within the Greater Region the province of Liege is - according to Antoine - strongly oriented to the Euregio Maas-Rhein which involves North-Rhine-Westphalia (DE) and the Netherlands as well as the Belgian Flemish region. Here also cross-border transport projects are conducted to improve the public transport offer and the development of cross-border tickets. For the province of Liège the cooperation in the field of transport in the Euregio Maas-Rhein has a higher focus than the one within the Greater Region. This is explained with the missing direct border of the province to France. The highest relevance in terms of transport is seen in the connection to Luxemburg because there are several commuters from the Southern part of the province e.g. St. Vith which work in Luxemburg but live in the province of Liège because of lower housing prices (ibid.).

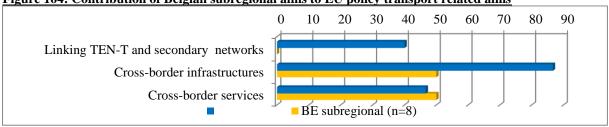


Figure 164: Contribution of Belgian subregional aims to EU policy transport related aims

Source: Author, Kaiserslautern, 2017.

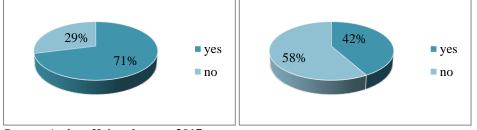
Concrete cross-border transport-related projects defined in the Belgian subregional policy documents

## Rail:

- Station in Libramont between Bruxelles and Luxembourg (creation) (SDEL 2012)
- Bastogne Luxembourg (improvement) (STI 2015)
- Rodange Lux (more frequent train connection) (PRMD 2015)
- Athus (logistical terminal) Mont St. Martin (improvement) and to LUX (PRMD 2015) (STI 2015)

## Belgian Policy aims - overview

## Figure 165: Relation of the Belgian policies to cross-border transport (left) and the TEN-T (right) (n=31)

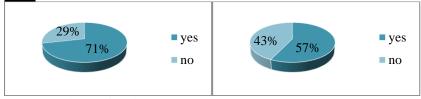


Source: Author, Kaiserslautern, 2017.

## France

National level

Figure 166: Relation of the French national policies to cross-border transport (left) and the TEN-T (right) (n=7)



Source: Author, Kaiserslautern, 2017.

## DTA (Directive territoriale d'aménagement) des Bassins miniers Nord-Lorrains (2005)

The DTA relates to the North-South Eurocorridor between Bruxelles and Lyon/Dijon which is said to have increased the freight transport flows between Belgium and France. The corridor should be relieved by using additional transport axes (Préfecture de Région Lorraine 2005, 26 f., 74). Also the freight rail connections between Belgium, Longwy and Toul (FR) should be amended (ibid., 74). The motorways between Luxemburg, Longwy and the river valleys Fensch and Orne shall be improved and upgraded as well as connected to the motorway to Paris (ibid., 29).

The road connections between the Sillon lorrain and the neighbouring countries Belgium, Luxemburg and Germany are to be improved (ibid., 69). The A4 from Paris to Strasbourg and further to Frankfurt (Main) (DE) is considered as a very important European axis and shall be enhanced. Also a national

road from Longwy to Belgium needs to be expanded. The expansion of the rail road line between Baudrecourt, Forbach (FR) and Saarbrücken (DE) shall contribute to a faster travel between Paris (FR) and Frankfurt (DE) (ibid., 27ff.). Agreements between France and Germany are to be implemented to better link the French and German high speed rail connections (ibid., 75).

The importance of Luxembourg in terms of employment leads to strong cross-border transport flows from France and congestions (ibid., 58). The contribution rate of Luxemburg to French transport investments in the context of cross-border commuting to Luxembourg is to be negotiated (ibid., 122). The DTA describes several cross-border regional cooperation spaces such as between Longwy (FR), Rodange (LUX) and Athus (BE) as well as between Saarbrücken (DE) and Moselle-Est and Esch/Alzette (LUX), Villerupt and Audun-le-Tiche (FR) of which some conduct projects to improve cross-border transport services (60f.). There is also a cross-border project which aims at reusing a rail track between Volmerange (FR) and Dudelange (LUX) (ibid., 61). It should be investigated to revive discontinued transport tracks between France and Luxemburg. Carpooling infrastructure should be developed to employment centres such as Luxemburg, Metz and Saarbrücken (ibid., 96). The Saarbahn (DE) shall be connected to the new transport nodes of Moselle-Est (FR) (ibid., 121). The street from France to Esch sur Alzette shall be improved (121). The sillon lorrain shall become an important multimodal logistical platform for the Saar-Lor-Lux region. Cross-border agglomerations should cooperate in urban planning (ibid., 67) and other relevan fields (ibid., 119f.). The transport providers of the cross-border region shall coordinate their transport offer (ibid., 86). Also the neighbouring countries should coordinate their transport policies and develop cross-border multimodal transport concepts (ibid., 120).

## Cadre de Référence Stratégique National (2007-2013) (2007)

The National Reference Framework relates to the TEN-T priority projects for which a special funds are available. The ERDF should complement the transport development by focussing on local, interregional and regional projects. High speed rail infrastructure shall be expanded with European added value (République française 2007, 70f.). Cross-border regions have developed and should be taken into account for common spatial planning (ibid., 77). Cross-border transport studies as well as the improvement of the existing systems and safety measures can be funded. The cross-border accessibility shall be enhanced (ibid., 83). In the transnational cooperation the transport accessibility and key infrastructures shall be improved (ibid., 84). Cross-border transport to the Saarland (DE) shall be improved by inter-municipal cooperation and the development of a common strategic and technical partnership (ibid., 38).

## Rapport "Mobilité 21 – Pour un schéma national de mobilité durable" (2013)

The report 'Mobility 21' underlines that several projects of the SNIT belong to the TEN-T and thereby integrate the EU- to the French network. Furthermore the projects contribute to the aims of the EU transport policy. Cross-border passenger and freight transport shall be improved (Commission Mobilie 21, 15).

Neither the *Partnership Agreement France (2014)* nor the *Programme National de Réforme (2015)* relate to the TEN-T or cross-border transport. The Partnership Agreement offers funding for several transport aims and the National Reform Programme describes legal changes in the national law which partly concerns the transport development and formulates some transport objectives.

## Contrat de plan État – Région (CPER) en Lorraine 2015-2020 (2015)

According to the CPER the transport infrastructure of Lorraine shall be well connected to its neighbouring regions (Commissariat Général à l'Égalité des Territoires 2015, 2). Territorial investments in the cross-border cooperation and the Greater Region can be co-funded to establish a polycentric

metropolitain cross-border region among others (ibid., 17). The road between the motorway A30 and Luxembourg respecitively Belval is to be improved and can be funded (ibid., 17).

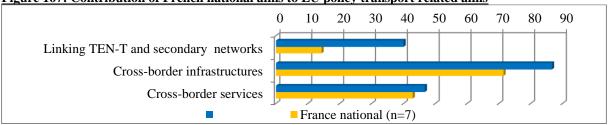


Figure 167: Contribution of French national aims to EU policy transport related aims

Source: Author, Kaiserslautern, 2017.

*Concrete cross-border transport-related projects defined in the French national policy documents* Rail:

- (Toul) Longwy Belgium (improvement) (DTA)
- (Paris) Baudrecourt Forbach Saarbrücken (Frankfurt) (expansion) (DTA)
- Volmerange Dudelange (reusage) (DTA)
- Perpignan Bettembourg (improvement) (SNIT)

Road:

- Luxembourg Longwy river valleys Fensch and Orne (upgrade+connection to motorway to Paris) (DTA)
- A 30 and A28 Longwy BE (expansion) (DTA)
- Sillon lorrain BE (improvement) (DTA)
- Sillon lorrain DE (improvement) (DTA)
- Sillon lorrain LUX (improvement) (DTA)
- Esch sur Alzette France (improvement) (DTA)
- A31 Nancy Metz Thionville Luxembourg (expansion) (SNIT)
- Road between A30 and Luxembourg/Belval (improvement) (CPER)

## Regional level: Lorraine

## Schéma Régional Climat Air Énergie de Lorraine (SRCAE) (2012)

The energy consumption is very high in Lorraine because of the European transport routes which cross the region (Région Lorraine France 2012, 22). In the *Département* Moselle which directly borders Germany and Luxemburg the highest  $CO_2$  emissions are produced, possibly because of the strong commuter flows, mainly using indidual cars (ibid., 56). Transport services across borders have been increased based on growing commuter flows and to reduce the congestion of the roads (ibid., 54). Carpooling infrastructures should be developed that can be used by cross-border commuters as well (ibid., 82).

## Pacte Lorraine 2014-2016 (2013)

The Pacte Lorraine underlines the importance of the Greater Region and cross-border region for Lorraine also in the field of transport (Région Lorraine France 2013, 6). The North-South transport axis of Lorraine is considered to be an important EU transport corridor (ibid., 83). The road connection (A30) from Lorraine to Belval (LUX) and the A4 in Luxemburg shall be developed. The *Département* Meurthe-et-Moselle should ensure the linkage to the French motorway (ibid., 87).

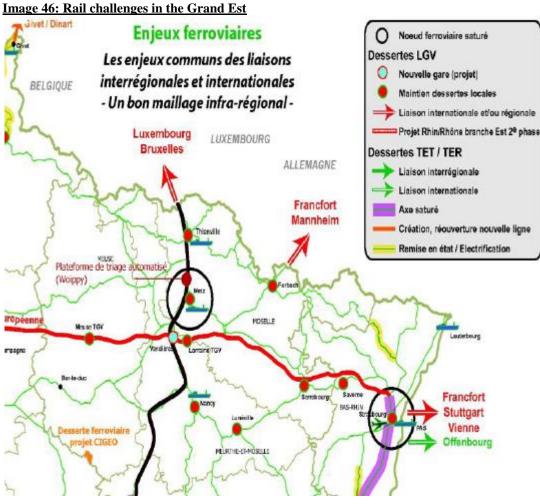
## Schéma Régional de Cohérence Ecologique de Lorraine (SRCE) (2014)

The regional concept of ecological coherence of Lorraine treats the ecological impact of transport infrastructures among others. In this context it is also to cooperate across borders with its three

neighbouring countries because the challenges do not stop at borders (Région Lorraine 2012, 15). However, the concept does not relate to cross-border transport or the TEN-T.

## Aménagement du Territoire, Transports, Mobilité (2015)

The document foresees the modernization of a French section of the rail connection between Luxembourg (LUX) and Dijon which is strongly congested (see **Image 46**) (CESER Alsace, Champagne Ardenne et Lorraine 2015, 14)



Source : ibid., 12.

The road A31 needs to be updated and expanded between Thionville and the Luxemburgish border to improve the mobility flows across borders. One track shall be reserved for carpooling and public transport (ibid., 16ff.).

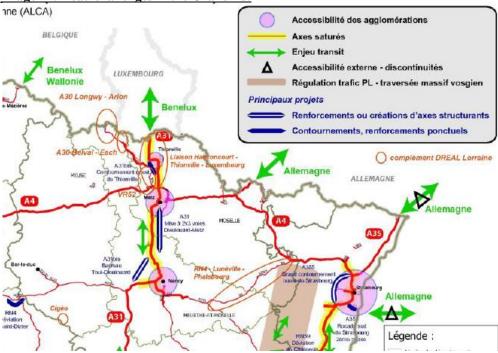
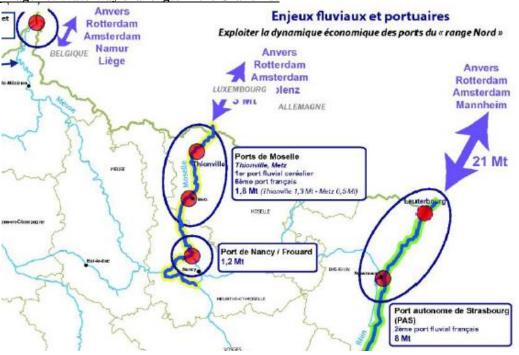


Image 47: Road challenges in the Grand Est

### Source : ibid., 15

Until 2050 the Saône shall be connected to the Moselle and the Rhine River to increase the freight waterway connection to the European network (ibid., 23).



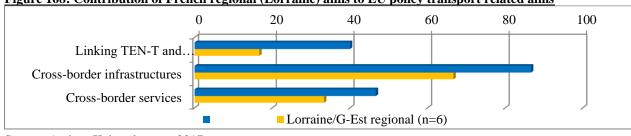


Source : ibid., 21.

Stratégie Régionale d'Innovation de la Région Lorraine (SRI-SI) (2015)

The regional innovation strategy of Lorraine focuses on the development of innovations and research – among others in the field of transport. In this context Lorraine also cooperates with Luxemburg and

Belgium (Région Lorraine France 2015, 61). However, the strategy does neither focus on cross-border transport nor on the TEN-T.



#### Figure 168: Contribution of French regional (Lorraine) aims to EU policy transport related aims

Source: Author, Kaiserslautern, 2017.

## *Concrete cross-border transport-related projects defined in the French regional policy documents* Rail:

- Bruxelles Luxembourg Vandières Saarbrücken (improvement) (LOR2020)
- Luxembourg Dijon (modernization) (ATTM 2015)
- + Image 1-3: Road Networks of the Greater Region

#### Road:

- A31 Thionville LUX (expansion+update) (LOR2020) (ATTM 2015)
- A30 and A28 : link LOR and BE (improvement) (LOR2020)
- A30 Lorraine Belval (PaLor)
- A4 in Luxembourg (expansion) (PaLor)

### Waterways :

- Saône Mosel Rhine (connection) (ATTM 2015)
- + Image 1-3: Waterway and Road Networks of the Greater Region

## Sub-regional level: Départements

## Schema des transports conference de presse du 3 septembre 2009 (Meuse) (2009)

The transport concept which is to be established shall contain several amendments in the transport services of the *Département* but does not relate to cross-border transport or the TEN-T.

## Transport et routes – Se déplacer, se rapprocher (Meurthe-et-Moselle) (2008)

The *département* aims at strengthening its transport network at the intersection of the European network (Conseil Général de Meurthe-et-Moselle 2008, 3). However, it does not refer to cross-border transport or the TEN-T.

# (Diagnostic préalable à l'élaboration du) Schéma Départemental d'Amélioration de l'Accessibilité des Services au Public (SDAASP) (*Meurthe-et-Moselle*) (2016)

The preparatory document for the establishment of the concept on the improvement of the accessibility of public services of the *Département* Meurthe-et-Moselle underlines the importance of rail passenger transport services from Longwy-Rodange (FR) to Luxembourg because of the high number of cross-border commuters (Conseil départemental Meurthe et Moselle 2016, 9)

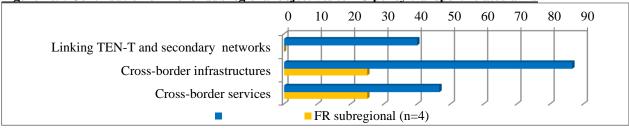


Figure 169: Contribution of French subregional objectives to EU policy transport related aims

Source: Author, Kaiserslautern, 2017.

*Concrete cross-border transport-related projects defined in the French subregional policy documents* Rail:

•	Longwy - Rodange - Luxembourg (maintenance) (DPSDAASP)
Road:	
•	Between Dept. Moselle (Alzette Valley) and Belval (new) (PDHMoselle)

## Inter-municipal level

## SCoT de l'Agglomeration Thionvilloise SCoTAT (2014)

The SCoT of Thionville aims at updating the old transport objectives because of the strong transport flows within the Greater Region and new cooperations. Public transport services should be developed across borders, from Thionville especially to Luxembourg, Belval and Trier. Cross-border transport in general to Belgium, Luxemburg and Germany is to be improved. An infrastructure concept for the Greater Region shall be established to improve the decentral transport connections to Germany and Luxemburg (Agglomeration Thionvilloise 2014b, 20). Between Belval (LUX) and Thionville as well as the Valley of Fensch (FR) the *Ecocité* shall be developed. The road A31 from Metz to Luxembourg shall be expanded with a third track (ibid., 18f.). The high speed rail track between Nancy and Luxemburg shall increase its capacity (Agglomeration Thionvilloise 2014a, 21). Besides that the accessibility of the rail stations by public transport shall be enlarged on this track. The A30 should also be prolonged to Longwy (BE): The section between Richemont and the Belgian border shall be expanded by a second track. Additionally, the French and Luxemburgish transport providers shall sign agreements to allow the Luxemburgish service providers to access French municipalities (ibid., 22f.). Caarpooling is to be supported especially to Luxmebourg (DOO:33).

Concerning rail freight transport the track between Luxembourg and Metz shall be expanded in the long term to increase the capacities. The A31 and A30 should improve their access from Thionville to the German road A8 and the A30 should be prolonged to Luxemburg (A4) (Agglomeration Thionvilloise 2014b, 18f.). Also the connection between Bettembourg (LUX) and Perpignon (FR) is to be enhanced (Agglomeration Thionvilloise 2014a, 28).

The crossing of the region by the Eurocorridor C2 from the North Sea to the Mediterranean Sea and the Eurocorridor C3 between Manche and Eastern Europe shall be supported and made use of to improve the freight transport on rail and waterways (ibid., 28).

## SCoT de l'arrondissement de Sarreguemines (2014)

According to the policy document the territory of the SCoT of Saareguemines shall become part of the metropolitain polycentric cross-border region of the Greater Region (Syndicat Mixte de l'Arrondissement de Sarreguemines 2014b, 10). The development of the territory shall benefit from its position between European transport networks and development axes, among others between Nancy (FR) and Saarbrücken (DE) (ibid., 10f.). Saarbrücken and Zweibrücken (DE) are important and

attractive poles for the French region - among others in terms of employment and the cooperation and connections across borders are to be expanded (ibid., 11f.). The cooperation between the two German regions Rhineland-Palatinate and the Saarland is to be enhanced (ibid., 17). The transport of the crossborder commuters is to be improved in with support of the German enterprises (Syndicat Mixte de l'Arrondissement de Sarreguemines 2014a, 12). Furthermore, some Germans live in the French border municipalities (PADD:11f.). The connection to external centres – also across borders – is to be improved to benefit from their attractiveness (12). Saareguemines shall be connected better to the high speed rail connection between Paris (FR) and Frankfurt (DE). Furthermore, the tram-train between Saarbrücken (DE) and Saarguemines shall be maintained (Syndicat Mixte de l'Arrondissement de Sarreguemines 2014b, 13). The rail connection between Saarbrücken and Strasbourg (FR) via Saareguemines is to be secured permanently. The transport rail and bus linkages between Bitche (FR) and Zweibrücken as well as Pirmasens (DE) are to be improved (ibid., 13). In this connection the cooperation between the involved actors should be enhanced (ibid., 15).. The public transport providers should cooperate to simplify the offer of cross-border services. It is envisaged to established a cross-border transport provider focussedity as public transport services across are to be improved to foster exchanges concerning employment and commerce across borders. 'Soft' transport modes and a higher intermodality are to be fostered across borders. Also the road tracks to Germany are to be improved. The congestion across borders is to be minimized by carpooling offers (Syndicat Mixte de l'Arrondissement de Sarreguemines 2014a, 10ff.). Image 8 shows a map of the SCoT illustrating the public transport projects (in blue and green) as well as important transport road and rail axes - also across borders.



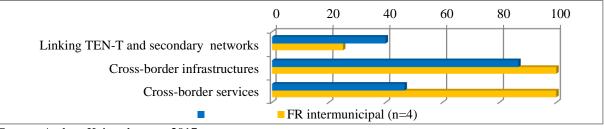


Source: SCoT Sarreguemines, Doc graph (2014) : 8,

# SCoT du Val de Roselle (2009).

According to the SCoT three main transport axes for a tram-train across borders are to be established and prolong the existing *Saarbahn* and use existing old rail tracks. Public transport services are to be developed to Saarbrücken (DE). The Saar-Bahn is to be prolonged further in France (PADD: 10) to improve cross-border transport (Syndicat Mixte de Cohérence du Val de Roselle 2008, 19). A contact person for cross-border transport issues shall be defined to simplify the cooperation across borders. New cross-border roads are to be established, among others across the RD32 in Forbach (FR). Cross-border bicycle lanes are to be established – however, primary for touristic reasons (ibid., 19f.).

Figure 170: Contribution of the French intermunicipal policies' objectives to EU policy transport related <u>objectives</u>



Source: Author, Kaiserslautern, 2017.

Concrete cross-border transport-related projects defined in the French intermunicipal policy <u>documents</u>

Rail:

- Meurthe et Moselle Esch (expansion) (ScoT Nord54)
- Nancy Luxembourg (higher capacity) (SCoTAT)
- Luxembourg Metz (expansion) (SCoTAT)
- Bettembourg Perpignan (improvement) (SCoTAT)
- Connection Sarreguemines to rail corridor Paris-Frankfurt (Improvement) (SCoTSG)
- SB-Sarreguemines-Strasbourg (maintenance) (SCoTSG)

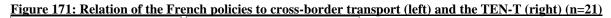
Road:

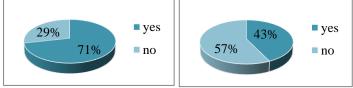
- A28 BE-LUX border (expansion) + connection to RN52 (FR) ) (ScoT Nord54)
- CarPooling Infrastructure on RD906 Lux (ScoT Nord54)
- CarPooling Infrastructure on Avenue d'Europe Lux (ScoT Nord54)
- A31 Metz Luxembourg (Expansion) (SCoTAT)
- A 30 Longwy (Prolongation) (SCoTAT)
- A30 Richemont BE (expansion) (SCoTAT)
- A30 Thionville A8 (Germany) (improvement of access) (SCoTAT)
- A 30 Luxembourg (prolongation) (SCoTAT)
- RD32 Forbach DE (new) (ScoTVRos)

Public transport

- Thionville Luxembourg (new) (SCoTAT)
- Thionville Belval (new) (SCoTAT)
- Thionville Trier (new) (SCoTAT)
- Sarreguemines SB (expansion) (SCoTSG)
- Sarreguemines ZW (expansion) (SCoTSG)
- SB Sarreguemines (Maintenance tram-train) (SCoTSG)
- Bitche Zweibrücken (Bus+rail)(Improvement) (SCoTSG)
- Bitche Pirmasens (Bus+rail)(Improvement) (SCoTSG)
- + image 7/8: Transport orientations of the SCoT Arrondissement Sarreguemines
- SB- Saarbahn prolongation to Val de Roselle (ScoTVRos)

### French Policy objectives - overview



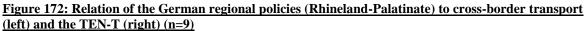


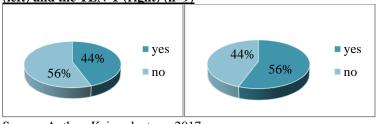
Source: Author, Kaiserslautern, 2017.

## Germany

## Regional level

### Rhineland-Palatinate:





Source: Author, Kaiserslautern, 2017.

### Landesverkehrsprogramm RLP (2000)

The Landesverkehrsprogramm refers to the influence of European and national transport policy on the development of transport services and infrastructures (Ministerium für Wirtschaft, Verkehr, Landwirtschaft und Weinbau Rheinland-Pfalz 2000, 11). The rail track POS-Nord between Paris (FR) and Mannheim (DE) through Eastern France, Saarbrücken and Kaiserslautern (DE) needs to be expanded for the economic exchange across borders. Therewith the connection to Metz (FR) is also to be improved. More rail service connections are to be developed on this track (ibid., 95; 148). Furthermore, the connection between Luxemburg (LUX), Trier, Koblenz and Mainz (DE) shall be improved (ibid., 95). The major infrastructures shall be connected across borders with the European tracks (ibid., 104f.). The TEN-T development shall be fostered because being very important for the transport development of the region and its connection to important European poles (ibid., 118). The A60, being part of the TEN-T, between Wittlich and Bitburg (DE) shall be developed to link the region to the Belgian motorways which is to improve the accessibility to the Belgian, French and Dutch networks (ibid., 121). Also a road between Wörth (DE) and the French former region Alsace shall be built. The connection to the region Lorraine shall also be improved by expanding the B10 between Pirnasens and Landau (DE) and establishing a regional road between Zweibrücken and Hornbach (DE) (ibid., 122). The motorway B51 is to be enhanced between Cologne, Trier and Saarbrücken (DE) is to be enhanced to disburden Trier from the strong transport flows from Metz and Thionville (FR) as well as Luxemburg (ibid., 123). The national road B38 shall be improved from Landau to the Schweigen (DE) at the French border (ibid., 125). The national road B700 is considered to have a high relevance for the cross-border transport and development of Alsace (FR) and the German border region therefore a continuus connection between the junction of the A8 to the road of the *Départment* 35A is to be established. Therewith Zweibrücken (DE) is to be linked efficiently to the supraregional French road network (ibid., 130). Common traffic management plans are to be developed with France and

Luxemburg (ibid., 137). Rhineland-Palatinate participated in a EU wide project on transport telematics to improve the coordination of telematics across-borders and within the EU (ibid., 138). The rail roads of Rhineland-Palatinate which are to be expanded are part of the Trans-European rail network which shall improve the cohesion of the European metropolitain centres. These investments shall benefit the economic development of the region (ibid., 145). Tiliting trains are to be put into service between Luxemburg (LUX) and Frankfurt (DE). Besides that the infrastructure at the border to Luxemburg (Igel(DE)) is to be enhanced to increase the speed of the service connections (ibid., 159). Also direct service connections across borders from Wörth to Lauterbourg (FR) are redeveloped based on a coordination with the French transport (ibid., 172). The connection between the rivers Saar, Rhine and Mosel with the French rivers Rhône and Seine which are part of the Trans-European waterways shall be promoted (ibid., 175). Cross-border bicycle paths are to be expanded next to the border rivers Rhine and Mosel (ibid., 194)

## Landesentwicklungsprogramm Rheinland-Pfalz (LEP IV) (2008)

The spatial policy describes Rhineland-Palatinate to be strongly shaped by the EU transport policy because of its central position within the EU. The regional should be connected to the TEN-T and connected to metropolitain regions (Ministerium des Innern und für Sport Rheinland-Pfalz 2008, 145). The transport development of the region is to be steered based on the *Landesverkehrsprogramm 2000* and the TEN-T (ibid., 147). The LEP portrays the long distance rail connection between Mannheim (DE) and Saarbrücken which is to be expanded to Metz and Paris (FR) as well as the connection between Koblenz and Trier (DE) to Luxembourg (LUX)(ibid., 149). Portrayed cross-border supraregional rail connections are the connection between Trier (DE) and Thionville (FR) and between Ludwigshafen, Karlsruhe (DE) and Strasbourg (FR). The depiction of both connections across borders are to be expanded: the A60 and B50 between Liège (BE) and Rheinböllen (DE) as well as the A65 from Wörth (DE) to Strasbourg (FR) (ibid., 153). The LEP IV calls for an early coordination of cross-border transport plannings. The cooperation within the Greater Region is to be expanded and the cooperation across borders, supported by the ETC shall be strengthend so that the region can benefit (ibid., 63f.).

Both, the strategy *Perspektiven für Rheinland-Pfalz -Nachhaltigkeitsstrategie (2011)* and the *Operationelles Programm des Landes Rheinland-Pfalz für den EFRE 2014-2020 (2014)* refer to transport but neither to cross-border transport nor the TEN-T. Also the *Innovationsstrategie Rheinland-Pfalz (2014)* does not refer to cross-border transport or the TEN-T but promotes cross-border cooperation in general (Rheinland-Pfälzischer Ministerrat 2014, 72, 76f.).

## Klimaschutzkonzept des Landes Rheinland-Pfalz (2015)

The concept refers to the Connecting Europe Facility and the TEN-T and describes its eligible funding themes (Ministerium für Wirtschaft, Klimaschutz, Energie und Landesplanung Rheinland-Pfalz 2015, 113). However, it does not formulate aims concerning cross-border transport.

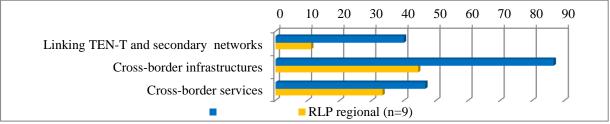
## Zukunftskonzept Nahverkehr für Rheinland-Pfalz (2015)

Luxembourg shall be better integrated into the German transport rail services with an ourly offered connection to Koblenz (Ministerium für Wirtschaft, Verkehr, Landwirtschaft und Weinbau Rheinland-Pfalz 2014, 9). The rail connections between Wittlich, Trier and Luxembourg are to be offered every half an hour because of the cross-border commuters (ibid., 11). The Trier West track is to be reactivated to decrease the travel time to Luxembourg and to remove the bottleneck (ibid., 21). Additionally, the train from Trier to Perl (DE) shall be prolonged to Thionville (FR) (ibid., 11).

## Koalitionsvertrag Rheinland-Pfalz 2016-2021 (2016)

The integration of the transport network of Rhineland-Palatinate into the European network shall be improved (SPD Rheinland-Pfalz, FDP Rheinland-Pfalz, and Bündnis 90/Die Grünen Rheinland-Pfalz 2016, 48). Cross-border cooperations in the Greater Region shall be promoted and expanded (ibid., 135). However, the contract does not refer to improvements in cross-border transport.

# Figure 173: Contribution of the German regional (Rhineland-Palatinate) policies' objectives to EU policy transport related objectives



Source: Author, Kaiserslautern, 2017.

Concrete cross-border transport-related projects defined in the German regional policy documents of *Rhineland-Palatinate* 

Rail:

- Paris Metz -SB –KL Mannheim (expansion+more connections) (LVP RLP) (LEP IV)
- Luxembourg Trier Koblenz Mainz (improvement) (LVP RLP) (LEP IV)
- Luxembourg Frankfurt (tilting trains) (LVP RLP)
- Luxembourg Igel (enhancement) (LVP RLP)
- Trier Thionville (maintenance) (LEP IV)
- Luxembourg Koblenz (more connections) (ZKNV)
- Wittlich Trier Luxembourg (more connections) (ZKNV)
- Trier West track Luxembourg (reactivation) (ZKNV)
- Trier Perl –prolongation to Thionville (ZKNV)

Road:

- A60 Wittlich Bitburg BE motorways (new connection) (LVP RLP)
- B10 Pirmasens Landau FR (LVP RLP)
- Road between Zweibrücken Hornbach FR (new road) (LVP RLP)
- B51 Köln Trier SB Metz Thionville Luxembourg (enhancement between Köln and SB) (LVP RLP)
- B38 FR- Schweigen- Landau (improvement) (LVP RLP)
- Zweibrücken FR (B700 A8 D35A) (new connection) (LVP RLP)
- A60 + B50 Liège Rheinböllen (expansion) (LEP IV)

Waterways

• Rhône – Seine connect with Saar – Rhine – Mosel

## <u>Saarland</u>

## Landesentwicklungsplan (Teilabschnitte Umwelt) (LEP) (2004)

The Saarland shall be connected efficiently to the European economic areas therefore bottlenecks are to be minimized. The primary transport network shall be connected to the surrounding countries of the Saarland (the Greater Region). The internal transport infrastructure shall be enhanced to make the Saarland, together with the residual parts of the Greater Region an attractive development area connected to new European development corridors (Ministerium für Umwelt Saarland 2004, 24).

The motorway and national road connection (A65, B10, A8) between Karlsruhe, Neunkirchen, Saarlouis, Merzig (DE) and Luxembourg (LUX) is to be expanded as well as the motorway connection

between Saarbrücken, Saarouis, Merzig and Luxemburg (A620 and A8). Additionally two primary road connections to France are to be improved between Saarlouis, Überherrn (DE), Creutzwald, St.Avold and Metz (FR) (B269) (ibid., 25, 38).

Futhermore several regional and tertiary roads are to be expanded between Germany and France as well as Luxemburg (ibid., 25f.)(see list below).

The cross-border rail connections between Metz and Saarbrücken belong to the primary rail network. They shall be enhanced and accelerated. Furthermore, Saarbrücken shall be integrated in the TEN-T high speed rail network be improving the connection between Paris (FR), Saarbrücken and Mannheim (DE) (ibid., 40). The accessibility of connecting trains from Saarbrücken (DE) to Metz (FR), Luxembourg (LUX) and Bruxelles (BE) are to be ensured (ibid., 27). A secondary rail connection shall be enhanced between Trier, Perl (DE) and Metz (FR). A tertiary connection between Dillingen, Niederaltdorf (DE) and Bouzonville (FR) is to be maintained and offered more regularly (ibid., 27).

The *Landesentwicklungsplan* (*Teilabschnitt Siedlung*) (*LEP*) (2006) does not refer to cross-border transport or the TEN-T but underlines the importance of cross-border coordination of the settlement development within the Greater Region. The cross-border region shall be linked better internally and the LEP shall be coordinated with the spatial planning of the neighbouring regions (Staatskanzlei Saarland 2006, 968). Also the *Landschaftsprogramm Saarland* (2009) does not refer to cross-border transport development or the TEN-T. However, it promotes environmental cross-border cooperation.

## Koalitionsvertrag für die 15. Legislaturperiode des Landtags des Saarlandes 2012-2017 (2012)

The contract calls for an improvement of a rail track between Frankfurt, Saarbrücken (DE) and Paris (FR). Additionally, the enhancement of public transport to Metz (FR), Luxembourg (LUX) and Rhineland-Palatinatte shall be investigated in cooperation with the residual Greater Region (CDU Landesverband Saar and SPD Landesverband Saar 2012, 55). It is to be considered to establish a structure of the Greater Region on transport issues (ibid., 67)

## Eckpunkte einer Frankreichstrategie für das Saarland (2013)

The strategy promotes the bilateral communication in the Saarland. Also information of public transport providers should be bilateral (Staatskanzlei Saarland 2014, 9). The high speed connection between Paris and Frankfurt via Saarbrücken is to be expanded further together with France and Rhineland-Palatinate (ibid., 15).

The *Operationelles Programm EFRE Saarland 2007-2013 (2014)* and the *Operationelles Programm EFRE Saarland 2014-2020 (2014)* do only rarely refer to transport. They do not refer to cross-border transport or the TEN-T but underline the importance of cross-border cooperation within the Greater Region (Ministerium für Wirtschaft, Arbeit, Energie und Verkehr Saarland 2014a, 148). The programmes shall be coordinated with the ETC programme (Ministerium für Wirtschaft, Arbeit, Energie und Verkehr Saarland 2014b, 121). Also the *Strategie für Innovation und Technologie Saarland* (2015) does not refer to cross-border transport or the TEN-T.

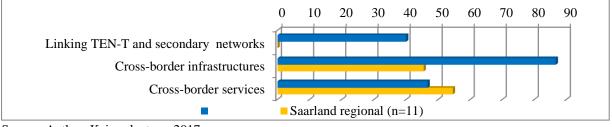
## Haushaltsplan des Saarlandes 2016 und 2017 (2016)

According to the plan the Mosel locks are to be expanded in cooperation with Rhineland-Palatinate and Luxemburg to contribute to a more efficient waterway freight transport (Ministerium für Finanzen und Europa Saarland 2016, 45). The *Saarbahn* shall be established between Lebach, Saarbrücken, Hndweiler and the French border (ibid., 46). The plan finances the cross-border bus line between Saarbrücken (DE) and St. Avold (FR) (ibid., 51).

## Nachhaltigkeitsstrategie für das Saarland (2017)

In the strategy the Saarland is said to benefit from its central location in the Greater Region (Ministerium für Umwelt und Verbraucherschutz Saarland 2017, 50). The expansion of the Saarbahn to France is considered to be very relevant especially for the cross-border commuters which work in the Saarland (ibid., 60).

Figure 174: Contribution of the German regional (Saarland) policies' objectives to EU policy transport related objectives



Source: Author, Kaiserslautern, 2017.

Concrete cross-border transport-related projects defined in the German regional policy documents of the Saarland

Rail:

- Stadtbahn SB Sarreguemines (new service) (VEP 1997)
- Stadtbahn SB Forbach (new service) (VEP 1997)
- Lebach SB Hindweiler FR (Saarbahn new service connection) (HP SL)
- Saarbahn + further to France (prolongation) (NS)
- SB Luxembourg (improvement or instead enhanced bus connection) (VEP 1997)
- Paris (FR), Saarbrücken and Mannheim Frankfurt (enhancement between Kirkel-Homburg) (LEP U)(KV)(FS)
- Trier Perl Metz (new service) (LEP U)
- Dillingen, Niederaltdorf (DE) and Bouzonville (FR) (more regular service) (LEP U)

Road:

- A8 Neunkirchen -.Saarlouis Luxembourg (expansion) (LEP U)
- A620 and A8 SB Saarlouis Merzig Luxembourg (expansion) (LEP U)
- B269 Saarlouis Überherrn Creutzwald St.Avold Metz (improvement) (LEP U)
- B406 Remich Nennig (expansion) (LEP U )
- A31/A13/A8/B41 Thionville St. Wendel Kusel (expansion) (LEP U)
- D654/B407/B51 Thionville Perl Trier (expansion) (LEP U)
- 152/B407 Bad Mondorf Perl Saarburg (expansion) (LEP U)
- A4/N33/B269 Metz Saarlouis Lebach St. Wendel (expansion) (LEP U)
- N3/B41/... Freyming-Merlebach SB Sulzbach Sarreguemines (expansion) (LEP U)
- D65/L156/L152 Bouzonville (FR), Niedaltdorf and Weiskirchen (DE) (expansion) (LEP U)
- D64/L172 Waldwisse (FR) and Siersburg (DE) (expansion) (LEP U)
- D55/L168/L139 Merten (FR), Überherrn, Wadgassen, Riegelsberg (expansion) (LEP U)
- D26A/L165/L269/L128 Carling (FR), Völklingen and Ottweiler (expansion) (LEP U)

Waterways:

• Mosel locks (expansion) SL – LUX (HP SL)

### Bus:

- Boulay Saarlouis (new bus) (VEP 1997)
- Carling Saarlouis (new bus) (VEP 1997)
- SB St Avold (maintenance) (HP SL)

## <u>Rhineland-Palatinate - subregional:</u> Zukunftsstrategie Region Trier 2025 (2008)

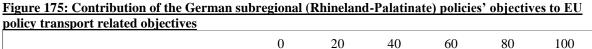
The transport development planning shall be coordinated in the SaarLorLux+ region in terms of transport infrastructure and public services (Planungsgemeinschaft Region Trier 2008, 16, 34). Trier shall be developed to a hub for European transport (ibid., 24). The rail track between Koblenz, Trier (DE) and Luxembourg (LUX) as well as the track between Trier (DE) and Metz (FR) shall be expanded. By this also the high speed train accessibility shall be improved (ibid., 29). A daily cross-border public rail service shall be developed to France from Trier (DE) to Thionville and Metz (FR) (ibid., 30). In this context a cross-border tariff system is to be established for the regional bus and rail lines of the SaarLorLux+ region with Belgian and Luxemburgish neighbours taking into acccout the ccommuter flows. The harmonization of the existing transport systems is to be expanded through cooperation in the Euregio SaarLorLux+. A transport service information system shall be developed across borders. This shall contribute to the cohesion of the cross-border region (ibid., 31). A waterway connection between the Mosel and the Rhône is to be established (ibid., 58).

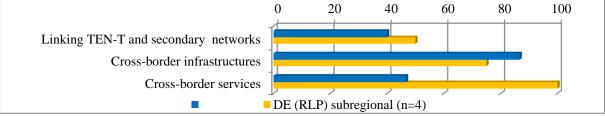
# Regionaler Raumordnungsplan (RROP) Westpfalz (2011)

The rail connection between Mannheim and Paris through Kaiserslautern is to be maintained and expanded (Planungsgemeinschaft Westpfalz 2012, 52). It does neither refer to the TEN-T nor the Greater Region.

# Einheitlicher Regionalplan Rhein-Neckar (2014)

The region is allocated next to important European North-South transport axes whose congestions are to be minimized (Verband Region Rhein-Neckar 2014, 105). The regional transport network shall be integrated further to the Trans-European transport network. Additionally, existing cross-border linkages are to be maintained and improved (ibid., 95). The cross-border road connection between Scheibenhardt (DE) and Lauterbourg (FR) as well as between Landau (DE) and Wissembourg (FR) in the Alsace region shall be expanded (ibid., 97f.). In the cross-border rail high speed network, the POS connection between the French border, Saarbrücken, and Ludwigshafen shall be enhanced to decrease the travel time (ibid., 99). Additionally, the rail connection between Saarland, Landau via Wörth (DE) and Alsace is to be improved (ibid., 113f.). In terms of freight transport, the region can strategically benefit from the trans-European multimodal transport axes which cross the territory (ibid., 116). Additionally, a cooperation with Strasbourg and Lauterbourg (FR) with the German ports of Wörth and Karlsruhe is to be investigated (ibid., 104). The plan does not refer to the Greater Region but to its bordering cross-border regions Oberrhein and PAMINA (ibid., XIV).





Source: Author, Kaiserslautern, 2017.

## <u>Concrete cross-border transport-related projects defined in the German subregional policy documents</u> <u>of Rhineland-Palatinate</u>

Rail:

- Koblenz Trier Luxembourg (expansion) (ZSRT) (RROP T)
- Trier Metz (expansion) (ZSRT)
- Trier Thionville Metz (new daily service) (ZSRT)
- Frankfurt Trier Luxembourg (direct new service development) (RROP T)
- Metz Trier (direct new service development) (RROP T)
- Trier Perl Metz Nancy (new also service on working days) (RROP T)
- Paris SB Kaiserslautern LU Mannheim (expansion) (RROPW)(EHRP)
- Wittlich Trier Wasserbillig (expansion) (RROP T)
- Konz Wasserbillig (expansion) (RROP T)

Road:

- A60 Liège Bitburg Wittlich prolongation to A61 (Rheinböllen) (RROP T)
- L142 (expansion between B407 and LUX)

Waterways:

• Mosel-Rhône (new connection) (ZSRT)

Ports:

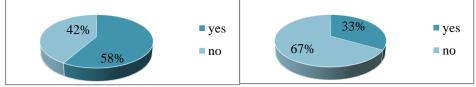
• Trier – Mertert (common management) (RROP T)

Bus:

- Bitburg Irrel Luxembourg (bus maintenance) (RROP T)
- Diekirch Vianden Bitburg (new buses) (RROP T)
- Ettelbrück Gerolstein (new buses) (RROP T)
- Prüm St Vith (new buses) (RROP T)
- Kell Luxembourg (new buses) (RROP T)

## German, Rhineland-Palatinate, Saarland and subregional policy aims - overview

Figure 176: Relation of the German policies to cross-border transport (left) and the TEN-T (right) (n=36)

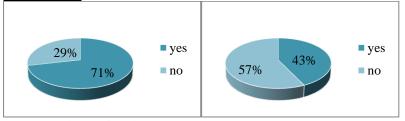


Source: Author, Kaiserslautern, 2017.

## Luxemburg

National level

Figure 177: Relation of the national Luxemburgish policies to cross-border transport (left) and the TEN-T (right) (n=14)



Source: Author, Kaiserslautern, 2017.

## Programme Directeur d'aménagement du territoire (PDAT) (2003)

The PDAT refers to European and cross-border strategies and policy documents like the TEN-T policy, the INTERREG initiative and the Schéma de développement de l'espace SAAR-LOR-LUX + (SDE SLL+) (Conseil de governement luxembourgeois 2003, 171ff.). It defines its own political priorities based on the ESDP's principles (ibid., 142). Additionally, it underlines the importance of secondary transport networks – i.e. regional public transport systems - and their connection to the main TEN-T routes (ibid., 96). Furthermore, it defines priority themes for cross-border cooperation under the INTERREG initiative - among others transport (ibid., 78). Besides that the PDAT defines aims for the SDE SLL+ in the field of transport such as the improvement of the internal accessibility of the Greater Region, the connection to the TEN-T, cross-border infrastructures and the upgrade of existing infrastructures. Furthermore, the environment shall be protected (ibid., 98).

Cross-border transport is said to be very important for Luxemburg because of the many commuters which cross the frontier every day to work in Luxemburg (ibid., 40,158). Therefore the transport policies are to be coordinated across borders and cross-border transport associations could be established (ibid., 91). Additionally, Luxemburgish transport strategies are to be established for flexible (cross-border) spatial boundaries. Furthermore, the PDAT calls for studies to improve the accessibility in the Greater Region and EU wide (ibid., 158)

Public transport shall become more multimodal. Therefore a train-tram is to be developed and expanded. It might even be extended across borders (ibid., 243).

Among others the document also aims at improving rail tracks with direct relevance for cross-border transport (ibid., 121) (see list below). Also cross-border tickets are to be developed (ibid., 250). Park&Ride parking lots are to be established at these intermodal hubs at the border (ibid., 123). In this context a national Park&Ride concept is to be established (ibid., 244).

The PDAT calls for the support of the EU level to minimize the transport flows through Luxemburg as important transit country (ibid., 154).

Rail transport shall be promoted as priviledged freight transport mode in Luxemburg, across borders and EU wide. The Luxemburgish rail network shall be connected properly to international railway lines for both freight and passenger transport. The cross-border cooperation in terms of rail transport shall be strengthened (ibid., 156ff.). Luxemburg shall become an important transport node for the Greater Region. The EU rail infrastructure shall be harmonized technically. Logistical platforms are to be created close to important transport hubs that link regional and international freight transport flows. Furthermore, a transport strategy for the Greater Region is to be established, based on the SDE SLL+ (ibid., 246ff.).

## Cadre de reference stratégique national 2007-2013 (2007)

The growing cross-border transport flows are described as a challenge for the road and railroad transport (40). The internal and external accessibility of the Greater Region is to be improved. In this context the railways shall be used stronger by cross-border commuters and the cross-border (technical) infrastructure as well as common public transport organizations and ticketing systems are to be developed (79).

# The *Programme Opérationnel FEDER 2007-2013 (2007)* as well as the *Plan national d'action pour la mobilité douce (PANMD) (2008)* do not refer to cross-border transport or the TEN-T.

## Plan national pour un développement durable (PNDD) Luxembourg (2010)

The document addresses the growing number of cross-border commuters to Luxemburg and the related size of passenger traffic which relies mainly on individual transport. As this is not sustainable transport

shall be shifted to environmental friendly public transport infrastructures (15, 45). The transport development is to be coordinated within the Greater Region (16) which includes informing, consulting, reconciliating and even a common planning between different levels of the bordering countries. Furthermore the transport infrastructures, service itineraries and information shall be coordinated. It is aimed at developing a common transportation focussedity (40). Bilateral cross-border mobility action plans shall be developed with the neighbouring countries (55). Additionally, the rail and road transport network of Luxemburg shall be connected with its neighbouring regions (97).

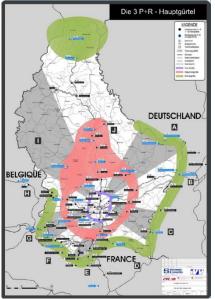
## Paquet Climat (2011)

International public passenger and freight transport connections are to be taken into account when reducing climate change (Partenariat pour l' environnement et le climat 2011, 42). Cross-border public transport shall be made more attractive to reduce the individual motorized transport. A mobility centre should be established for the Greater Region to promote the existing cross-border lines and develop a common information and ticketing platform (ibid., 43f.).

## Regionales und grenzübergreifendes P+R-Konzept (2012)

This Park&Ride concept was developed in 2012 but is in revision at the moment because new P&R infrastructures have been added since then (Interview Juttel 2016).

P&R infrastructures are to be established at the border of the neighbouring countries of Luxemburg to reduce the motorized individual transport of cross-border commuters and relieve the national roads as early as possible (Schroeder & Associés 2012, 18). The P&R infrastructures are established at the most important corridors for the commuter flows at the border (ibid., 28)(see **Image 50**).



### Image 50: P&R infrastructures of Luxemburg (2012)

Source: ibid., 33.

The shift to public transport shall be facilitated for the car drivers (ibid., 20) directly at the border. The offer shall address mainly commuters that do not have a good offer of public transport at their home (ibid., 28). Some existing infrastructures at the borders (e.g. Mesenich, Wasserbillig (DE), Frisange and Belval (FR)) are to be expanded because being overburdened (ibid., 32).

## Plan Sectoriel Transport (version 2013)

The PST foresees the expansion of a rail track between Rodange and the French border (Ministère du Développement durable et des Infrastructures de Luxembourg 2013a, 30). Additionally, the inner Luxemburgian high speed rail track between Luxembourg and Bettembourg shall be expanded to

improve the connections to France and the Trans-European high speed rail networks (ibid., 2). The logistical platform of Bettembourg is to be expanded as it is an important hub being connected to the North Sea ports and Italy. As it is expected to increase the freight transport on the road also the latter is to be expanded also in the vicinity of the French border new interfaces are to be established. Therewith the rail connections to the neighbouring countries are to be improved (ibid., 34). Another internal rail transport infrastructure expansion project shall amend the connection between the Wallonie and Luxembourg. New direct rail connections between Athus and Longwy and Luxembourg are to be established to react on the grown numbers of cross-border commuters. Also the freight transport is to be improved across borders (ibid., 36). The TEN-T priority project passenger connection between Strasbourg, Luxembourg and Bruxelles (EuroCapRail) is to be improved by improving a Luxemburg section of the connection. The freight transport is to be improved as well but on a second track (ibid., 40). Another cross-border project is the doubling of the rail track between Rodange (LUX) and the French border on the way to Longwy (FR). Also a P&R parking is to be established in Rodange (ibid., 48). When improving the public transport in the Southern region of Luxemburg, also the French neighbouring municipalities of Esch shall benefit (ibid., 58). Among others a bus track is to be established on the motorway to France (ibid., 60). The transport development of the Southern region is to be coordinated with the neighbouring regions across national borders in a much stronger degree than before. Synergies are to be developed and projects from the other side of the border are to be integrated coherently. Cross-border transport is to be improved (ibid., 118).

The road between Esch and Audun-le-Tiche (FR) is to be improved under French steering to better connect the French municipalities to Luxemburg (ibid., 70). Furthermore, the 'Nordstad' shall be linked better to Trier, Bitburg the Saarland (DE), Lorraine (FR), and the province of Luxembourg, St. Vith and Bastogne (BE) through the expansion of a road (ibid., 102). Additionally, bypasses are to be established around municipalities to minimize the negative effects of commuters e.g. from Belgium in these villages (ibid., 104ff.).

## Accord de partenariat Luxembourg (2014)

The partnership agreement of Luxemburg mentions that Luxemburg is crossed by an important European North-South road axis and the transit as well as cross-border transport contribute to high  $CO_2$  emissions. Therefore the number of daily transport flows across borders is to be reduced by promoting public transport and multimodality (Gouvernement du Grand-Duché de Luxembourg and European Commission 2014, 10).

Because of its location between three different Member States and the interlinkages across borders Luxemburg has to consider the neighbouring countries in their spatial development. A cross-border polycentric metropolitain region shall be established within the Greater Region. In this context the cross-border transport network shall be improved based on a better coordination. Additionally, the priority transport projects list is mentioned which shall connect the Greater Region to other large European centres and improve the internal accessibility within the border region (ibid., 20f.).

Park and Ride infrastructures are to be established at the border to shift them to public transport means (ibid., 32).

The ETC-cross-border cooperation programme Greater Region shall contribute to the reduction of  $CO_2$  emissions, and a better mobility within the Greater Region which is strongly burdened by the daily commuters. Public transport shall be expanded and the transport development of the different countries shall be coordinated better like in the *Schéma de mobilité transfrontalier* (SMOT) (ibid., 33f.).

Also the ETC transnational cooperation programme North West Europe is considered to be of high importance for Luxemburg. For instance in the area of renewable energies and transport it is to be cooperated with the other countries to learn from them and exchange experiences (34f.).

The ERDF has defined one of its priorities in the field of minimization of  $CO_2$  emissions which shall be reached among others by the promotion of public transport and "soft mobility". Additionally, the different transport modes shall be coordinated better by innovative systems and urban mobility shall become more sustainable (ibid., 51). However, the objective 7, related to transport, was not chosen for any of the ESIF funds (ibid., 60)(60).

# Programme Operationnel FEDER 2014-2020 Luxembourg – Objective Investissement pour la croissance de l'emploi (2014)

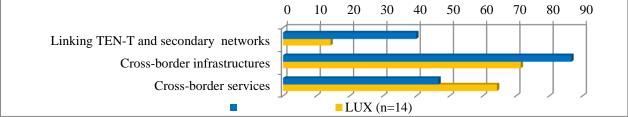
The fourth thematic objective of the ERDF foresees the reduction of  $CO_2$  emissions in the transport sector among others (Ministère de l'Èconomie de Luxembourg 2014, 13). In this field cooperation with other Member States is envisaged. Innovative measures shall improve the management of transport systems (ibid., 15). It does not refer to the TEN-T.

The policy *Pacte Climat (2015)* does not relate to cross-border transport or the TEN-T. Instead it focuses on the national territory.

## Luxemburgish Railway Development Plan (2016)

The plan refers to the TEN-T Policy and the North Sea Mediterrean Corridor and describes projects which applied or will apply for EU funding in the future. The CEF funds are regulated strictly so that the projects have to be implemented in the predefined time frame. The plan is not available for the public but an internal working document. It is regularly reviewed (Interview Bissen 2016).

## Figure 178: Contribution of the Luxemburgish national policies' aims to EU policy transport related aims



Source: Author, Kaiserslautern, 2017.

# <u>Concrete cross-border transport-related projects defined in the Luxembourgish national policy</u> <u>documents</u>

Rail

- connection between Luxembourg city and Bettembourg as a connection to the French TGV Est line (PDAT)
- the rail infrastructure between Dudelange (LUX) and the French village Volmerange. PDAT)
- the rail connection between Strasbourg, Luxembourg and Bruxelles (249) PDAT) (IVL) (MoDu)(PST)
- the rail connection to the French TGV Nord (249) PDAT)
- the rail connections to Germany (Saarbrücken, Trier, Mannheim and Frankfurt (Main)) (PDAT)(IVL)
- the rail connections to France (e.g. Audun-le-Tiche, Villerupt) (249) etc. PDAT)
- the rail connections to Wallonia (e.g. Liège) PDAT)
- Rail track between Luxembourg and Trier (expansion) (MoDu)
- Rail track between Rodange and France (expansion) (MoDu)(PST)
- Expansion rail track Rodange Longwy (PST)
- Direct service connection Longwy Luxembourg Thionville (Maintenance) (MoDu)
- Luxembourg Bettembourg (modernization+expansion) FR (PST)
- Athus-Longwy-Luxembourg (new direct service connections) (PST)

## P&R

- Mesenich, Wasserbillig (DE), Frisange and Belval (FR)) are to be expanded (P&R2012)
- Rodange (new parking)

### Road

- Bus lane A3/31 France Luxembourg (MoDu)(PST)
- A4 prolongation to France (MoDu) (Maintenance)
- Esch Audun le Tiche (improvement) (PST)
- Nordstad Trier Bitburg (PST)
- Nordstad Lorraine (PST)
- Nordstad Bastogne St Vith (PST)

### Bus

- 197 Ottange (FR) Rumelange Luxembourg (maintenance) (MoDu)
- 321 Villerupt Esch Luxembourg (maintenance) (MoDu)
- 322 Redange (FR) Esch-sur-Alzette (maintenance) (MoDu)
- 330 Mont Saint-Martin (FR) Athus (BE) Pétange (maintenance) (MoDu)
- 398 Saint-Charles (FR) Longwy Rodange (maintenance) (MoDu)
- 399 Saulnes (FR) Longwy Rodange (maintenance) (MoDu)
- Esch + French municipalities (improvement) (PST)

## Cross-border cooperation policy documents

### Cross-border regional level

## Empfehlungen der AG Verkehr und Kommunikation WSAGR (2000)

As already mentioned earlier the working group 'Transport' of the WSAGR regularly develops recommendations for the Summit of the Greater Region in the field of transport. In this policy document the WSAGR advices to support research and development in vehicules that are applicable on the different national rail systems of the Greater Region in order to enhance cross-border passenger transport (AG Verkehr und Kommunikation des Wirtschafts- und Sozialausschusses der Großregion 2000, 1).

## Schéma de developpement de l'espace SAARLORLUX+ (2002)

This development concept of the Saar-Lor-Lux Space was developped by the former regional commission of the Greater Region and focussed on the spatial development of the cooperation space. However, it has never been officially adopted and implemented but remained a draft (Interview Ball 2016).

According to the document the internal and external transport accessibility shall be enhanced (Groupement de Consultants 2002, 165). Because of the strong transport flows to Luxemburg the crossborder public transport shall be improved (ibid., 19). Additionally, integrated cross-border transport development plans shall be developed (ibid., 31). According to the concept the transport axes and corridors of the cross-border region were not sufficiently linked to the international metropoles (ibid., 76). Thus the region should develop a good level of transport accessibility to ensure that there will be only transit transport (ibid., 76) (see **Image 51**).

The European high speed rail network shall be linked to the regional and local networks (ibid., 132). The latter should be efficiently linked to the TEN-T (ibid., 165). Especially a TGV rail connection between Paris, Lorraine, Strasbourg (FR), Luxembourg (LUX) and Saarbrücken, Kaiserslautern, Mannheim and Frankfurt (DE) shall be developed. Additionally, the connection between London (UK), Bruxelles (BE), Luxembourg (LUX), Metz and Strasbourg (FR) shall be enhanced (ibid., 166). Also Luxembourg (LUX) and Liège (BE), as well as Luxembourg (LUX) and Saarbrücken (DE) and Saarbrücken – Strasbourg (FR) shall be connected with a fast rail connection (ibid., 167). More frequent transport connections are to be established between Metz, Thionville (FR) and Luxembourg (LUX);

Kaiserslautern, Saarbrücken (DE), Forbach and Metz (FR) and between Trier (DE) and Luxembourg. Additionally the Belgian cities Arlon, Athus and Virton shall be connected better with Luxembourg (LUX) (ibid., 179).

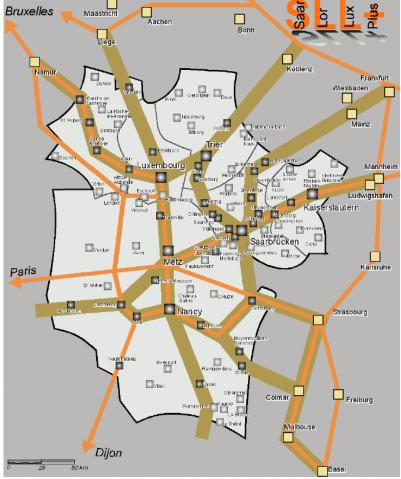


Image 51: Spatial vision on the main transport development axes of the Saar-Lor-Lux+ Space

Large planning projects with relevance for the cross-border region should be coordinated across borders. The working groups of the GR should meet frequently and conferences should be developed (Groupement de Consultants 2002, 87). A polycentric development shall be supported by an integrated and multimodal transport system (ibid., 89). Cross-border agglomerations need to improve the offer of public transport services (ibid., 98). Cross-border public transport concepts and pilot projects shall be developed across borders (ibid., 130). The information on the cross-border transport offer shall be improved. Besides that the tariff system should be harmonized (ibid., 139). The travel times shall be minimized in the cross-border region (ibid., 166). A cross-border transport ticket is to be developed which combines park tickets and the public transport transfer (ibid., 168). A cross-border transport agency shall be established which will facilitate the cooperation between the different domestic transport actors including the providers of the different modes (ibid., 169). New rail vehicles should be developed which is capable to be used on the French, German and Luxemburgish rail roads (ibid., 169).

Concerning the cross-border road network in the cross-border region the connection between St. Avold (FR) and Saarlouis (DE) shall be enhanced to improve the connection between Strasbourg (FR) and Luxembourg (LUX). The roads between Bruxelles, Namur, Arlon (BE) and Luxembourg (LUX) as well as between Liège, Arlon (BE) and Luxembourg are to be renovated (ibid., 171). Furthremore, the development of a French motorway A32 is envisaged to relieve the A31 (ibid., 170).

Source: Staatskanzlei Saarland 2003, 190.

It is proposed to establish a cross-border freight centre to complement the different existing centres and foster the cooperation between the transport providers (ibid., 172).

The agglomeration of Saarbrücken (DE) and Moselle-Est (FR) should integrate cooperation in the field of transport into their urban strategy (ibid., 122). In the Pôle Européen de Développement (PED) the public transport shall be enhanced to improve the transportation of the cross-border commuters to Luxemburg. Furthermore a Eurocorridor for freight transport shall be built (ibid., 122).

## Vision d'avenir 2020 (2003)

The future vision 2020 was developed for the Summit of the Greater Region. It defines strategies and actions for the future development of the Greater Region v (Staatskanzlei Saarland 2003, I).

According to the policy document an action programme is to be established for the Greater Region to define and coordinate the transport network development (ibid., 43f.). The North-South high speed rail axis between Great Brittain, Bruxelles (BE), Luxembourg (LUX) and Strasbourg (FR) as well as the Mediterranean Sea shall be developed as it was a potential part of the TEN-T as defined by the European Commission (ibid., 43f.). Furthermore, the East-West transport rail connection between Paris, Metz, Nancy (FR), Saarbrücken and Frankfurt (DE) is to be finalized as soon as possible to increase the accessibility of Eastern Europe. Besides that fast interregional transport connections are to be established between Trier, Koblenz (DE) and Luxembourg (LUX). The cities of the Greater Region are to be connected efficiently to the TEN-T (ibid., 44). The Moselle-Saône channel is to be established to link the region to the North and Mediterranean Sea. The entities of the Greater Region should commonly lobby the implementation (ibid., 44). Cross-border public transport service connections are considered to be too rare and therefore should be developed as a priority. The national rail service providers should coordinate their offer within the Greater Region (ibid., 43, 45). A cross-border agency should be established.which shall harmonize the legal standards of the countries for cross-border public transport and develop a transport plan. This plan should define tariffs, network connections and common transport objectives (ibid., 45f.)

An integrated freight centre shall be established in the Greater Region which is also connected to the waterways. Additionally, a European transport logistics academy is to be founded (ibid., 46).

## Resolution Mobilität in der Großregion WSAGR (2004)

The resolution 'Mobility in the Greater Region' was developed by the WSAGR as an advice for the Summit of the Greater Region. It proposes to establish a road connection between St. Vith and Bastogne (BE) which shall remove a bottleneck on the connection between Wallonia and Luxemburg (Wirtschafts- und Sozialausschuss der Großregion (WSAGR) 2004, 1). Furthermore, a Trier Northern and Western track shall be established to minimize congestion. The latter includes the construction of a bridge in Konz (DE) and shall improve the connection to Luxemburg (ibid., 1f.). The B269 between Saarlouis (DE) and St. Avold (FR) shall be enhanced to remove another bottleneck and connect the important European roads (ibid., 1f.). Additionally, a road shall be constructed between Micheville (FR) and Belval (LUX) to improve the connection between the two countries (ibid., 2).

Concerning the rail transport two projects are proposed. First, the East-West-Corridor between Paris, Strasbourg, Metz (FR), Saarbrücken (DE) and Luxembourg (LUX). The section between Luxembourg, Trier and Koblenz needs to be enhanced to increase the speed. Second, a North-South corridor between Bruxelles, Luxembourg, Metz and Strasbourg shall be implemented (ibid., 2).

A channel between the rivers Mosel, Saône und Rhône shall be established to link the French, Luxemburgish and German waterways (ibid., 3).

The public transport services across-borders should be expanded. Among others, the rail connection between Virton und Athus (BE) shall be reopened and connected with Arlon (BE) Rodange and Luxembourg (LUX) to react on the strong cross-border commuter flows (ibid., 3). Furthermore, a direct connection between Trier and Metz shall be developed (ibid., 3). The Saarbahn which starts in Saarbrücken shall be prolonged to Forbach (FR). Close to the border, the stations should be equipped with park and ride infrastructures and attractive ticket combinations (ibid., 4).In addition, studies are to be conducted on the feasibility of the connection between Bouzonville (FR) and Dillingen (DE) (ibid., 4). A better rail connection between Saarbrücken and Trier is to be established or the bus connection is to be offered more times a day (ibid., 4). The timetables and tariffs for cross-border connections shall be coordinated better and become more attractive. It is proposed to develop a common tariff system. International ticket offers should be developed in a first step. The transport providers should cooperate across borders (ibid., 4f.).

## Gemeinsame Erklärung 10. Gipfel der Großregion (2008)

This policy document was developed in a meeting of the political representatives of the Summit of the Greater Region in 2008 and relates to the region's transport development among others. The public transport across borders needs to be enhanced and coordinated to become more attractive and promote the mobility across the border. Furthermore, the development of a common agency for public transport in the Greater Region is to be envisaged. Therefore a common transport conference shall take place (Gipfel der Großregion 2008, 3). For the development of **a polycentric metropolitain cross-border region** (PMCBR) which is to be established in the long-term perspective, also the transport infrastructures between the larger cities of the region are decisive and to be involved in an integrated planning approach (ibid., 10).

Chlench and Beck acknowledges the relevance of the decision to establish a Polycentric Metropolitan Cross-border Region in the Greater Region for a stronger focus on the cross-border regional level to improve the cross-border transport. Chlench expects that this decision might lead to the application of some EU transport policy aims (Interview Chlench 2016; Interview Beck 2016).

## **Metroborder Final Report (2010)**

The report was developed as output of an ESPON study on cross-border polycentric metropolitain regions. One of the case studies was the Greater Region. The report proposes to emhance the transport infrastructure and foster cross-border commuters to contribute to the establishment of a polycentric cross-border metropolitain region. Concrete actions should be implemented to make the cooperation more visible. Besides that a mobility concept shall be established for the Greater Region to reduce existing bottlenecks and group existing bilateral agreements under one roof (Université du Luxembourg 2010, 69).

## Gemeinsame Erklärung 12. Gipfel der Großregion (2011)

Another common declaration was developed by the Summit of the Greater Region in 2011 which refers to cross-border transport. A multimodal information platform on the public transport offer is to be established for the Greater Region (Gipfel der Großregion 2011, 6) thereby the cross-border mobility shall be simplified (ibid., 43). More transport conferences –also in the field of public transport - are to be offered by the Greater Region (ibid., 9). A feasibility study shall be conducted on the establishment of a common marketing strategy as well as an electrontic information and ticketing system on cross-border public transport in the Greater Region. The aim is to minimize cross-border mobility barriers. This study shall be funded by INTERREG (ibid., 22). Furthermore, the mobility of the students of the University of the Greater Region shall be improved between the different university seats and a special

tariff for students shall be created (ibid., 23, 25). Besides the improvements of the internal accessibility also the external accessibility shall be enhanced by linking its transport infrastructure to the networks of other European metropolitain regions via rail, waterways and an expansion of the Eurocorridors (ibid., 43).

# Besonders vorrangige Verkehrsprojekte im Hinblick auf die metropolitane Entwicklung der Großregion (2014)

This document declares four prior projects from the list of priority projects that was developed one year ealier which should be implemented in a short term perspective. A cross-border transport project is the motorway A31 expansion between Luxembourg (LUX) and Nancy (FR). Two rail projects have another cross-border dimension: The Eurocaprail project and the East-West rail connection between Baudrecourt and Mannheim. The aims were already described above (Koordinierungsausschuss für Raumentwicklung der Großregion, Arbeitsgruppe Verkehr des Gipfels der Großregion, and Arbeitsgruppe Verkehr des WSAGR 2014, 2f.).

Some participants of the group which declared the prior priority project proposed to establish a linking point for two TEN-T Corridors in Vandières (FR) to connect the network of the Greater Region to the TEN-T and improve the internal connectivity (ibid., 3f.).

Also public transport priorities have been declared. A public bus and train platform is to be established which shall facilitate the cooperation between the transport providers of the Greater Region. A common cross-border transport offer and modeling are to be developed. Furthermore, technical vehicle questions shall be discussed. The Mobiregio information material which was developed by an EU funded project for the establishment of a mobility centre of the Greater Region shall be made use of. Cross-border tickets shall be expanded for cross-border tourism and commuter purposes. Additionally, two studies shall be conducted on the cross-border rail offer between Metz and Trier as well as further multimodal cross-border public transport projects in the Greater Region (ibid., 4).

# Abschlussbericht Wirtschafts- und Sozialausschuss der Großregion (WSAGR) 14. Gipfel der Großregion 2013/2014 (2014)

The report gives an overview of the work of the WSAGR during the year 2013/2014 and defines future needs – also in the field of transport. The mobility centre of the Greater Region should be expanded to support the development of cross-border transport services, the information system and cross-border tariffs (Wirtschafts - und Sozialausschuss der Großregion 2014, 10). Cross-border transport shall be made more attractive (ibid., 80). A platform of cooperation for the bus and rail transport providers of the Greater Region is to be established to create a common transport model (ibid., 84).

Besides that the projects which have been defined as priority projects and prior priority projects in the common publications with the KARE are presented (ibid., 10, 85).

## Ergebnisse der IPR-Mobilitätskonferenz (2014)

The IPR organized a transport conference on the mobility in the Greater Region. This policy documents summarizes the conference results. The Greater Region shall be connected efficiently to the European rail network. The connections between Trier and Luxembourg, Metz and Luxembourg, Bruxelles and Luxembourg as well as Luxembourg and Liège shall be expanded and accelerated (Interregionaler Parlamentarier-Rat 2014a, 2). A multimodal cross-border job ticket is to be developed with cheap prices which make it attractive to use public transport offers already before crossing the border. In this context park and ride infrastructure should be established at the borders. Additionally, car sharing and pooling is to be promoted across borders (ibid., 3).

The information on public cross-border transport service connections of the Greater Region shall be enhanced (ibid., 3). The biggest centres of the cross-border region should be connected via direct transport lines such as the development of a rail connection between Metz and Trier; Saarbrücken and Luxembourg and among all four cities. The feasibility of these connections is to be studied (ibid., 4).

ETC funds should be used to develop common technical and safety standards to avoid the necessity of changing trains at the border (ibid.). It is also recommended to establish a platform of cooperation between the bus and rail providers of the Greater Region to coordinate common tickets and prices and to develop common offers among others (ibid., 4).

## Gemeinsame Erklärung 15. Gipfel der Großregion (2016)

Also the common declaration of the 15<sup>th</sup> Summit of the Greater Region defines transport related aims. Public transport across borders is to be coordinated better. Additionally, the transport infrastructure is to be connected across borders. The cooperation and communication between the transport providers of the Greater Region is to be fostered further so that they develop common tariffs. Transport is to be shifted for the individual car to alternative transport offers (Gipfel der Großregion 2016, 13f.). The list of the priority projects is to be implemented into practice to improve the internal and external accessibility of the Greater Region. The spatial development concept of the Greater Region shall be established further. Transport mobility will be one of the thematic fields of the concept (ibid., 14f.). A regular exchange on sustainable mobility is to be established with all relevant actors of the Greater Region to coordinate a common support of this field (ibid., 15). The cooperation with the KARE and the transport working group of the WSAGR shall be maintained to contribute to the implementation of the Eurocaprail project between Bruxelles, Luxembourg and Strasbourg and a higher attractiveness of the rail connection between Baudrecourt and Mannheim (ibid., 15f.). Under the next presidency crossborder cooperation in the field of public transport shall be increased and the Mobiregio communication platform shall be made us of (ibid., 42).

## Programm der luxemburgischen Ratspräsidentschaft (2017)

In 2017 the Summit of the Greater Region is chaired by Luxemburg. In this context a working programme was developed which relates to the transport development among others. A spatial development concept of the Greater Region shall be developed until 2018. The funding of European Territorial Cooperation shall be used to support cross-border projects in the field of mobility. Alternative transport modes like e-mobility, car sharing and car pooling are to be fostered in cross-border transport. The common information about the public transport offers across borders is to be enhanced by further developing the Mobiregio platform. Furthermore, it shall be cooperated to increase the safety in road transport (Luxemburger Präsidentschaft des Gipfels der Großregion 2017, 5). European integration is to be further supported by cooperating across borders (ibid., 7)

## Arbeitsbericht WSAGR 2015/16 (2017)

The working report of the WSAGR for the year 2015/16 relates to transport as well. It proposes that the Summit of the Greater Region develops a Masterplan on transport infrastructures which defines development priorities. It could be based on the existing list of priority projects that was developed earlier. This plan is supposed to facilitate the funding decisions of the European Investment Bank (EIB). In this context a special fund for the Greater Region could be created by the EIB (Wirtschafts - und Sozialausschuss der Großregion 2016, 14).

The transport in the Greater Region shall become sustainable. The main urban centres of the Greater Region are to be connected efficiently by public transport. This development is to be reached by a stronger cross-border cooperation (ibid., 21).

It is proposed to establish a monitoring platform on the passenger mobility within the Greater Region.. In this context it is recommended to regularly analyse statistical cross-border passenger flows and the occupancy rate and interoperability of the public transport offer. Additionally, the GIS data on transport mobility that is available in the different subregions of the Greater Region is to be merged and potentially added into the existing GIS-GR geoportal.On this data basis common cross-border transport improvement plans are to be derived in order to adapt the existing offer (ibid., 22f.).

Besides that it is recommended to make all this data available to the public. Therewith it is hoped to minimize existing congestions and make commuting more efficient (ibid., 23).

Furthermore, a task force on entrepreneurial mobility management is to be created in the project Mobiregio to exchange on this topic and create synergies with a focus of cross-border commuters (ibid., 23).

The feasibility of a cross-border tariff system of the Greater Region is to be analysed. It is proposed to increase the validity of national tickets to the first place behind the border and the usability of cross-border tickets in different transport modes. Additionally, the job ticket offer should be harmonized in the different countries (ibid., 23).

The document defines the following prioritized transport infrastructure projects (ibid., 24):

- EuroCap-Rail: improvement of the connection betweeen Bruxelles and Luxembourg
- POS Nord: expansion of the high speed railway connection between Baudrecourt and Mannheim via Saarbrücken and Kaiserslautern to improve the external accessibility of the Greater Region
- Motorway A31 between Nancy (FR) and Luxembourg (LUX): expansion to reduce the congestions
- Inland waterway Mosel: expansion of the Mosel locks for freight transport

Furthermore, the cross-border bicyle network is to be expanded, the way marking is to be improved and bicycle renting offices should be available on both sides of the border to encourage the usage of cross-border commuting with bicycles (ibid., 24).

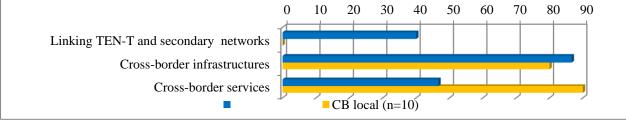
The parking space management is proposed to be coordinated across borders (ibid., 25).

Additionally, the report recommends to increase the exchange of best practices in the field of transport, especially CO<sub>2</sub> reduction (ibid., 25).

Cross-border transport is to be shifted from individual cars to public and alternative transport means. Therefore the information on multimodal cross-border transport connections shall be improved to make it more attractive (ibid., 25). Furthermore, it is proposed to foster a multimodal Eurocorridor in the Greater Region (ibid., 98).

Because of the strong impact of the high numbers of cross-border commuters it is proposed to create and implement comprehensive planning strategies to steer the spatial development of the Greater Region (ibid., 29). The WSAGR proposes to develop a SMOT for the whole Greater Region (ibid., 32).

Figure 179: Contribution of the cross-border regional policies' aims to EU policy transport related aims



Source: Author, Kaiserslautern, 2017.

Concrete cross-border transport-related	projects defined in the	cross-border regional policy
<u>documents</u>		

#### Rail

- Paris Strasbourg Luxembourg SB KL MA Frankfurt (further development of the track) (SDL)
- Paris Metz Nancy SB Frankfurt (finalization of the track) (VA)
- Paris Strasbourg SB Luxembourg (RMGW)
- Baudrecourt SB KL Mannheim (track improvement) (VVP) (BVVP) (AB WSAGR) (GE Gipfel) (AB WSAGR (2017))
- Bruxelles Luxembourg Metz Strasbourg (track enhancement) (SDL)(VA) (RMGW)(VVP) (BVVP) (AB WSAGR) (EIPRM) (GE Gipfel) (AB WSAGR (2017))
- Luxembourg Liège (new fast rail connection+ acceleration) (SDL) (EIPRM)
- Luxembourg SB (new fast rail connection) (SDL) (EIPRM)
- Metz Thionville Luxembourg (more frequent connections) (SDL) (EIPRM)
- KL SB Forbach Metz (more frequent connections) (SDL)
- Trier Luxembourg (more frequent connections) (SDL) (EIPRM)
- (Trier )– Ehrang -Igel Igel West (Luxembourg) (reactivation (Ehrang-Igel) + modernization of track) (VVP) (AB WSAGR)
- Trier Metz (new direct connection+ more connections) (RMGW) (VVP)(AB WSAGR) (EIPRM)
- Koblenz Trier Luxembourg (better infrastructure) (RMGW)
- Luxembourg Rodange Arlon Athus Virton Luxembourg (better connection, reopening Athus Virton) (SDL) (RMGW)
- Saarbahn SB- prolong to Forbach (RMGW)
- Study:Völklingen SB Forbach Bening St. Avold Metz Luxembourg Trier (new commuter train, auch andere Reihenfolge) (VVP) (AB WSAGR)
- Studies: Luxembourg Trier (City tram) (RMGW)
- Studies: Bouzonville Dillingen (reactivation) (RMGW)
- Study: Metz Trier (improvement of the service offer) (BVVP)

Road

- (Strasbourg -) St. Avold Saarlouis (improvement) (Luxembourg) (SDL)
- Bruxelles Namur Arlong Luxembourg (renovation) (SDL)
- A32 (France) (new development) (SDL)
- A31 Luxembourg Nancy (enhancement) (VVP) (BVVP) ) (AB WSAGR) (AB WSAGR (2017))
- A 8 (DE) A13 (LUX) (expansion) (VVP) ) (AB WSAGR)
- A13 E411(BE) (new connection track) (VVP) ) (AB WSAGR)
- A28 (BE) A30 (FR) (new link) (VVP) ) (AB WSAGR)
- St. Vith Bastogne (Luxembourg) (new road)(RMGW)
- Trier Northern + Western track Konz Luxembourg (new/revitalization track) (RMGW)
- B269 Saarlouis St. Avold (improvement) (RMGW)
- Micheville Belval (new road) (RMGW)

Waterways

- Mosel Saône Rhône (new channel) (RMGW) (VVP) ) (AB WSAGR)
- New locks Mosel (VVP) ) (AB WSAGR) (AB WSAGR (2017))

### Bus

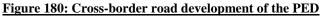
• Luxembourg – SB (improvement of connection) (VVP)

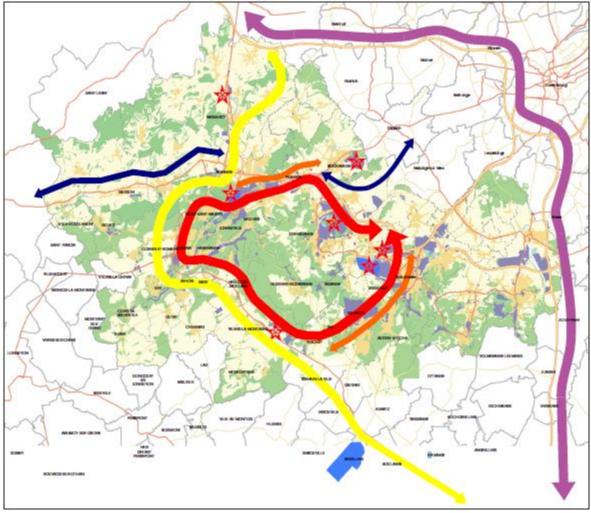
## Cross-border local level

## Schéma de developpement Agglo PED: Thème 3: Transports (2003)

Because the cooperation charta of the PED called for an improvement of the cross-border transport accessibility, transport became part of the development concept of the cross-border region which includes a description of the status quo and recommendations (Lamour, Bousch, and collectif PED 2003,

3). Cross-border transport shall be enhanced by establishing or adapting infrastructures and a coordination of transport services (ibid., 3). A link between the A28, E411and A30 shall be constructed (see yellow line **Figure 180**) to relieve the earlier national roads and accelerate the freight transport flows (ibid., 28).





Axe autoroutier actuel pour le trafic international

🔆 Pôles d'activité majeurs actuels et à venir

#### Projets soutenus par l'Association Transfrontalière

- 🖕 Bouclage autoroutier E411/A28/A30 pour les flux internationaux
- Zukunftsring A30/Collectrice Sud/A4 pour les flux régionaux et transfrontaliers
- Portions du ring restant à programmer en 2 x 2 voies (Avenue de l'Europe Jonction A4/A30)
- Contournante de Bascharage et sécurisation de la N88 belge

L'Association Transfrontalière soutient également l'aménagement d'une station service le long de l'autoroute belge A28 en territoire luxembourgeois

#### Source : ibid., 29.

Additionally, the French A30 and the Luxemburgish A4 shall be connected by a ring road (see red line on **Figure 180**) passing by Esch/Belval. Furthermore, a congested road (Avenue de L'Europe) shall be expanded to a second track to be reserved for cross-border busses. Additionally, a bus line should connect the ring road (ibid., 30). Nidderkäerjeng shall be relieved from the strong transit transport. Therefore a bypass is to be constructed. Additionally, the Belgian N88 shall be made safer and the multimodal public transport offer is to be increased (ibid., 35).

To make the public rail transport more attractive and minimize the motorized individual transport more stops on French and Belgian territory shall be established or reactivated. More rail connections between Rodange (LUX) and Longwy (FR) as well as Athus (BE) and between Rodange, Differdange and Esch (LUX) shall be created. The connections between Péiteng and Nidderkäerjeng (LUX), however, shall be reduced. Furthermore, freight transport shall be shifted to the rail (ibid., 32).

The transport providers of the three countries should cooperate more and coordinate their multimodal transport offer. Furthermore, the ticket prices should be harmonized (ibid., 32).

If feasible a transport plan for the employees should be established to promote together with the employer the usage of alternatives to the individual car on the trip to work (ibid., 33).

Cross-border bicycle roads are to be established to minimize the car usage (ibid., 33). The information on cross-border transport shall be improved by founding a platform. Among others, car pooling could be organized there (ibid., 34). To be able to adapt the transport infrastructure and services on the needs of the public, interviews and public debates should be conducted (ibid., 34)

## Schéma stratégique de la Mobilité Transfrontalière Lorraine - Luxembourg (2009)

The SMOT between Lorraine and Luxemburg is a cross-border mobility concept which contains concrete actions to be implemented in different time horizons on transport infrastructure, services and the coordination of tariffs and information to enhance the cross-border mobility. The share of public transport shall be increased (Ministère des Transports de Luxembourg et al. 2009, 28f.).

The concept aims at improving the cross-border mobility and increasing the shift of cross-border commuters from the individual car to alternative modes of transport or shared solutions. Additionally, the public transport organisation shall be enhanced and coordinated between different modes (ibid., 5ff.). More connections are to be offered in rail and bus transport across the border and the infrastructure is to be expanded. Furthermore, the information on multimodal public transport offers across the border shall be improved and coordinated. Additionally, cross-border tariffs are to be developed and the existing ticketing systems are to become interoperable (ibid., 11, 17, 25). In this context a multi-modal mobility centre shall be established (ibid., 25).

New rail vehicles with a higher capacity are to be bought. Additionally, a new rail connection between Longwy (FR), Belval (LUX) and Thionville (FR) shall be developed. Furthermore, the rail track between Luxembourg and Pétange (LUX) shall be expanded (ibid., 15). Besides that, the capacity of the train from Thionville (FR) to the Luxemburgish border is to be enlarged by introducing new signaling systems and the rail track between Rodange (LUX) and the French border is to be expanded to a second track (ibid., 19). Besides further investments in the two regional transport networks, the capacity of the rail connection between Bettembourg (LUX), Thionville, Metz and Nancy shall be increased (ibid., 20).

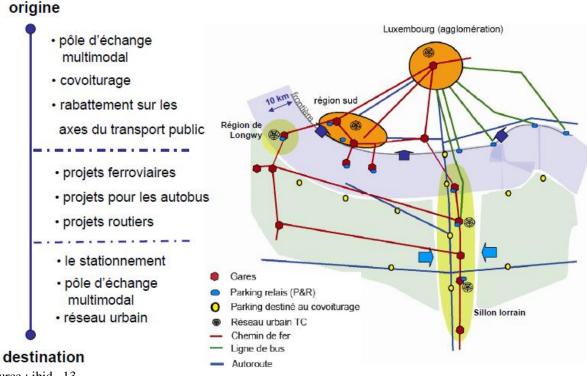
Furthermore, a new train station with a park and ride offer is to be established in Esch-sur-Alzette (LUX) (17). A platform for car pooling across borders is to be supported (ibid., 17). Several car pooling parkings are to be established close to the border in Longuyon, Briey, Bouzonville (FR), Mondorf (LUX) and Zoufftgen (FR). Also the parking capacity at train stations is to be increased (ibid., 23).

Bus lanes are to be built into the centre of Luxembourg. Direct bus lines are to be established within the agglomeration of Luxembourg (e.g. Cloche d'Or and Howald) to transfer the commuters to their offices. Furthermore, cross-border bus lines from Lorraine to Luxembourg shall complement the train offer (ibid., 16). The busses shall bundle the commuter flows and bring them to bigger multimodal hubs where the commuters can shift to trains (ibid., 21). To increase the cross-border multimodality parking lots are to be established in Frisange (LUX) at the border to France and in Ars sur Moselle, close to Metz (FR) (ibid., 17). These are to be connected with bus lines to Luxembourg and the South of Luxemburg. Busses

are also to be eveloped in a corridor of 10km from the Luxemburgish border (ibid., 21). Further crossborder bus projects are:

- A new bus line between Belval (LUX) and Aumetz (FR)
- Shuttle busses within the cross-border agglomeration Belval (LUX) Audun (FR)
- Additional bus and car-pooling lane on the motorway A31
- Direct bus line from Zoufftgen (FR) to Luxembourg (LUX)

Figure 181: SMOT Lorraine - Luxembourg



Source : ibid., 13.

Also some new road infrastructure is to be built, among others between Esch sur Alzette (LUX) and Micheville (FR) which includes the construction of a tunnel. Additionally, a bypass is to be established around Villerupt and Audun (FR) close to the Luxemburgish border. Until 2020 the E25 shall be expanded to 2+3 tracks (ibid., 27).

For Luxemburg the SMOTs are considered to be decisive policies and successful planning initiatives for the development of cross-border transport with the neighbouring regions of Luxemburg. The SMOTs were said to be developed with a high motivation of all parties. The existing aims of the regions were integrated into one written document. They were developed on the basis of a political agreement defining the tasks of the involved parties. The SMOT are not planned to be updated because they contain very broad objectives which remain valid for several years (Interview Vidal 2016; Interview Kies 2016). All focussedities responsible in the field of cross-border transport of their neighbouring countries were to be involved (Interview Besch and T. Juttel 2016). Based on an institutionalized partnership the transport focussedities analysed the status quo of the cross-border transport system (Interview Dostert 2016) and coordinated the transport services and infrastructure development in a common strategy to ensure the continuity behind the border (Interview Beck 2016). The SMOT with France was even awarded with a price as a cross-border project in the field of transport (Interview Besch and T. Juttel 2016) and is seen as role model for the two later established SMOTs (Interview Vidal 2016). According to Vidal, after the development of the SMOT with France, the other neighbouring regions expected that Luxemburg will develop a SMOT with them as well (ibid.).

## Qintracity – Die attraktive Schienenverbindung in der QuattroPole (2010)

In 2010 a concept of a railway circle between the four cities of QuattroPole was developed. The cities of the Quattropole shall be connected to the European long-distance traffic. Furthermore, the internal accessibility shall be improved (Ried 2010, 3). The public transport offer shall be coordinated better across borders so that fast, regular, direct and cheap connections between Luxembourg (LUX) and Trier (DE); Luxembourg (LUX) and Metz (FR), Metz (FR) and Saarbrücken (DE) and Saarbrücken and Trier (DE) can be offered (ibid., 6). AlsoSaarbrücken and Luxembourg are to be connected via fast bus as well as Metz and Trier via regional train (ibid., 7). Intermediate stops between the cities shall increase the accessibility of the hinterland (ibid., 8). The cities shall be connected nine times a day with five vehicles (ibid., 9).The concept should be integrated into the public transport within the Greater Region (ibid., 13).

## Feuille de route Mobilité+ (2011)

In 2011 the Tonicités network established a mobility road map. It defines several projects which shall enhance cross-border transport on its boundaries. Among others, the border crossing between Zouftgen (FR) and Luxemburg shall be updated and expanded to avoid congestions (Tonicités and Groupe de Travail Mobilité 2011, 5). Furthermore, the rail connection between Metz (FR) and Bettembourg (LUX) is to be enhanced for both freight and passenger transport. Therefore studies are to be conducted and the development of a freight track between Athus (BE) and Jarny (FR) is to be promoted (ibid., 6). Additionally, a third track which is reserved for public transport and car pooling shall be established at the motorway between Thionville (FR) and Luxembourg (LUX). Alternatively the hard shoulder should be opened for busses in times of congestion (ibid., 7). Further concrete rail and road projects with lower priority are depicted in the list below. Besides that the different transport modes shall be coordinated better including common timetables, tariffs and information (ibid., 9)

## Vision d'avenir pour la région Eurodistrict SaarMoselle (2011)

The Eurodistrict SaarMoselle has developed a vision of the future development which also relates to transport across borders. A cross-border transport network is to be established (EVTZ Eurodistrict SaarMoselle 2011, 8). A detailed Master plan shall be developed for the public transport across borders which shall contain proposals on the organisation, tariffing, financing and design of the transport network. A focus is laid on the expansion of cross-border rail transport. More concrete the Saarbahn shall be prolonged from Saarbrücken (DE) to Forbach and St. Avold (FR) among others (ibid., 18).

## **Conclusions de la troisième Réunion de la Commission Intergouvernementale Franco-Luxembourgeoise pour le Renforcement de la Coopération Transfrontalière (2013)**

As a result of the third meeting of the intergovernmental French Luxemburgish commission a concluding document was adopted wich relates to transport: the connection Micheville shall be implemented until 2015 to minimize the congestion in the daily cross-border commuter flows between Belval (LUX), Audun-le-Tiche and Villerupt (FR) (Commission Intergouvernementale Franco-Luxembourgeoise pour le Renforcement de la Coopération Transfrontalière 2013, 2). A study on the transport challenges on the motorway A31-A3 between Luxemburg and France shall be conducted. The Commission supports the cooperation to enhance the capacity and safety in the cross-border rail transport between Bettembourg (LUX) and Thionville (FR) (ibid., 3f.).

## Orientations stratégiques du GECT Alzette-Belval Peride 1: 2014-2016 (2014)

In 2014 the GECT Alzette-Belval developed a strategic development approach which relates to the transport development among others. The cross-border mobility shall be enhanced by further improving and extending the offer of cross-border public transport services within the local cross-border region (GECT Alzette Belval 2014, 4, 16). The multimodality of the different offers shall be increased by

establishing central nodes of exchange and improving the accessibility of information on the offers (ibid., 16). Additionally, a coordination of cross-border tariffs for short-distance traffic within the local cross-border region shall be ensured (ibid., 17). Furthermore, a development concept for the region shall be developed (ibid., 24).

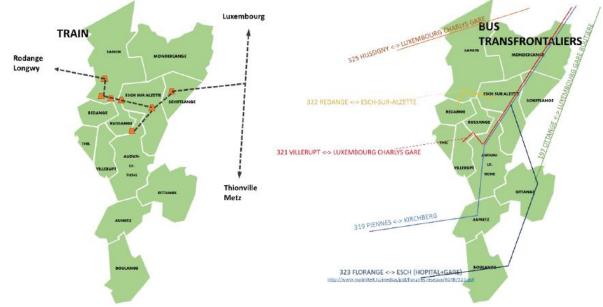


Image 52: Cross-border transport in the GECT Alzette-Belval

Source: ibid., 4.

Cross-border car pooling shall be promoted as alternative to the public transport offer (ibid., 30). A cross-border project on sustainable transport shall be developed which can be funded via ETC funds (ibid., 30).

Additionally, the cross-border congestions between Audun le Tiche (FR) and Esch sur Alzette (LUX) are to be minimized because they hamper the cross-border busses to arrive in time. Studies are to be conducted to find solutions (ibid., 32).

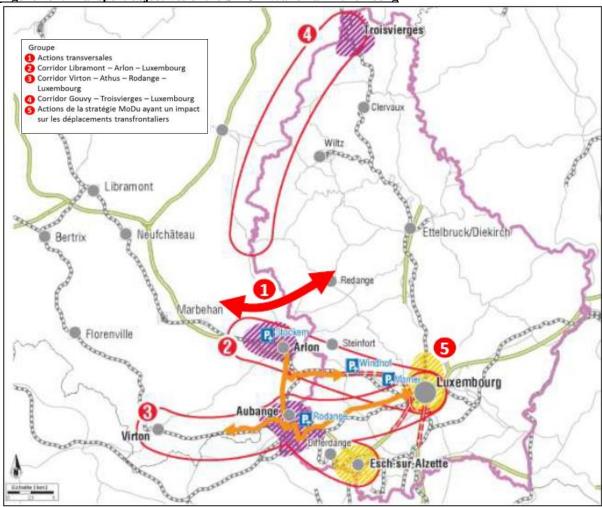
## Générer un Réseau de Transport en Commun pour l'Agglomération Transfrontalière d'Alzette Belval en Augmentant l'Interopérabilité des Offres Routières Présentes (2015)

This document describes the results of a study n the establishment of a cross-border public transport system within the EGCT Alzette-Belval. The status quo of the public transport offer in the cross-border region of the EGTC is presented. Based on the results, it is promoted to connect the national public transport offer better to the cross-border connections to develop better transport connections to places outside the cross-border agglomeration. Furthermore, the interoperability between cross-border lines should be improved. Thus the schedules should be coordinated better. Furthermore, the existing offer should be promoted more with a common advertising concept to make it more attractive also to the transit transport (GECT Alzette Belval 2015, 2, 50f.). The national transport providers should be involved to improve the coordination. An information platform which combines the schedules national and the cross-border connections which are relevant for the EGTC should be developed or the connections should be integrated into an existing platform. To do so, funds and the support of the transport providers is needed (ibid., 50f.).

## SMOT (Schéma de mobilité transfrontalière) BE-LUX (2015)

Like the SMOT between France and Luxemburg, also a SMOT between Wallonia and Luxemburg was developed. The SMOT shall promote public transport and 'soft' mobility across borders (Ministère du Développement durable et des Infrastructures de Luxembourg and SERVICE PUBLIC DE WALLONIE

2015, 7). The cross-border tariffs of Belgium and Luxemburg shall be harmonized. A reduced price is to be offered from Belgium to the Luxemburgish border (ibid., 35). The connection between the 'Bassin minier' in Luxemburg and Arlon, Athus and Virton (BE) shall be improved by developing a direct rail connection in the long term. Additionally, the rail connections between Athus (BE), Luxembourg, Rodingen and the 'bassin minier' (LUX) and directly between Athus and Rodingen in the peak hours shall be developed in the medium term. The rail vehicles need to be harmonized between Luxemburg and Belgium (ibid., 39). The rail line between Luxembourg, Kleinbettingen (LUX), Arlon and Namur (BE) is to be modernized and re-electrified to become more attractive and competitive to the road connection. The electric voltage of the Luxemburgish and Belgian system is to be harmonized on this track (ibid., 62). The rail track between Clervaux and the tunnel 'Pfaffenmühle' within Luxemburg is to be expanded with a second track which shall minimize the congestions and be of benefit for the Belgian cross-border commuters (ibid., 76).





In the short term a fast bus connection between the 'bassin minier' and the rail stations of Rodingen (LUX), Arlon and Athus (BE) shall be developed (ibid., 38f.). These bus connections should not necessarily pass through Luxembourg but connect the commuters directly to the economic growth centres in the south of Luxemburg like Belval, Ban de Gasperich, Windhof and Capellen (ibid., 56). Additionally, a bus line between St. Vith (BE) and Troisvierges (LUX) is to be developed which connects the German speaking community to Luxemburgish trains starting in Troisvierges (ibid., 77).

Source: ibid., 46 ; amended by the focussed, 2017.

Furthermore, the offered bus lines of the Luxemburgish and Belgian bus operators should be coordinated better (ibid., 57).

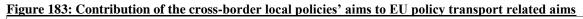
The national road N6 starting at the Belgian border shall be equipped with a bus track between Mamer, Steinfort, Strassen and Bartreng (LUX). This shall lead to less congested motorways A4, A6 and A13 (ibid., 63). A bus lane is also to be established on the N5 between Péiteng located close to Belgium, via Dippach, Bartreng to Luxembourg (LUX) (ibid., 71).

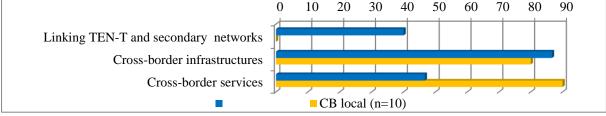
Furthermore, park and ride corridors are to be established in Rodingen (LUX), around Arlon, in Stockem (BE), and next to the motorway A4/A6 to minimize the road congestions. Also a P&R infrastructure is to be established in Windhof and Mamer (LUX) close to the Belgian border. Car pooling is to be promoted (ibid., 40,50,60). The park and ride infrastructures should be connected with other transport modes. For instance bus stops could be established in Viville, Stockem (BE) and Windhof (LUX) which connect the commuters with larger cities or directly Luxembourg (ibid., 58,60). Furthermore, the P&R infrastructure in Rodingen (LUX) is to be connected via road, rail and bicycle lanes to Athus, Aubange and Messancy (BE). The road connections (N88, N872 to Athus (BE)) are to be expanded because of expected increased transport flows to the parking. Studies for the expansion of the N830 are to be conducted (ibid., 68f.).

The cross-border bicycle networks that exist in parallel of both sides of the border should be interconnected and favour a shift from motorized transport to soft transport across the border for short distances (ibid., 42). Gouvy (BE) shall be connected to Troisvierges (LUX), Wiltz (LUX) to Bastogne (BE), Clairefontaine (BE) to Steinfort (LUX) and Aubange/Athus (BE) to the Luxemburgish bicycle network (ibid., 52). Also the bicycle mobility shall be combined with other transport modes (ibid., 53).

An information platform on multimodal cross-border transport offers shall be developed which informs about real time transport, allows travel itineraries including different modes across the border and convinces commuters to use public transport to minimize environmental harm (ibid., 51).

According to Demortier the SMOT with Belgium has had trouble to define concrete orientations for the cross-border transport development because the Wallonie did not have competences in the field of rail transport. Thus the SMOT could not define aims in cross-border rail connections between Wallonia and Luxemburg (Interview Demortier 2016). Still for the regional administrative level in Wallonia the strategic principles of the SMOT are very relevant and are expected to be taken up in the new regional Walloon SRM. In this context it is expected that principles will be implemented soon when being anchored in the domestic policies (Interview Castagne 2016).





Source: Author, Kaiserslautern, 2017.

Concrete cross-border transport-related projects defined in the cross-border local policy documents Rail

- Rodange Longwy (more connections) (PED)
- Rodange Athus (more + direct connections) (PED) (SMOT BELUX)
- Rodingen (P&R) Athus, Aubange and Messancy (new) (SMOT BELUX)
- Rodannge Differdange Esch (more connections) (PED)
- Longwy Belval Thionville (new connection) (PED)
- Pétange Luxembourg (expansion of track) (PED)
- Thionville- LUX (higher capacity new infrastructure) (PED)
- Thionville Esch Longwy (direct connection) (FRM)
- Rodange FR (expansion of tracks) (PED)
- Bettembourg Thionville Metz Nancy (higher capacity of the service) (PED) (CIFL)
- Luxembourg Trier (improvement of service) (Qintra)
- Luxembourg Metz (improvement of service) (Qintra)
- Luxembourg, Kleinbettingen (LUX), Arlon and Namur (track modernization)(SMOT BELUX)
- Metz- SB (improvement of service) (Qintra)
- Metz Trier (improvement of service) (Qintra)
- Metz Bettembourg (service enhancement) (FRM)
- Athus Jarny (development) (FRM)
- Bruxelles (BE), Luxembourg (LUX) and Strasbourg (implementation) (FRM)
- Arlon (BE), Ringen, Petingen and Belval (improvement) (FRM)
- Prolongation Saarbahn SB Forbach St. Avold (FRM)
- Bassin minier' in Luxembourg and Arlon, Athus and Virton (new direct rail)(SMOT BELUX)

Road

- A28 E411 A30 (new link) (PED)
- prolongation of the A28 from Longwy (FR) to Arlon (BE) (FRM)
- connection of Belval (LUX) to the A30 (FR) via Tiercelet (FRM)
- A30 (FR) A4 (LUX) . connection with a ring road (p.97 Image in PDF)(PED)
- Avenue Europe (Expansion) (PED)
- Car pooling infrastructure: Longuyon, Briey, Bouzonville (FR), Mondorf (LUX) and Zoufftgen (PED)
- P&R: Ars sur Moselle (PED)
- A31Additional bus and car-pooling lane (PED)
- Motorway Thionville Luxembourg (public transport lane) (FRM)
- Esch Micheville (new incl. tunnel) Audun-le-tiche Villerupt (PED) (CIFL)
- Villerupt Audun LUX (bypass) (PED)
- E25 (expansion) (PED)
- Zouftgen (FR) and Luxembourg (expansion) (FRM)
- N6 starting at the Belgian border shall be equipped with a bus track between Mamer, Steinfort, Strassen and Bartreng (SMOT BELUX)
- bus lane on the N5 between Péiteng located close to Belgium, via Dippach, Bartreng to Luxembourg (SMOT BELUX)
- Rodingen (P&R) Athus N88, N872, Aubange and Messancy (new) (SMOT BELUX)
- Study: expansion N830 (SMOT BELUX)
- Study: A31 A3 LUX FR
- Study: Audun le Tiche (FR) and Esch sur Alzette (minimizing congestions)(OS AB)

#### P&R

• Rodingen, Arlon, Stockem, Windhof, Mamer (new infrastructure) (SMOT BELUX)

• established or expanded in Nennig-Zoll, Dillingen, Merzig, Mettlach, Orscholz, Sinz, Sirzenich,

Ehrang, Euren, Trier (DE) and Wasserbillig (LUX) (SMOT DELUX)

Bicycle

• Gouvy (BE) shall be connected to Troisvierges (LUX), Wiltz (LUX) to Bastogne (BE), Clairefontaine (BE) to Steinfort (LUX) and Aubange/Athus (SMOT BELUX)

#### Bus

- new bus line between Belval (LUX) and Aumetz (FR) (PED)
- Shuttle buses within the cross-border agglomeration Belval (LUX) Audun (FR) (PED)
- Direct bus line from Zoufftgen (FR) to Luxembourg (LUX) (PED)
- SB Luxembourg (improvement of service) (Qintra)
- Viville, Stockem, Windhof Luxembourg (Bus stops) (SMOT BELUX)
- New fast bus connection between the 'bassin minier' and the rail stations of Rodingen (LUX), Arlon and Athus (SMOT BELUX)
- St. Vith (BE) and Troisvierges (new) (SMOT BELUX)
- New intermediate express bus Luxembourg Saarbrücken stop in Dillingen or Merzig (SMOT DELUX)

Public services:

- Prolongation across borders
- Igel (DE) and Wasserbillig (LUX) (SMOT DELUX)
- RGTR lines 117, 118 and 306 (LUX) to Trier (DE) (SMOT DELUX)
- line 190 from Wincheringen (DE) to Wormeldange (LUX) (SMOT DELUX)
- RGTR line 132 from Nittel to Tawern (DE). (SMOT DELUX)
- New connections:
- Metzdorf, Langsur (DE), Wasserbillig (LUX) (SMOT DELUX)
- Bitburg, Mettendorf (DE), Ettelbrück (LUX) (SMOT DELUX)
- Konz, Tawern (DE) –Grevenmacher (LUX) (SMOT DELUX)
- Trier, Aach, Ralingen (DE), Echternach (LUX) (SMOT DELUX)
- Dillingen or Merzig (DE) shall be connected to the Express-bus between Saarbrücken (DE) and Luxembourg (LUX) (SMOT DELUX)
- Improvement:
- high speed bus (155) between Saarlouis, Dillingen, Merzig (DE) and Luxembourg (LUX) (SMOT DELUX)
- line 159 between Losheim, Mettlach, Orscholz, Sinz, Nennig-Zoll (DE), Luxembourg (LUX) (SMOT DELUX)
- line 156 between Merzig, Perl, Besch, Nennig-Zoll (DE), Luxembourg (LUX) (SMOT DELUX)

# Contribution of domestic and cross-border policy transport documents to cross-border

	0	10	20	30	40	50	60	70	80	90	100
Transport infrastructure network									_	-	-
Remove barriers, improving efficiency								_			
Linking TEN-T and secondary networks		-	-								
Relieve routes/ fighting congestion				_			-				
Intermodality/ interoperability		_		_				_			
Intelligent transport systems			_	-							
Freight corridors				•							
New technologies/innovations (research)							•				
Improving mobility of freight						, i					
Improving mobility of passengers											
Accessibility of remote areas					_			-			
Cross-border infrastructures						-		- 1		-	
User-friendliness		_	_	_				_			
Transport services									_		
(Urban) public and soft mobility		_	_	_	_	• · · ·			-		
Transport safety				_	_		-				
Cross-border services				_							
Environmental and sustainable issues		- ·		_	-	1	-	- 1	- 1		
Alternative modes of transport		- ·				1			_		
Alternative fuels/ climate change									-		
Minimizing environmental harm		<u> </u>	· ·						-		
Sustainable transport						_	_				
Exchange of practices/ coordination				_							
■ EU policy (n=15) ■ BE (n=31)	_	FR (n	=21)	DE	E (n=3	5)	LUX	(n=14	) _	CB (n=	=24)

# transport

Figure 184: Contribution of the domestic and cross-border policy aims to the EU policy transport related

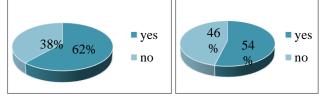
Source: Author, Kaiserslautern, 2017.

#### **Brandenburg-Lubuskie** X.3.1.3

# Germany

# *Regional level: Brandenburg*

Figure 185: Relation of the German regional policies (Brandenburg) to cross-border transport (left) and the TEN-T (right) (n=13)



Source: Author, Kaiserslautern, 2017.

# Integriertes Verkehrsentwicklungskonzept (IVK) (2002)

The IVK expected the accession of Poland to the EU to go hand in hand with a higher transit transport and improve the region's position in the EU (Land Brandenburg 2002, 27). In this context the IVK defines most important transport projects that enhance the connection to Poland: Waterways, border crossings and road and railway border sections. Transport planning and projects are to be coordinated across-borders. This shall contribute to faster connections between the two countries in their passenger

and freight transport and to better economic interrelations. The TEN-T are to be further developed to Sczeczin, Poznan, Warsaw, Wroclaw (through Cottbus) and Prague in multimodal corridors. Investments in the connection between metropolitan regions shall also be economically beneficial for the in between cross-border regional centres. Prerequisite is a cross-border regional transport network combined with the coordination of domestic transport planning (ibid., 64). Cross-border freight transport with Poland shall be improved. Large scale logistical networks are to be established in cooperation with the international neighbours to make them more environmentally friendly and efficient (ibid., 91ff.).

### LEPro 2007 (2007)

According to the LEPro the region shall make more use of its central position within Europe by developing more efficient transport networks and corridors in all cardinal directions (Hauptstadtregion Berlin-Brandenburg 2007, 5f.). A higher external accessibility shall contribute to economic growth and transnational exchanges of goods but also on the job market. The connections to Scandinavia, Poland, the Baltic States, Russia and the Czech Republic and central places outside the region shall be improved. The connections to Poland Frankfurt/Oder and Cottbus are important nodes. These nodes shall be internally connected better with Berlin. The public transport offer in the rail long distance traffic shall be improved particularly. Also logistical platforms shall be established or extended in terms of infrastructure, services and transport offers to make use of the growing transit transport in the region (ibid., 9 and 16).

### Operationelles Programm des Landes Brandenburg für den EFRE (2007-2013) (2007)

According to the Operational Programme of Brandenburg for the funding period (2007-2013) the supraregional accessibility shall be enlarged (64). In this context the internal transport infrastructure shall be connected to the TEN-T to facilitate cooperations with Poland and international transport networks. Also the internal transport infrastructure shall be upgraded (143f.).

#### Landesnahverkehrsplan 2008-2012 (LNVP) (2008)

The rail network of the region and its rural spaces shall be linked to the TEN-T via Berlin (16). Additionally it is considered to be necessary to coordinate public railway lines with the neighbouring states and to establish common service lines (42). The maps for the target network in 2008 show the connection of the lines across the Polish borders (66f.). Until 2020 the cross-border connections to Poland shall be further expanded: more and longer connections are to be established (80f.).

#### LEP B-B (2009)

The LEP B-B aims at enhancing the transport connections with other European metropolitan regions and cities and European comprehensive development corridors. Both north-south as well as east-west connections are to be fortified (15). Based on the European TEN policy the LEP B-B defines several transnational transport corridors which cross the node Berlin from all different cardinal directions: Hamburg/Atlantic Space, Rostock (Scandinavia), Sczeczin (Baltic Space), Warsaw (Baltic Space) and Moscow, Breslau and Kiev, Dresden and Vienna (Adriatic Space), Leipzig, Munich and Milano, as well as from Hannover and Paris (see **Figure 186**). Especially the rail connections to Scandinavia, the Baltic and to Poland and Russia (Posen, Warsaw through Frankfurt/Oder) and to the Ukraine (Kiev through Cottbus and Wroclaw) are to be improved. Therewith Berlin shall be positioned better in the Centre of Europe to generate economic growth. Besides that the European regions are to be better interlinked (Hauptstadtregion Berlin-Brandenburg 2009, 23 and 50). These transnational corridors should be taken into account when securing the accessibility and interconnection of the region. Supraregional roads, shown in **Figure 186** in orange and railroads in violet, are to be secured and developed further - with priority - based on the demand (ibid., 22 and 50). The corridors are said to be the prerequisite for large

European development corridors. The latter shall increase the growth of linkages across national borders between metropolitan regions and contribute to a higher economic integration within the EU (ibid., 23).



#### Figure 186: Map of the LEP B-B: Transnational Transport Corridors

The *Landesstraßenbedarfsplan* (2010) and the *innoBB* (2011) define aims in the field of transport but do not refer to cross-border transport or the TEN-T.

### Landesnahverkehrsplan 2013-2017 (LNVP) (2012)

The coordination of high speed and regional public rail transport across borders with the Polish transport providers is to be fostered to create synergies (Ministerium für Infrastruktur und Landwirtschaft des Landes Brandenburg 2012, 10). The public transport to Poland is to be strengthened because of Polish growing urban hubs – among others Zielona Góra (ibid., 68). The frequent train connection between Berlin – Küstrin-Kiez (DE) and Kostrzyn – Gorzow (PL) is strongly frequented and thus considered to be very successful as it is based on one tariff (ibid., 68). An attractive direct rail connection between Berlin (DE) and Zielona Góra was to be offered until 2013. Also an attractive high speed rail connection between Berlin (DE) and Wroclaw (PL) is to be redeveloped. Therefore the rail infrastructure is to be expanded between Brandenburg and Poland as alternative to road transport (ibid., 70). Connecting trains are to be coordinated better at railway stations at the Polish border. Cross-border services offers are to be tendered jointly (ibid., 71).

It was aimed to establish a regular service rail connection between Frankfurt/Oder (DE) and Rzepin (PL) as well as between Forst (DE) and Zagan (PL) until 2016(ibid., 101). In the medium and long run a regular service – every 60 minutes - is whished to be offered between Berlin, Müncheberg (DE) and Kostrzyn – Gorzow (PL) (ibid., 106). Also single train connections between Frankfurt/Oder (DE) and Rzepin (PL) as well as between Forst (DE) and Zagan (PL) are to be offered in a regular service in the future (ibid., 107).

The TEN-T are to be expanded and secondary networks should connect the more remote and rural regions efficiently to the TEN-T (ibid., 42).

The plan refers to the LEP B-B and its accessibility standards which are to be met, the IVK, the ESDP and funded INTERREG projects SCANDRIA and SoNorA (ibid., 42f.)

The *Operationelles Programm des Landes Brandenburg für den EFRE* (2014-2020) from 2014 promotes several transport related aims but does not refer to cross-border transport or the TEN-T.

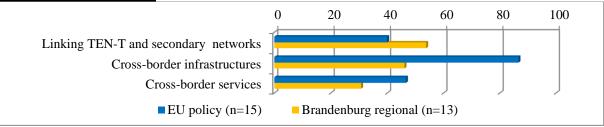
Source: ibid., Festlegungskarte 1.

# Internationalisierungsstrategie (IS) für das Land Brandenburg (2014)

Brandenburg shall be further integrated in the Baltic Sea Region and its macro-regional strategy, among others in the field of transport corridors. The SCANDRIA project shall be continued. The location of the Metropolitan Region Berlin-Brandenburg which is crossed by three TEN-T corridors shall be further be made use of (12).

The *Nachhaltigkeitsstrategie der Landesregierung* (2014) and the *Verkehrssicherheitsprogramm Brandenburg* (2014) define several aims in the field of transport but do neither relate to the TEN-T nor to cross-border transport.

# Figure 187: Contribution of the German regional (Brandenburg) policies' objectives to EU policy transport related objectives



Source: Author, Kaiserslautern, 2017.

# Concrete cross-border transport-related projects defined in the regional policy documents of

# <u>Brandenburg</u>

All modes:

- The TEN-T in Germanys are to be further developed to Sczeczin, Poznan, Warsaw, Wroclaw (through Cottbus) and Prague in multimodal corridors. (IVK)
- The connections from Berlin to Poland Frankfurt/Oder and Cottbus shall be internally connected better (all modes)(LEPro)

Rail:

- attractive high speed rail connection between Berlin (DE) and Wroclaw (PL) is to be redeveloped: expansion of infrastructure (LNVP 2012)
- public transport to Poland is to be strengthened to Zielona Góra(LNVP 2012)
- establish a regular service rail connection between Frankfurt/Oder (DE) and Rzepin (PL) as well as between Forst (DE) and Zagan (PL) (LNVP 2012)
- regular rail service every 60 minutes is whished to be offered between Berlin, Müncheberg (DE) and Kostrzyn Gorzow (PL) (LNVP 2012)
- single train connections between Frankfurt/Oder (DE) and Rzepin (PL) as well as between Forst (DE) and Zagan (PL) are to be offered in a regular service (LNVP 2012)

# Subregional level

# Regionalplan Lausitz Spreewald (1995/97) (Teilregionalplan Zentralörtliche Gliederung)

The two cities Forst (Lausitz) and Guben which are located close to the Polish border shall benefit from their vicinity to the Polish border development impulses for the structurally weak surrounding area. The transport connection to Poland shall be improved sustainably and the logistical hub of Forst shall be expanded. Additionally, a common urban development of Forst together with the Polish municipality Zasieki could improve the cross-border cooperation. Guben shall reactivate its train transport to Poland (Region Lausitz-Spreewald 1997, 3,12). However, this regional plan is not legally binding anymore (Interview Ullrich 2016)

The *Regionalplan Oderland-Spree* (1996) defines several requirements for the transport development but does not refer to cross-border transport. Furthermore, it is not legally binding anymore (Interview Kramer 2016).

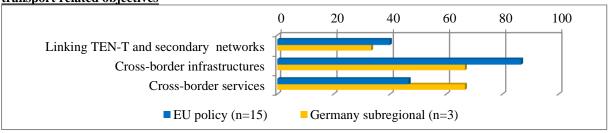
# Integriertes Verkehrskonzept 2 der Region Oderland-Spree (2008)

The Polish and German centres of the region shall be interconnected better and improve the accessibility of the network to Berlin to increase the demand of the regional railroads and the spatial integration of the cross-border region (Regionale Planungsgemeinschaft Oderland-Spree 2008, 11). The cross-border roads, especially the bridges across the Oder to Poland shall be modernized to allow higher flows of passengers and goods. This shall be done to economically benefit from the vicinity of the region to the Polish border (ibid., 15).

Additionally, the navigability of the Oder shall be improved to facilitate freight transport from Poland to Germany throughout the year (ibid., 19). The transport of goods across the border shall be further fortified also through the establishment of a new cross-border bridge (ibid., 28).

Public transport services shall also be developed across borders especially in border cities but also between larger economic centres (ibid., 24f.). For touristic purposes the bicycle path and hiking trail network on the Oder river shall be further developed also across borders as a form of environmentally friendly transport. Missing links shall be completed (ibid., 31).

Figure 188: Contribution of the German subregional (Brandenburg) policies' objectives to EU policy transport related objectives



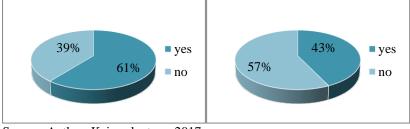
Source: Author, Kaiserslautern, 2017.

Concrete cross-border transport-related projects defined in the German subregional policy documents of Brandenburg

- Expansion of logistical hub of Forst across borders (Regionalplan LausitzSpreew.1995/97)
- Reactivation of train from Guben to PL (Regionalplan LausitzSpreew.1995/97)
- New CB bridge for goods (IVK2 2008)
- Renovation of all CB road bridges (IVK2 2008)
- Navigability of the Oder (IVK2 2008)
- Bicycle path next to the Oder +across borders (IVK2 2008)
- Expansion of road and rail network between Berlin Poznan and Warsaw (IVK1 2007)
- Expansion of regional transport network for freight and passengers in Eisenhüttenstadt across bordes (IVK1 2007)
- cross-border rail bridge is to be established across the Oder in Frankfurt (IVK1 2007)

#### German, Brandenburgian and subregional policy aims – overview

Figure 189: Relation of the German policies to cross-border transport (left) and the TEN-T (right) (n=28)

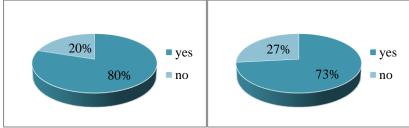


Source: Author, Kaiserslautern, 2017.

# Poland

# National level

Figure 190: Relation of the national Polish policies to cross-border transport (left) and the TEN-T (right) (n=15)



Source: Author, Kaiserslautern, 2017.

# National Transport Policy for 2005-2025 (NTP) (2005) (Polityka transportowa państwa na lata 2005-2025)

As the document was established to react on the EU accession it contains several relations to the EU transport network. Among others the Polish transport network shall be adapted to the EU system (Ministerstwo Infrastruktury Polska 2005, 5). At the same time, the opening of the transport market is considered as a potential threat for the inefficient national transport operators because of a high competition from the other EU countries and transport systems (ibid., 6). Missing own capital is seen as a challenge to benefit from EU co-funding (ibid., 7). Besides that, international transport connections are to be developed by the modernization of the cross-border sections to train stations located at the national border (ibid., 14). Besides that Polish freight and passenger transport providers are to be supported so that they can expand the offer across borders and develop intercontinental and trans-European connections (ibid., 13). Furthermore, it calls cross-border regions and regions situated next to European transport corridors to increase the coordination of the different domestic transport policies across borders to ensure the coherence of the transport systems in the EU (ibid., 31).

# National Strategic Reference Framework (NSRF)/ National Cohesion Strategy (NCS) 2007-2013 (2007) (Narodowa strategia spójności 2007-2013)

According to the National Cohesion Strategy the Polish regions should be efficiently linked to the EU Member States' regions by trans-European infrastructures (Ministry of Regional Development Poland 2007, 47,62). It shall be cooperated across borders and transnationally. Cross-border transport is to be expanded (ibid., 63,79). The Polish road and railway systems shall link the Polish main economic hubs and be linked to the TEN-T (ibid., 63f.).

# National Strategy of Regional Development 2010-2020: regions, cities, rural areas (2010)

Efficient road and rail connections are to be established between the capital cities of the voivodeships (e.g. Zielona Góra and Gorzów) and the most important cities outside Poland (e.g. Berlin) (Ministerium für Infrastruktur und Entwicklung Polen 2014, 157; Ministry of Regional Development Poland 2007, 78). The Polish transport network is to be linked efficiently with the European transport network (Ministry of Regional Development Poland 2010, 80). The cross-border connections across rivers or mountains shall be expanded. Additionally, cross-border cooperation shall be fostered on local level to overcome the barriers and to develop a cross-border offer of public services (Ministerium für Infrastruktur und Entwicklung Polen 2014, 174). Especially cities separated by a border like Frankfurt/Oder and Słubice should strengthen their position by developing a common centre (Ministry of Regional Development Poland 2010, 101). Also cross-border cooperation is to be fostered in the Baltic Sea and Central Europe Programme (ibid., 91).

# National Road Construction Programme for 2011-2015 (NRCP)(2011)

According to the progamme it is to be contributed to the cohesion of the Member States' transport systems (Rzeczpospolita Polska 2012, 9). The development of the TEN-T is considered to contribute to this aim by integrating the most important national tracks into a European network. Among others the motorway A2 shall be completed on the North Sea Baltic Corridor close to Swiecko (Ministerstwo Infrastruktury i Budownictwa Polska 2015, 22).

# National Spatial Development Concept 2030 (NSDC) (2012) (Koncepcja Przestrzennego Zagospodarowania Kraju 2030)

The concept accredits the European Transport Policy, especially the TEN-T, a high relevance on the spatial development of Poland. International transport projects are to be implemented with the help of the TEN-T funds (Ministry of Regional Development Poland 2012, 32f.). The Polish transport network linking its cities should be connected to the TEN-T and therewith to other large EU cities (ibid., 11).

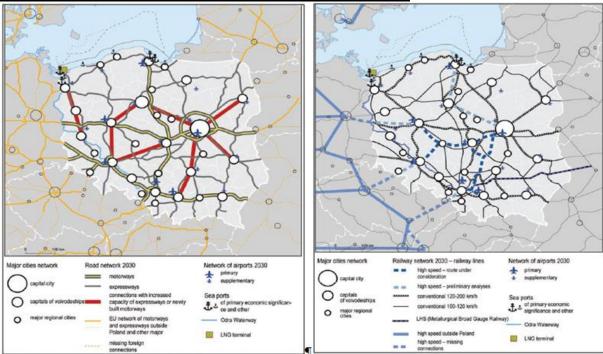


Image 53: Vision of the Polish road (left) and rail network (right) in 2030

Source: ibid., 41f.

Freight transport across-border shall become more efficient and safer (ibid., 38). The accessibility of Poland by different transport modes shall be improved. Furthermore, the connections between central parts of Poland and border regions shall be enhanced (ibid., 97). The Metropolitain network of Poland shall be connected efficiently across borders, e.g. to Berlin (ibid., 44).

In 2030, the Polish planning system shall be integrated into European planning strategies by taking into account European territorial development strategies, the aims of EU macro-regions and the territorial influence of implemented EU policies. The spatial and transport development shall be coordinated across borders and cross-border regions shall be commonly planned taking into account the interests of both sides of the border (ibid., 60).

The connection of the Oder river to the Spree connecting Szczecin (PL) to Berlin (DE) and the further European waterway network shall be improved (ibid., 100). The cross-border cooperation between Polish and German rural areas and cities shall lead together with better transport connections to the development of functional areas. Also cross-border development plans are to be established – among others between Frankfurt/Oder (DE) - Słubice (PL) and Guben (DE) - Gubin (PL). In the future transport

bottlenecks at the border are to be jointly removed and cross-border public transport is to be promoted (ibid., 91). Key railway lines to Germany are to be developed (ibid., 103).

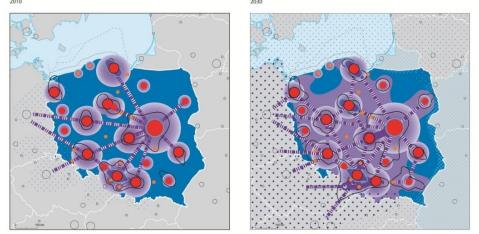
# Medium-Term National Development Strategy 2020 (MTNDS) (2012) (Strategia Rozwoju Kraju 2020)

According to the national development strategy the transport connections to the European Member States shall be improved gradually (Rzeczpospolita Polska 2012, 13). The quality of cross-border transport connections shall be enlarged until 2020 (ibid., 19). The document relates to the Europe 2020 Strategy and wants to contribute to a higher efficiency of transport (ibid., 26). The Polish transport system shall consist of a core and comprehensive network like the TEN-T. The external accessibility of the country shall be improved (ibid., 97) by developing the TEN-T. This shall also contribute to the cohesion of the national transport networks of the Member States (ibid., 99). The Polish border areas shall improve the cross-border transport infrastructure because it was identified to be a decisive barrier for cross-border cooperation (ibid., 123). The "infrastructure gap" between the old Member States and Poland shall be minimized (ibid., 126).

# Long-Term National Development Strategy - Poland 2030. The third wave of modernity (LTNDS) (2012) (Polska 2030 Trzechia fala nowoczesnosci Długookresowa Strategia Rozwou Kraju)

The strategy aims at improving the functional connections to Germany and enhancing the integration of the Poland until 2030. In this context investments in the establishment and expansion of an integrated transport system shall be taken with a focus on the core and comprehensive TEN-T network besides the national roads (Ministerstwo Administracji i Cyfryzacji Polska 2013, 28).





Source: ibid., 28.

The National Road Safety Programme 2013-2020 (NRSP 2013) (2013) (*Krajowy Program Bezpieczeństwa Ruchu Drogowego*) and the National Operational Programme Infrastructure and Environment 2014-2020 (NOPIE) (2014) (*Program Operacyjny Infrastruktura i Środowisko 2014-2020*) do neither refer to cross-border transport nor the TEN-T. It also does not refer to cross-border cooperation.

#### IPPON: Studie der räumlichen Integration des deutsch – polnischen Grenzraums (2014)

In general, the spatial development of the border cities is to be coordinated across borders (Ministerium für Infrastruktur und Entwicklung Polen 2014, 185,187).

The East-West TEN-T Corridor crossing the German and Polish border area is considered to be very important for the Polish integration to the EU and international transport corridors. Therefore its expansion is to be supported (ibid., 27). The spatial structure of Lubuskie is said to be based on the East-

West transport axes of the Pan-European transport corridors II and III and the North South axis between Gorzów Wlkp. and Zielona Góra (ibid., 61). The transport infrastructure on the Polish side of the Polish-German border area needs to be modernized (ibid., 79). The transport infrastructure in the regions that are crossed by the Central European Transport Corridor should be harmonized and made more interoperable. Transport barriers shall be removed between the bordering regions. Besides that the Polish rail line 203 shall be modernized and electrified from Krzyż - Kostrzyn (PL) to the German border ( (ibid., 133ff.,189). Furthermore, the railway line between Berlin (DE) and Kostrzyn nad Odra, Gorzów.and Piła (PL) shall be modernized and electrified (ibid., 159). The public transport offer in cross-border connections shall be developed further such as the modernization between Tczew, Kostrzyn (PL) to Küstrin-Kietz (DE), a common ticket for cross-border connections between Berlin (DE) and Górzow (PL) and the foundation of a common European Economic Interest Group (EEIG) for the management of a cross-border railway line (ibid., 159f.). Also new rail road connections between Zielona Góra (PL) and Brandenburg (DE) are to be developed (ibid., 160). The rail line 275 between Guben (DE), Gubinek, Lubsko, Jasień and Żagań (PL) shall be reestablished and the rail line 358 between Guben (DE), Gubin, Krosno Odrzańskie, Czerwieńsk and Zielona Góra shall be modernized (ibid., 185). Furthermore, a rail-road connection is to be established between Zielona Góra, Gubin (PL) and Cottbus (DE) (ibid., 160).

The Central European Transport Corridor should be recognized as a green transport corridor and the TEN-T should integrate the Oder waterway to the network as an important connection to the Danube (ibid., 136). Additionally the national road DK24 shall be upgraded to a high speed road from Kostrzyn nad Odra (PL), at the German border, and connected to the existing high speed road S3 in Gorzów (PL) (ibid., 160).

Several roads are to be expanded in the vicinity of the cross-border town Guben-Gubin: The national road DK32 is to be expanded between Gubin at the German border, Krosno Odrzańskie and Zielona Góra. Additionally, the voivodeship roads 286 and 138 shall be modernized between Gubin and Biecz respectively Maszewo (ibid., 185).

Transnational transport connections are to be developed between Frankfurt/Oder (DE) and Słubice (PL). In this context the roads between Kostrzyn nad Odrą – Łęknica (PL) along the border rivers and Frankfurt/Oder (DE) and Słubice (PL) as well as between Eisenhüttenstadt (DE) and Kłopot are to be modernized or built (ibid., 188). Additionally, cheap cross-border rail lines are to be created from Frankfurt/Oder (DE) across borders (ibid., 188).

Also a new bridge is to be established in the North of Kostrzyn nad Odrą to link the German and Polish roads and separate the transit transport from local transport. Additionally, the German national road B1 shall be expanded from the Polish border to Berlin to reduce congestions (ibid., 189).

The regional bicycle paths of Lubuskie are to be connected to the German bicycle paths in the vicinity of Guben/Gubin and Frankfurt/Oder- Słubice. Between Nowy Lubusz (PL) and Lebus (DE) a ferry shall connect the bicycle paths (ibid., 185f.).

Between Frankfurt/Oder (DE) and Słubice (PL) a cross-border public transport offer shall be developed. A bus line shall be started which might be replaced by a tram in the future. Additionally, a pedestrian and bicycle bridge across the Oder river is to be constructed. Furthermore, the road transport shall be managed on the basis of a common cross-border concept (ibid., 186).

The national and voivodeship roads as well as the railroads which lead to the German border are to be modernized (ibid., 215ff.).

Plans for the development of sustainable public transport are to be established across borders (ibid., 219).

# Polish Partnership Agreement 2014-2020 (2015)

Missing links and different infrastructure standards are said to hamper the cross-border passenger and freight transport between the Member States. Especially the infrastructure in Eastern Poland and its neighbouring countries is said to need to be enhanced with a coherent transport infrastructure (Ministerstwo Rozwoju Polska 2015, 32). The Polish transport infrastructure shall be developed according to the EU TEN-T technical standards. In the funding period 2014-2020 the investment focus shall be laid on the TEN-T roads and railroads according to the core network corridor work plans of the Baltic Adriatic and the North Sea Baltic Sea corridor. Bottlenecks at the national borders are to be removed. Therewith the cross-border transport shall become more effective and coherent between the Polish and important European cities (ibid., 122).

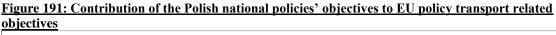
The Strategy for Energy Security and the Environment – 2020 perspective (2014) (*Strategia bezpieczeństwo energetyczne i środowisko – perspektywa do roku 2020*) does neither relate to cross-border transport nor the TEN-T.

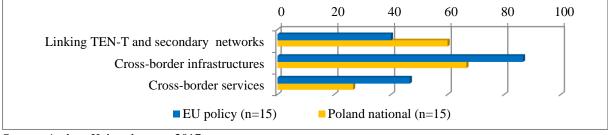
# National Road Construction Programme 2014-2023 (2015) (*Program Budowy Dróg Krajowych na lata 2014-2023*)

The national road construction programme refers to the national TDS 2020 and shall contribute to the implementation of the policy's aims. Among others, the national roads shall be integrated in the European TEN-T network (Ministerstwo Infrastruktury i Budownictwa Polska 2015, 27f.). The Polish parts of the TEN-T network shall be completed, expanded and bottlenecks in the road infrastructure are to be reduced. The Baltic Adriatic and the North Sea Baltic core network corridors are considered to have a high relevance for cross-border connections and long distance connections (ibid., 16f.,23). Furthermore, the programme aims at minimizing disparities between the Polish and the EU-15 countries' transport infrastructure among others with the help of EU funds (ibid., 31). The economic development of Poland shall benefit from investments in a better road-infrastructural connection to the neighbouring Member States (ibid., 33).

#### National Railway Programme until 2023 (2016) (Krajowy Program Kolejowy do 2023 roku)

The programme refers to the NSDC and the NSRD and the Europe 2020 strategy. In this context it also refers to the aim of modernizing infrastructure in order to facilitate cross-border freight transport. Furthermore, the international accessibility of Polish cities is to be improved (Minister Infrastruktury i Budownictwa 2016, 15ff.). International relations are to be improved by investments in transport infrastructure (ibid., 19). Especially, the efficiency of rail transport is to be enhanced including the TEN-T core and comprehensive network (ibid., 22). It evaluates the Baltic Adriatic Corridor to be of high relevance for regional and international passenger and freight transport (ibid., appendix 5, page 5).





Source: Author, Kaiserslautern, 2017.

### Concrete cross-border transport-related projects defined in the Polish national policy documents Motorways

- Upgrade national road DK24 to high speed road from Kostrzyn nad Odra (PL), at the German border, and connected to the existing high speed road S3 in Gorzów (IPPON)
- Expansion DK32 between Gubin at the German border, Krosno Odrzańskie and Zielona Góra. Modernization of voivodeship roads 286 and 138 between Gubin and Biecz respectively Maszewo
- Modernization and establishment of between Kostrzyn nad Odrą Łęknica (PL) along the border rivers and Frankfurt/Oder (DE) and Shubice (PL) as well as between Eisenhüttenstadt (DE) and Kłopot (IPPON)
- Establishment new bridge in the North of Kostrzyn nad Odrą to link the German and Polish roads (IPPON)
- Expansion German national road B1 from the Polish border to Berlin (IPPON)
- Establishment of roads between Zielona Gora and Gorzow to Berlin (NSRD 2010)
- Completion of motorway A2 close to Swiecko (NRCP 2011)

Rail

- Modernization and electrification of the Polish rail line 203 from Krzyż Kostrzyn (PL) to the German border (IPPON)
- Modernization and electrification of the railway line between Berlin (DE) and Kostrzyn nad Odrą, Gorzów.and Piła (PL) (IPPON)
- Modernization of rail line 358 between Guben (DE), Gubin, Krosno Odrzańskie, Czerwieńsk and Zielona Góra (IPPON)
- Establishment of railroads between Zielona Gora and Gorzow to Berlin (NSRD 2010)

#### Inland waterways

• Connection of the Oder river to the Spree (NSDC 2012)

#### **Bicycle**

- Linkage of paths between Guben/Gubin and Frankfurt/Oder- Shubice (IPPON)
- New Ferry between Nowy Lubusz (PL) and Lebus (DE) shall connect the bicycle paths (IPPON)
- New pedestrian/bicycle bridge between Frankfurt/Oder (DE) and Słubice (PL) (IPPON)

Services

- New bus line between Frankfurt/Oder (DE) and Słubice (PL) (IPPON)
- More rail service connections between Tczew, Kostrzyn (PL) to Küstrin-Kietz (DE) (IPPON)
- Reestablishment of rail line 275 between Guben (DE), Gubinek, Lubsko, Jasień and Żagań (PL) (IPPON)
- Establishment of a new rail connection between Zielona Góra, Gubin (PL) and Cottbus (DE) (IPPON)

# <u>Regional level</u>

#### Entwicklungsstrategie Westpolens 2020 (2014)

The strategy aims at enhancing the external accessibility of Western Poland (Ministerstwo Infrastruktury i Rozwoju Polska 2014, 11) especially to European hubs like Berlin (ibid., 57). Also the North-South transport connections are to be expanded (ibid., 57). The Oder river is to be integrated to the European inland waterway network. Also the cross-border cooperation across the river is to be increased (ibid., 61f.). The intensification of cross-border cooperation is to be promoted in general (ibid., 56).

# Transport Development Strategie of the Lubuskie Region (2004) (*Strategia Rozwoju Transportu Województwa Lubuskiego do roku 2015*)

The strategy describes the existing challenges in international and cross-border rail freight transport because of different technical and operational systems as well as economic disparities between the old and new Member States. Also the road transport infrastructure is said to be challenged – among others because of the growing cross-border freight transport on the road (Województwo Lubuskie 2004, 36,88).

The document describes the four existing rail border crossings to Germany in Rzepin (Kunowice) (PL) –Frankfurt/Oder (DE), Gubin(PL) – Guben (DE), Tuplice (PL) – Forst (DE) and between Kostrzyń (PL) and Küstrin-Kietz (DE). The latter three are only open for freight transport whereas the first connection is also available for passenger transport (ibid., 102). Besides that the strategy aims at increasing the usage of the existing railway connections between Brandenburg und Lubuskie (ibid., 143). Furthermore, the regional road network is to be coordinated with the international infrastructure. Cross-border road and rail transport flows are to be taken into account when planning the regional infrastructures. Additionally, the TEN-T network should be accessible from the regional road network. Also the regional inland waterways are to be connected efficiently to the European network. Especially the Oder inland waterway shall be modernized based on a bilateral German-Polish and an international agreement. In this context bridges are to be reconstructed and the river should be added to the European and international transport waterway network (ibid., 144). In addition to that the information on the public bus transport offer – including connections across the national border - is to be improved (ibid., 146). Additionally, the regional transport nodes should be connected to the national, German and European transport system (ibid., 177).

### Regional Operational Programme Lubuskie 2007-2013 (2007)

The removal of bottlenecks between existing and planned road connections in Lubuskie shall contribute to the implementation of the TEN-T (European Commission 2017b). In general the transport accessibility of the region is to be enhanced (Management Board of Lubuskie Province 2007, 15). The transport infrastructure at the national borders needs to be improved in Gubinek, Gubin, Kostrzyn, Świecko and Słubice. The technical standards of the EU shall be implemented on the roads of Lubuskie (ibid., 16). The railway line 203 between Krzyż, Grozów and Kostrzyn at the German border is to be modernized to reduce the travel time (Ministerium für Infrastruktur und Entwicklung Polen 2014, 189). The Oder waterway shall be renovated according to EU requirements in order to become an important European transport axis (Management Board of Lubuskie Province 2007, 20).

The policy refers to the Lubuskie Transport Development Strategy of Lubuskie until 2015 and aims at contributing to the implementation of some of its objectives (ibid., 88).

Besides that the document refers to the importance of the two Euroregions *Spree-Neisse-Bober* and *Pro Europa Viadrina* that are situated on its territory for the involvement of Polish and German citizens in cross-border cooperation (ibid., 31). Additionally it relates to the ETC, respectively PHARE programme for pre-accession countries, and underlines its importance for the funding of transport infrastructure for the earlier funding period (ibid., 59)

# Revised Lubuskie Voivodeship Spatial Management Plan (LVSMP) (2012) (Planu Zagospodarowania Przestrzennego Województwa Lubuskiego 2014-2017)

According to the plan Lubuskie has a strategic position for the Polish relations, including those of Polish cities outside the region, to Germany (Sejmiku Województwa Lubuskiego 2012, 17)

The cross-border cooperation in the Euroregions Pro Europa Viadrina and Spree-Neisse-Bober shall be maintained. Furthermore, the development of the Central European Transport Corridor is to be supported. The spatial development should be based among others on the East-West Pan-European Transport Corridors II and III. The railway line between Miłkowice, Żagań, Żary (PL) and Forst (DE) is to be modernized as a priority (Ministerium für Infrastruktur und Entwicklung Polen 2014, 128f.). The high speed rail axis between Warsaw via Lodz, Kalisz, Wroclaw, Poznan to Berlin is to be established that will cross Lubuskie as well. The track between Poznan and Berlin is to be modernized i order to increase the travel speed to 200km/h (Sejmiku Województwa Lubuskiego 2012, 31).

More cross-border transport connections are to be offered to promote both, the local and the touristic transport (Ministerium für Infrastruktur und Entwicklung Polen 2014, 210).

The LVSMP aims at strengthening the transport system (ibid., 157). The border cities Kostrzyn nad Odrą and Słubice are considered as important transport nodes. A touristic road is to be established at the Oder and Neisse river (ibid., 177). In general a higher cross-border mobility is promoted in the border cities Żary, Żagań, Gubin and Slubice (Sejmiku Województwa Lubuskiego 2012, 31).

Also the usage of waterways for transport purposes shall be improved among others to Berlin (ibid., 14). The navigability of the Oder waterway and the whole E30 waterway shall be improved. It is supposed to focus on the port of Kostrzyn (ibid., 327).

# Regional Operational Programme Lubuskie 2014-2020 (2015)

The programme refers to the North Sea Baltic and Baltic Adriatic core network corridors which cross Lubuskie (Zarządu Województwa Lubuskiego 2015, 25). Besides that it aims at implementing the Central European Transport Corridor which connects the Swedish region Skane to Greece via Lubuskie to increase its external and internal accessibility (ibid., 25). This corridor, however, does not contain connections between Germany and Poland. Still it is argued that the improvement of this track would benefit the spatial and functional integration of the German-Polish cross-border region (ibid., 25).

Transport is one of the priorities of the Operational Programme. Investments in the transport infrastructure shall contribute to the development of supraregional transport connections in relation to the TEN-T and the internal cohesion within the region and make it more attractive (ibid., 82).

# Plan for a sustainable development of public transport in Lubuskie (2015) (*Planu zrównoważorozwoju publicznego transportu zbiorowego na sieci komunikacyjnej w wojewódzkich przewozach pasażerskich*)

The plan depicts the railway lines in Lubuskie (see **Image 55**) including those which lead at the national border to Germany or cross it. Additionally, it refers to the TEN-T E20 rail corridor between Warsaw and Kunowice which concerns Lubuskie on the section between Zbąszynek, Rzepin (PL) and Frankfurt (Oder)(DE). This corridor is considered to be very important for Poland for both passenger and freight transport. The stop in Slubice at the German border was expanded. So far, the different train electricity standards of the two countries are said to have hampered the cross-border transport (Departamencie Infrastruktury i Komunikacji Urząd Marszałkowski Województwa Lubuskiego 2015, 56). It also refers to the other two TEN-T corridors. The infrastructures of these TEN-T tracks are to be improved to allow a higher travel speed. Missing cross-border links are to be established (ibid., 45).

It is proposed to establish a park&ride infrastructure in Swiebodzina which is located 80km away from the German border next to three fast roads and a railway station. However, no regional trains exist to Frankfurt (Oder), only a fast connection to Berlin (ibid., 119).

The rail track 358 between Czerwieńsk and Gubin at the Polish border is enhanced and shall be combined with the tracks CE-59 and E-20. The freight transport of the freight rail corridor 8 is to be moved to an alternative rail track (ibid., 47).

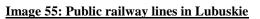
In general the connections to the larger cities in the neighbouring countries shall be expanded. Especially the connections between Zielona Góra and Gorzow to Berlin are to be improved (2015, 14,22).

The document refers to a cooperative analysis together with the German VBB in which German-Polish the following public transport connections across borders were analysed:

- Berlin Kostrzyn Gorzów Wlkp. Krzyż;
- Berlin Frankfurt (Oder) Rzepin Zielona Góra;
- Zielona Góra Guben Cottbus;

• Cottbus - Forst (Lausitz) - Żary - Żagań.





#### Source: ibid., 39.

The regional cross-border connections are to be coordinated better with the national ones. Missing rail service connections between the two regions are to be established to improve the offer on both sides of the borders (ibid., 140f.). The high prices of the connection between Kostrzyn (PL) and Küstrin-Kiez (DE) should be adapted more to the Polish prices and the Polish season tickets. The rail connection between Zielona Góra and Berlin is to be improved. In this context the Polish tracks are to be modernized to increase the connections' speed. The rail track and existing connections between Cottbus to Forst and from Forst to Żary are to be promoted. Additionally, a German-Polish cross-border ticket is to be installed. In 2009 it was proposed to redevelop the rail connections between Guben (DE) and Gubin (PL) in order to connect Gubin across borders to Cottbus (DE) (ibid., 142ff.).

# Transport development programme of Lubuskie (2016) (Program Rozwoju Transportu Województwa Lubuskiego)

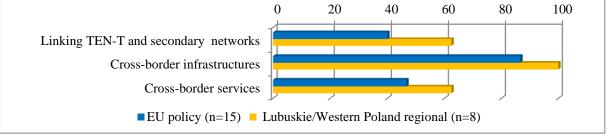
The development of a cross-border transport network is considered to be very important in order to integrate the cross-border region better in the EU and improve the connections to the TEN-T corridors. The cross-border mobility and logistics are to be enhanced and bottlenecks to be removed. Therewith the cross-border region shall become more attractive for both citizens and companies (Zarządu Województwa Lubuskiego 2016, 18f.). In this context the programme aims at modernizing the Oder waterway and increasing the cross-border cooperation concerning the Oder river. Therewith, the

connection to the European transport network shall be enhanced (ibid., 14). Additionally, investments in the national and express roads, including TEN-T tracks shall be taken to modernize them (ibid., 15).

Furthermore, the cross-border road connections to the neighbouring regions are to be strengthened (ibid., 15). Among others the North Sea Baltic Corridor on road E20 is mentioned which links Berlin, Frankfurt/Oder with Slubice, Swiebodzin, Zbaszynek and Poznan (ibid., 35). It is expected that the expansion of the motorway A2 between Berlin and Poznan until 2020 will contribute to a higher mobility of the citizens of Lubuskie and Brandenburg (ibid., 62f.).

The rail infrastructure across borders shall be maintained (ibid., 84). Additionally, the cross-border transport services are to be enhanced between border cities and larger centres and made more attractive. This shall lead to a reduction of the motorized individual transport. Further common actions shall reduce other environmental burdens caused by cross-border transport such as safety and traffic noise (ibid., 19). The transport investments' environmental impact across borders is to be checked efficiently. Additionally, measures to prevent these impacts are to be included (ibid., 142). It shall be invested more in modern rail vehicles and those necessary for the cross-border transport for Germany which can be run on both national systems (ibid., 108).

#### Figure 192: Contribution of the Polish regional objectives to EU policy transport related objectives



Source: Author, Kaiserslautern, 2017.

# Concrete cross-border transport-related projects defined in the Polish national policy documents motorways

- Modernization A2 Berlin –Poznan (PT 2016)
- Strengthening of E20 Berlin, Frankfurt/Oder with Slubice, Swiebodzin, Zbaszynek and Poznan (PT 2016)
- Higher efficiency between Berlin and Gorzow as well as Berlin and Zielona Gora (LVDS 2012)
- Improvement across borders in Gubinek, Gubin, Kostrzyn, Świecko and Słubice (OP 07-13)
- Upgrade motorway A18 which becomes the A15 in Germany and two roads leading to that motorway (road 27 from Zielona-Gora to Żary and road S3) (LVDS 2012)
- Upgrade A2 / (A12 in Germany) (LVDS 2012)
- Construction of bridge across the Oder river in Kostrzyn nad Odra to Küstrin-Kietz (LVDS 2012)
- Upgrade road 22 to Germany (LVDS 2012)

#### Railroads

- Higher efficiency between Berlin and Gorzow as well as Berlin and Zielona Gora (LVDS 2012)
- Improvement Zielona Gora Berlin, Modernization of Polish tracks (SRWL 2015)
- Improvement and combination of rail track 358 between Czerwieńsk and Gubin with CE-59 and E-20 (SRWL 2015)
- Promotion service connections Cottbus to Forst and from Forst to Żary (SRWL 2015),
- Modernization and expansion service connection between Miłkowice, Żagań, Żary (PL) and Forst (DE) (LVSMP 2012) (LVDS 2012)
- Redevelopment of service connections between (cottbus-) Guben (DE) and Gubin (PL) (SRWL 2015)
- Improvement service connections between Gorzow and Zielona Gora and Berlin (SRWL 2015)
- Improvement of tracks of E 20 between Zbąszynek, Rzepin (PL) and Frankfurt (Oder)(DE) (SRWL 2015)

- Improvement of service connections CE59 (No.273) connecting Głogów Zielona Góra and Kostrzyn (LVDS 2012)
- Improvement of service connections rail 203 Krzyz-Gorzów-Kostrzyn (LVDS 2012) (OP 07-13)
- Establishment high speed rail axis between Warsaw via Lodz, Kalisz, Wroclaw, Poznan to Berlin: modernization rail track between Poznan and Berlin (LVSMP 2012),
- Improvement of rail service connections between Gorzów and Zielona Góra (PL) to Berlin (DE) (LVDS 2012)

<u>P&R</u>

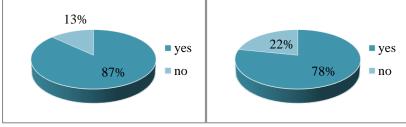
• Infrastructure in Swiebodzina (SRWL 2015)

Inland waterways

- Navigability and modernization of the Oder river as inland waterway E30 (PT 2016)(OP 07-13), focus on Kostrzyn Berlin (LVSMP 2012)(LVDS 2012)
- Modernization E-70 international waterway (Warta, Noteć rivers) (LVDS 2012)

#### Polish policy objectives - overview

Figure 193: Relation of the Polish policies to cross-border transport (left) and the TEN-T (right) (n=23)

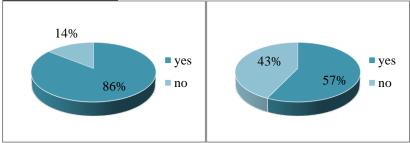


Source: Author, Kaiserslautern, 2017.

Cross-border cooperation policy documents

Transnational level

Figure 194: Relation of the transnational cross-border policies to cross-border transport (left) and the TEN-T (right) (n=7)



Source: Author, Kaiserslautern, 2017.

# Weißbuch Öffentliche Personenverkehre zwischen dem Verkehrsverbund Berlin-Brandenburg und Westpolen – Zukunft haben wir nur gemeinsam (2011)

The White Paper aims at removing further missing links between the public transport of Berlin and Brandenburg to Western Poland and expanding the existing connections (Verkehrsverbund Berlin-Brandenburg, 1). Direct connections between Berlin and Gorzow shall be established. Therefore the domestic locomotives shall receive a permission to drive on the other side of the border. Furthermore, the speed shall be increased through infrastructure investments (ibid., 38).





More rail connections between Berlin and Poznan via Frankfurt/Oder shall be offered per day. However, the Polish central government does not support the expansion of the number of connections (ibid., 42). The connection Berlin – Zielona Gora via Frankfurt/Oder has to be made more attractive with a better schedule and tariffs. The change of trains shall be optimized. Additionally, the connection between Cottbus-Guben and Zielona Gora shall be revitalized (ibid., 47f.). The number and speed of direct connections between Berlin – Cottbus and Wroclaw has to be increased through an infrastructure upgrade. Parts of the track need to be electrified which is said to be relevant for both freight and passenger transport. With a better rail connection the road could be relieved with environmental benefits. Polish and German stakeholders need to come to a consensus (ibid., 50ff.). Another important project is the expansion of bilingual travel information on both sides of the border (ibid., 61f.).

Also the cross-border infrastructure for freight transport shall be expanded to become more competitive compared to the road. Logistical hubs for intermodal transport shall be developed as well as freight corridors further equipped (ibid., 68). With these investments the freight and passenger transport system between Poland and Germany shall become more sustainable, environmentally friendly and efficient.  $CO_2$  emissions are to be minimized and the transport system shall become safer (ibid., 74).

#### Macroregional Transport Action Plan (MTAP) by TransBaltic (2012)

The interoperability of the freight transport networks and logistic hubs in the Baltic Sea Region shall be improved and made more sustainable (TransBaltic 2012, 3). Also cross-border sections are to be improved (ibid., 13). Transnational transport corridors are to be developed which connect the region and subregions (ibid., 4). The region shall additionally connect its transport network to other non-EU countries like Russia and in Asia as well as other European macro-regions to improve its external accessibility (ibid., 5 and 12). Transport planning across border shall be coordinated (ibid., 6). The

Source: ibid., 40, own editing, 2016.

implementation of the TEN-T shall be enhanced. The importance of sea ports for the TEN-T shall be promoted (ibid., 15).

# Action Programme on the Development of the Scandria Corridor (2012)

The speed of connections is to be increased across borders. Signalling and safety standards are to be harmonized across borders. Cross-border passenger transport shall be facilitated by a coordination of timetables and ticketing (SCANDRIA 2012a, 5).

# Action Plan for the European Union Strategy for the Baltic Sea Region (2015)

The Baltic Sea Macro-Regional Strategy was launched in 2009 as the first European macro-regional strategy. One of the three pillars aims at connecting the Baltic Sea region better. It thereby also relates to the transport development. In 2015 a new action plan was developed to implement the strategy. Also the action plan in the field of the policy area 'transport' was updated in 2016 (Interview Erlandson 2016).

One of the Baltic Sea Region's strategy's overall objectives is to 'Connect the Region' (European Commission 2015b, 7ff.). The internal and external accessibility shall be improved. The TEN-Ts crossing the region shall be implemented including the core and comprehensive network (ibid., 46). Preparatory studies for the development of TEN-T sections and infrastructure shall be renewed. Cross-border infrastructure is to be improved particularly. Regional initiatives on the removal of bottlenecks are to be supported (ibid., 143ff.). Missing links shall be established. Also connections to Russia and other non-European countries shall be enhanced (ibid., 42f.).The exchange of experiences and best practices to minimize the environmental burden of shipping between stakeholders from different countries shall contribute to a coordinated transport development and planning (ibid., 131f. and 144).

# Abkommen über die gemeinsame Verbesserung der Situation an den Wasserstraßen im deutschpolnischen Grenzgebiet (2015)

Bottlenecks on the inland waterways between Germany and Poland shall be commonly removed to increase the navigability of the rivers. The countries implement the needed actions in their respective parts of the rivers in most cases. However, they shall coordinate their measures across borders (art.3).

#### EUSBSR Policy Area Transport Action Plan – Coordination Group final proposal (2016)

The different Member States and their domestic levels shall be coordinated in a multi-level governance framework to cooperate and develop common strategies, priorities, transport planning and investments. This shall support the coordination of transport planning and the implementation of policies. Logistical platforms shall be shared across borders. Cross-border traffic shall be coordinated to minimize the needed vehicles,  $CO_2$  emissions, environmental pollution and congestion. It shall become more efficient. The cross-border sections of the TEN-T and other transnational transport axes shall be enhanced to increase the interoperability. Furthermore, the TEN-Ts shall be better connected to the regional and local levels of the region (EUSBSR Policy Area Transport Action Plan – Coordination Group 2016, 1f.). Furthermore, the provision of transport travel information and ticketing across-borders shall be developed. In general, the user-friendliness shall be enlarged (ibid., 5).

The actions under the TEN-T framework are to be complemented but not duplicated. It should be made use of the crossing of the three TEN-T corridors. Their infrastructures should be extended to the whole region and add internal links, especially in more remote areas. Secondary and tertiary networks shall be developed (ibid., 3f.). In general a good transport system is to be established across borders (ibid., 5).

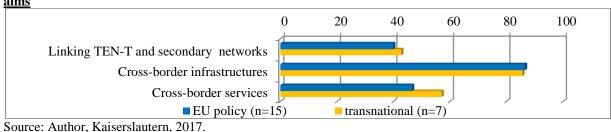


Figure 195: Contribution of the cross-border transnationall policies' aims to EU policy transport related <u>aims</u>

#### Concrete cross-border transport-related projects defined in the transnational policy documents

- Direct +faster rail service connections between Berlin and Gorzow shall be established (WÖPNV 2011)
- more connections/day between Berlin and Poznan via Frankfurt/Oder (WÖPNV 2011)
- revitalization of the connection between Cottbus-Guben and Zielona Gora (WÖPNV 2011)
- infrastructure upgrade (incl. Electrification of parts) of rail connection between Berlin Cottbus and
- Wroclaw + more and faster connections (WÖPNV 2011)

#### Cross-border local:

#### Entwicklungs- und Handlungskonzept der Euroregion Spree-Neisse-Bober 2007-2013 (2006)

The integration of the Euroregion into supraregional and European infrastructure networks is to be improved which shall contribute to the economic development of the cross-border region. Therefore the expansion of supraregional but also cross-border transport infrastructures, for the internal accessibility, was defined as a development aim. The infrastructural conditions are to be improved (Euroregion Spree - Neiße - Bober 2006, 117f. and 125). North-South road connections within the German and Polish part are to be enhanced. Cross-border rail connections shall be expanded between Berlin-Forst-Zary-Wroclaw as well as Cottbus and Zielona Gora. Cross-border bridges are to be established which shall support the internal transport within the cross-border region. Furthermore, transport and hiking trails shall be interlinked across the border (ibid., 125).

#### Integriertes Verkehrskonzept Euroregion Pro Europa Viadrina (2008)

The bottlenecks of the TEN-T corridors which cross the region shall be removed (IPG Potsdam 2008, 16). Furthermore, the accessibility of the cross-border region and its centres to the TEN-Ts shall be improved. Other cross-border transport barriers in the internal accessibility shall be removed. Public transport across border should be coordinated and made more attractive and viable by taking into account the demand when designing the offer (ibid., 16). Among other the transport connections between Berlin and Warszaw; Szeczecin, Poznan and Wroclaw as well as between Zielona Gora and Cottbus shall be promoted. Besides that also the connections between Gorzow Wielkopolskie and Frankfurt/Oder shall be enhanced (ibid., 18). In general the exchange of experiences and better coordination of transport planning on both sides of the borders shall be promoted (ibid., 18).

The document defines a high number of infrastructure and service connections which shall be upgraded and expanded within the cross-border region. Not all of them focus on direct cross-border transport. Instead it is a list of transport projects to be implemented on the whole territory of the cross-border region (ibid., 19ff.). Public transport concepts are to be developed in subregions across borders. Ferries and pedestrian bridges shall be established to link border municipalities. Besides that bicycle paths shall be established (ibid., 19ff.)).

# Ergebnisse der grenzüberschreitenden Zusammenarbeit auf dem Gebiet der Raumplanung und der Verkehrsinfrastruktur (2008)

The study shall help to coordinate the transport development across borders and defines priority projects for the Polish-German cross-border transport and the region's accessibility. In general, secondary and

tertiary transport infrastructures (i.e. regional and local transport networks) are to be expanded and mutually interconnected in the vicinity of transnational European transport networks to strengthen the overall regional development (Gemeinsame Landesplanungsabteilung Berlin-Brandenburg 2008, 5f.). The quality of cross-border connections is to be improved. Especially public rail transport shall be enhanced to make them become an attractive alternative for road transport. In this respect the transport services shall be coordinated better, information on connections should be easily accessible in two languages and a common ticketing system should be developed. Additionally, the number of public transport connections per day is to be increased. Also the usage of the waterways between Berlin and Szczecin shall be enhanced. It is recommended to coordinate the development of fast rail network connections between the large metropolitan regions in the Polish- German border region (ibid., 8).

Eight prioritized projects for the transport development of Lubuskie and Brandenburg were defined see list below) (ibid., 7). In the Euroregion Pro Europa Viadrina the connections between the metropolitan regions and external centres shall be improved. Furthermore, the *Oberzentren* Gorzow and Frankfurt/Oder shall be better connected. Besides that an exchange of experiences and practices across borders shall be facilitated. Roads and railroads shall be expanded and the public transport offer shall be coordinated to develop an interregional transport system (ibid., 11). In the Euroregion Spree-Neisse-Bober especially the cross-border infrastructure close to the Neisse river shall be improved. The connection between Zielona-Gora and Cottbus shall be developed as central axis for a regional transport network. Common transport services shall be established which are to be communicated bilingually (ibid., 12)

In total the cooperation between Poland and Germany in the transport sector shall make the area more competitive. Therefore a communication platform for cooperation and coordination in the field of transport development and spatial planning shall be established. Investments in transport infrastructure should be coordinated. Therefore a database with project proposals shall be developed, lobbying activities shall be expanded and EU funds to be acquired. Also other measures to minimize travel times and increase the accessibility shall be fostered (ibid., 13).

#### Entwicklungs- und Handlungskonzept "Viadrina 2007" (2006)

The common infrastructure of the cross-border region shall be supported. Among others, cross-border transport connections shall be developed. Furthermore, enterprises shall be better connected to the cross-border transport infrastructure (Euroregion PRO EUROPA VIADRINA 2006, 29). The external and internal accessibility shall be improved (ibid., 31). Logistical hubs shall be established at the border which facilitate the change and intermodality of transport modes. Information and exchange events shall be established in the field of transport to facilitate communication across the border (ibid., 31).

# Grenzüberschreitendes Entwicklungs- und Handlungskonzept der Euroregion Spree-Neiße-Bober 2014-2020 (2013)

Under the development aim 'Securing the public provision of services' which shall contribute to the further integration of the Euroregion, the action field 'accessibility and transport' was defined (INFRASTRUKTUR & UMWELT and Lubuski Instytut Badan i Innowacji 2013, 68f.).

The transport infrastructure within the cross-border region needs to be improved especially concerning rail and public transport. The infrastructure and services need to be expanded to contribute to a higher mobility. Additionally, the cross-border freight transport needs to be managed (ibid., 74f.). The *Kreise* and municipalities located directly at the border shall mutually connect the existing public transport offer on both sides of the border. Infrastructure bottlenecks are to be removed. A common bicycle concept is to be developed across borders, train stations are to be renovated and the rail tracks are to be

modernized. Additionally, the services need to be improved by investing in new vehicles and common timetables, information and marketing (ibid., 99f.).

# Entwicklungs- und Handlungkonzept "Viadrina 2014" der Euroregion PRO EUROPA VIADRINA (2013)

The cross-border transport infrastructure needs to be expanded because of growing transit traffic prognoses (Euroregion PRO EUROPA VIADRINA 2013, 31). The railway and road system needs to be further expanded. The roads shall be relieved from the commuter traffic (ibid., 31ff.). The infrastructure of the cross-border regions shall be connected better to the TEN-T corridor crossing the region. Additionally, the internal interregional infrastructure shall be enhanced. An exchange of experiences on both sides of the borders shall contribute to a better regional transport development (ibid., 33). Cross-border spatial and urban planning shall be developed. Exchange of practices e.g. in the field of transport shall be fostered in workshops. Cross-border studies, concepts and feasibility studies can be conducted. Bottlenecks in the cross-border transport system are to be removed (ibid., 47 and 50f.).

# AVerON (2015)

The document defines needs for action for the transport development of the Polish-German border region (AVerON 2015, 1). The North Sea Baltic TEN-T corridor is considered to be of utmost importance for the economic development of the region (ibid., 2). The connection to the TEN-T shall be supported to benefit from economic impetus (ibid., 3). Inland waterways are to be expanded, also being part of the TEN-T network, to increase the navigability (ibid., 8).

Cross-border concepts shall be developed to better steer the high heavy goods traffic crossing the region (ibid., 5). Different qualities of local and regional roads in both countries need to be taken into account in cross-border planning (ibid., 5).

The cross-border rail network shall be further expanded and electrified to develop new long-distance rail lines (ibid., 6). Also the regional transport offer shall be increased. However, several challenges exist because of the different electricity standards. Therefore new expensive vehicles need to be bought or trains have to be changed at the border (ibid., 7).

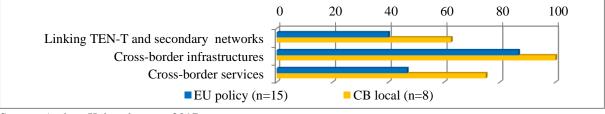
The Euroregion PRO EUROPA VIADRINA aims at enhancing the connection between Berlin – Frankfurt/Oder – Slubice - Poznan by expanding highways and establishing more interfaces to regional roads to increase the accessibility. A bus line could be established between Gorzow and Frankfurt/Oder. Furthermore, the long-distance passenger rail transport shall increase the offer and shall be better coordinated with the regional transport offer. Common tariffs should be developed. Also rail freight transport shall increase its capacities because of growing freight traffic (ibid., 12f.). The rail connection between Berlin – Kostrzyn – Gorzow Wielkopolski – Krzyz shall be further expanded with a second track and electrification for freight and passenger transport. Furthermore, direct train connections with a higher capacity should be established between Berlin and Gorzow (ibid., 13). The industrial sites Eisenhüttenstadt and Kostrzyn shall be connected better to the supraregional road system. New bridges might be established. Additionally, the locks of the Spree-Oder waterway in the vicinity of Eisenhüttenstadt should be expanded (ibid., 13).

The Euroregion Spree-Neisse-Bober wants to establish additional train connections between Berlin and Wroclaw crossing either Cottbus or Zielona Gora. Furthermore, the infrastructure is to be expanded in several sections. The rail connection between Cottbus and Forst shall be electrified. A cross-border planning concept is to be established for the development of the revitalization of the connection between Forst – Zary – Legnica. Also the road connection between Berlin and Wroclaw shall be expanded in certain sections. Between Cottbus and Zielona Gora as well as between Guben and Zielona Gora the

passenger transport shall be revitalized. Concepts for direct train and bus lines are to be developed (ibid., 14f.). Bicycle roads shall be expanded for the daily transport and touristic purposes (ibid., 20).

In general, public transport shall become more attractive by developing a common passenger information system. Timetables should be coordinated better and common tariffs are to be established. This shall be promoted by a common marketing strategy. Studies shall be conducted to find out more about the needs of commuters and develop individual transport offers. Cross-border local traffic plans could be established to better coordinate the offer (ibid., 19). Furthermore, models for the financing of cross-border public transport projects shall be developed (ibid., 24). The cross-border cooperation between the Polish and German border regions should coordinate the Polish and German plans and priorities to commonly influence the investments decisions of the national levels (ibid., 22).





Source: Author, Kaiserslautern, 2017.

#### *Concrete cross-border transport-related projects defined in the cross-border local policy documents* Public transport:

- Cross-border rail connections shall be expanded between Berlin-Forst-Zary-Wroclaw as well as Cottbus and Zielona Gora (EHK ESNB 2006)
- Public transport connections between Gorzow Wielkopolskie and Frankfurt/Oder shall be enhanced (IVK Viadrina 2008)
- develop a rail connection to link the region to a transnational connection between Berlin-Warsaw-Moskow. (IVK ESNB 2008)
- bus line between Guben and Zielona Gora shall be established (IVK ESNB 2008)
- maintain long-distance rail connection between Berlin and Wroclaw (IVK ESNB 2008)
- extension of the rail connection between Zagań Zary (PL) Forst (Lausitz) and Cottbus (DE) (IVK ESNB 2008)
- extension of the bus line Krosno Odrz Gubin (PL) to Guben (DE) rail station. (IVK ESNB 2008)
- Prolongation of bus connections across the border between Zary, Lubusko and Gubin to Guben; Zielona Góra, Nowogród Bobrz, Lubsko to Forst; Gubin and Mielno to Forst and between Mielno and Gubin to Guben(IVK ESNB 2008)
- Common urban bus transport between Guben (DE) and Gubin (PL)(IVK ESNB 2008)
- Introduction of two additional long distance rail connections between Berlin Cottbus (DE) and Wroclaw (IVK ESNB 2008)
- expansion of the rail connection *Ostbahn* from Berlin via Küstrin (Brandenburg) to Gdansk (Ergebnisse 2008)
- Establishment of Common transport services between Zielona-Gora and Cottbus (Ergebnisse 2008)
- A bus line be established between Gorzow and Frankfurt/Oder. (AVerON)
- Establishment of direct train connections with a higher capacity between Berlin and Gorzow (AVerON)
- additional train connections between Berlin and Wroclaw crossing either Cottbus or Zielona Gora (AVerON)
- between Cottbus and Zielona Gora and between Guben and Zielona Gora passenger transport shall be revitalized (AVerON)
- Development of a new bus connection and later a tram connection between Frankfurt/Oder and Slubice (IVK Viadrina)
- Enhanced rail transport between Gorzow, Kostrzyn, Frankfurt/Oder together with a linkage of this connection via Cottbus to Dresden and via Krzyz to Poznan. (IVK Viadrina)

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- Extension of the track Krzyz Gorzow Wlkp. Kostrzyn (PL) Strausberg Berlin Ostkreuz for a minimum speed of 120 km/h, with double-tracked infrastructure, modernisation of train stations (IVK Viadrina 2008)
- Enhancement of the rail infrastructure at the boder between Forst (DE)– Zasieki (PL): ensure 120km/h (IVK ESNB 2008)
- Enhancement of the track (Zielona Góra )Czerwieńsk Gubin (PL)/Guben (DE) (IVK ESNB 2008)
- Expansion of the rail network between Berlin Cottbus (DE) to Wroclaw and Szczecin (PL) (Ergebnisse 2008)
- Rail connection between Cottbus and Forst shall be electrified (AVerON)
- Further expansion of the rail connection between Berlin Kostrzyn Gorzow Wielkopolski Krzyz with a second track and electrification for freight and passenger transport. (AVerON)
- More direct rail transport services between Berlin Gorzow Wlkp. Und Frankfurt/Oder Zielona Gora), (IVK Viadrina 2008)
- Increase the travel speed at the border section Küstrin-Kietz (DE) Kostrzyn (PL), renovation of the Oder bridge (IVK Viadrina 2008)

#### Road:

- Completion of the motorway A12 / A2 Berliner Ring Frankfurt (Oder) (DE) Poznan Warszawa (PL) (Teilstrecken Swiecko Nowy Tomysl, Strykow Warszawa), (IVK Viadrina 2008)
- Increase the efficiency of the road B1 / N22 close to Kostrzyn (PL) (new Oder bridge). Establishment of bypasses at the N22 (Slonsk, Krzeszyce) (IVK Viadrina 2008)
- Expansion of the road connection between Szczecin Chojna / Mysliborsz Kostrzyn Slubice (N31), (IVK Viadrina 2008)
- Expansion of the S3 between Zielona Gora Gorzów (Lubuskie) and the connection to Szeczin Swinoujscie (Ergebnisse 2008)
- Expansion of the A2 from Swiecko Nowy Tomysl in Lubuskie (close to the German border near Frankfurt/Oder) (Ergebnisse 2008)
- Expansion of S3 (Ergebnisse 2008)
- Completion of the Oder-Lausitz route(Ergebnisse 2008)
- Establishment of a road connection north of Eisenhüttenstadt (Ergebnisse 2008)
- Expansion of the A18 at the border in Forst (Brandenburg) to Boleslawiec, being a bottleneck between Berlin Cottbus and Wroclaw. (Ergebnisse 2008)
- enhancing the connection between Berlin Frankfurt/Oder Slubice Poznan by expanding highways and establishing more interfaces to regional roads to increase the accessibility. (AVerON)
- road connection between Berlin and Wroclaw shall be expanded in certain sections (AVerON)
- Expansion W134 Rzepin Urad, development of a new cross-border bridge across the Oder river (IVK Viadrina)
- Expansion L371 to the B112 close to Eisenhüttenstadt (IVK Viadrina)
- New cross-border bridge across the Neisse river between Coschen and Zytowan (IVK Viadrina)

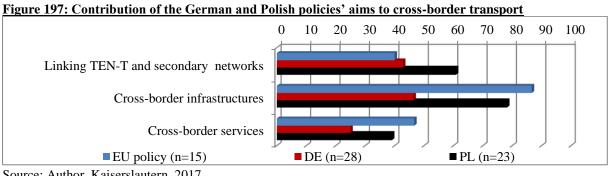
Waterways

- Expansion of the locks of the Spree-Oder waterway in the vicinity of Eisenhüttenstadt (AVerON)
- Ferry Kienitz Porzecze (IVK Viadrina)
- Ferry Lebus Gorzyca (IVK Viadrina)
- Ferry Ratzdorf Kosarzyn (IVK Viadrina)

#### Soft mobility

• Bicycle + pedestrian bridge between Stara Rudnica-Neurüdnitz (IVK Viadrina)



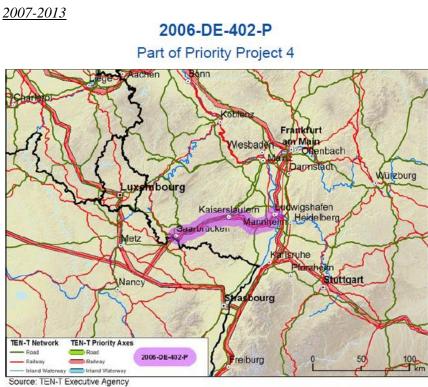


Source: Author, Kaiserslautern, 2017.

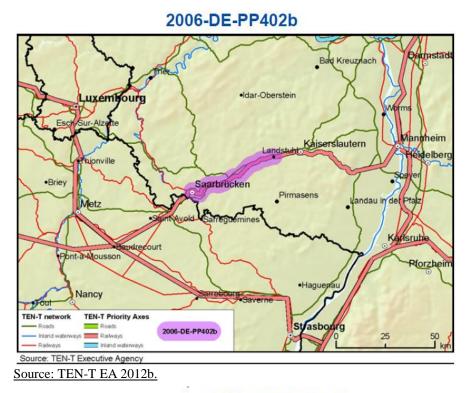
#### X.3.2 Practical influence on cross-border transport – facilitated projects and initiatives since 2007

**Greater Region** X.3.2.1

TEN-T

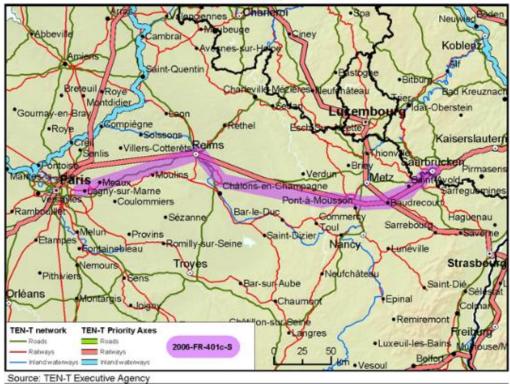


Source: TEN-T EA 2011c.

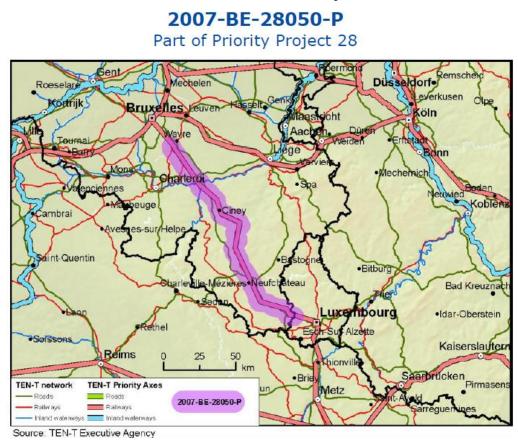






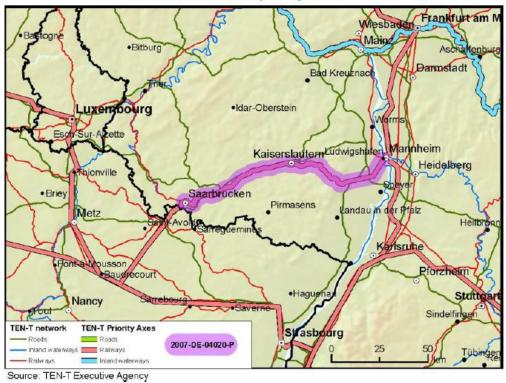


Source: TEN-T EA 2011b.

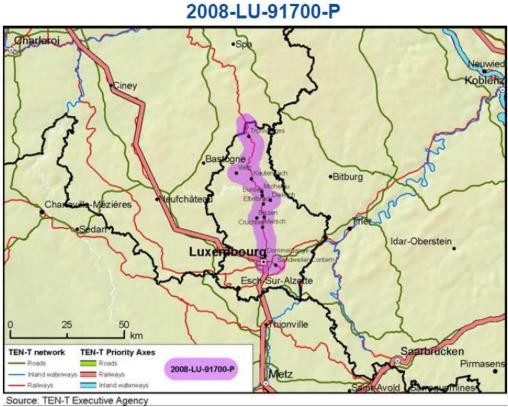


Source: TEN-T EA 2014b.

# 2007-DE-04020-P Part of Priority Project 4

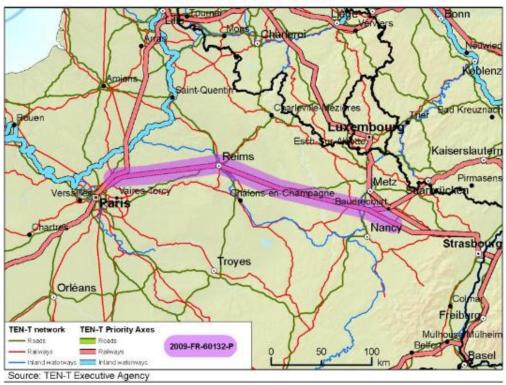


Source: TEN-T EA 2014i.

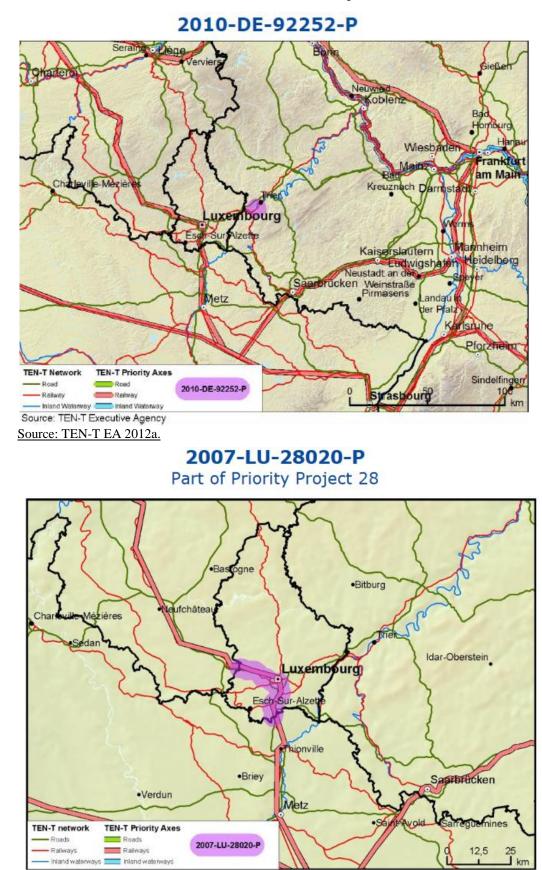


Source: TEN-T EA 2011a.

2009-FR-60132-P



Source: TEN-T EA 2015c.

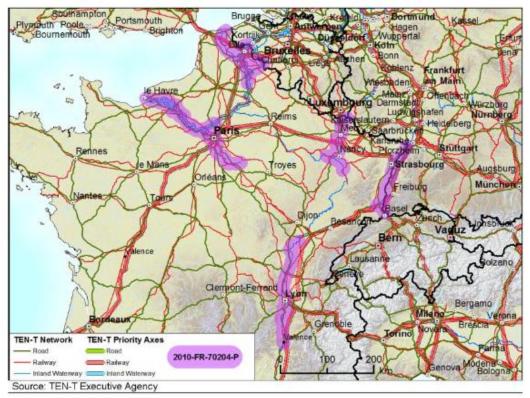


Source: TEN-T Executive Agency Source: TEN-T EA 2014c.

Inland waterways \_\_\_\_\_ Inland waterways

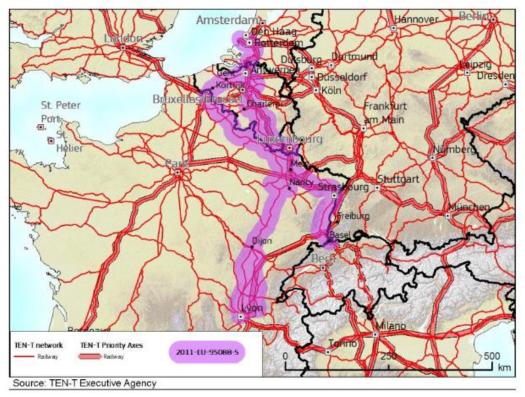
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# 2010-FR-70204-P

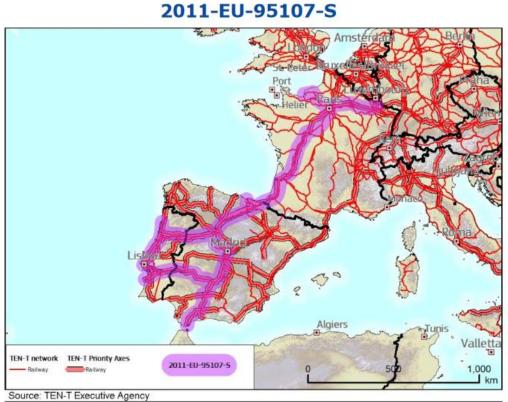


Source: TEN-T EA 2014e.

# 2011-EU-95088-S

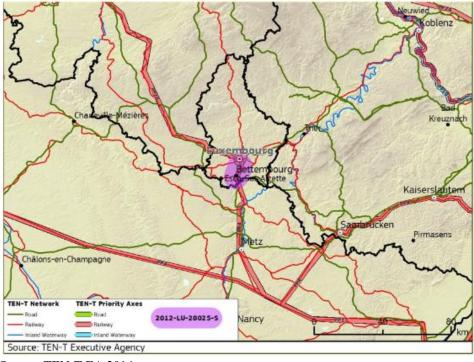


Source: TEN-T EA 2014h

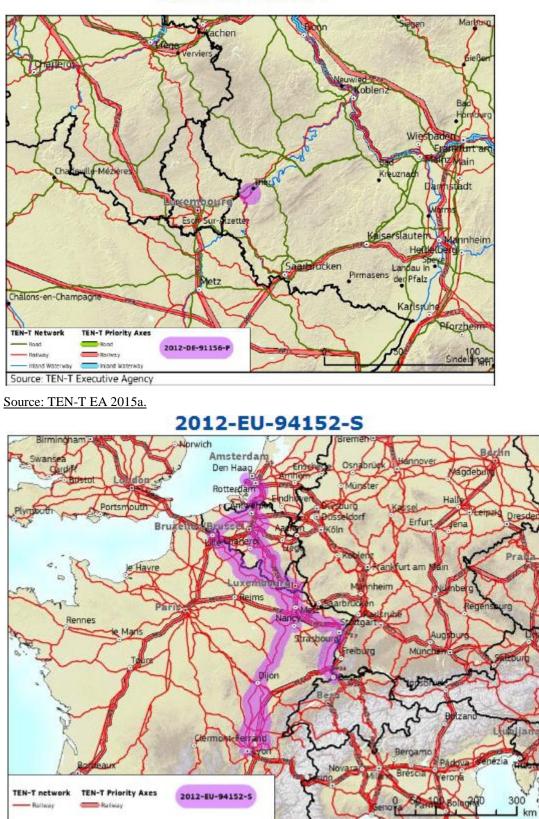


Source: TEN-T EA 2014d.

2012-LU-28025-S Part of Priority Project 28



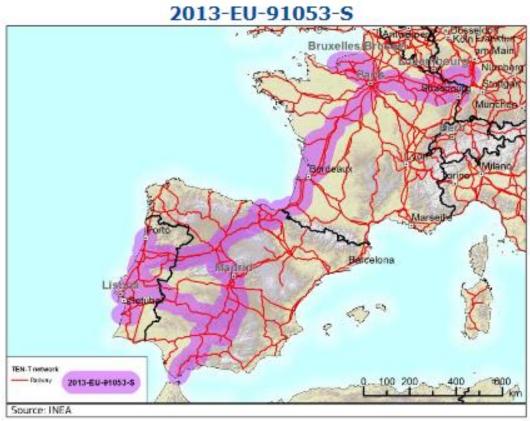
Source: TEN-T EA 2014g.



# 2012-DE-91156-P

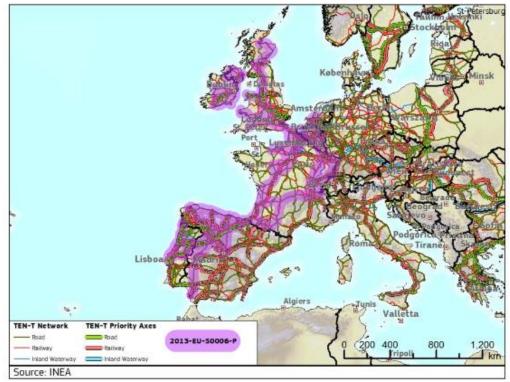
Source: TEN-T EA 2015f.

Source: TEN-T Executive Agency

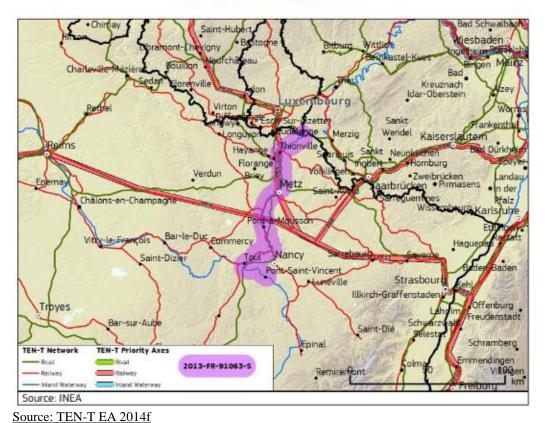


Source: TEN-T EA 2015d.

2013-EU-50006-P



Source: TEN-T EA 2015g



# 2013-FR-91063-S

2014-2020

# 2014-LU-TM-0257-W North Sea-Mediterranean Corridor



Source: Innovation and Networks Executive Agency 2015h.

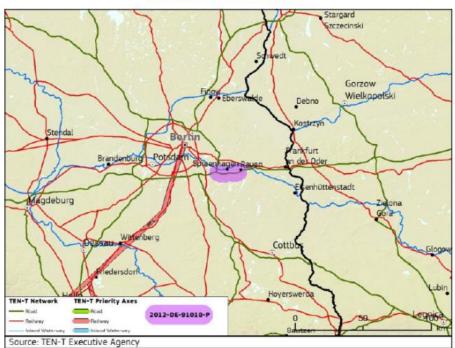


Source: Innovation and Networks Executive Agency 2016b

# X.3.2.2 Brandenburg-Lubuskie

# TEN-T

2007-2013



2012-DE-91018-P

Source: European Commission and INEA 2015a



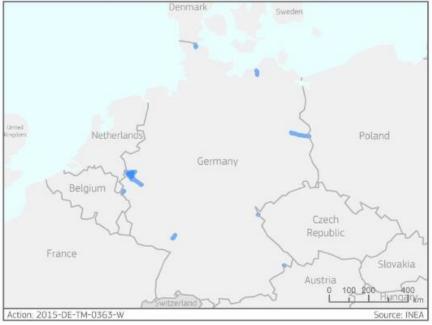
# 2011-EU-95090-S

Source: European Commission and INEA 2014

#### <u>2014-2020</u>

### 2015-DE-TM-0363-W

Atlantic, North Sea-Baltic, Rhine-Alpine, Rhine-Danube and Scandinavian-Mediterranean Corridors



Source: Innovation and Networks Executive Agency 2016a

# INTERREG A

<u>2007-2013</u>

<u>Table 90: Purely touristic projects funded between 2007 and 2013 in the Brandenburg - Lubuskie cross-</u> border region

Jorder Tegion		
Project name and lead partner	Funding period	Funds
Die Oder für Touristen 2014 – Entwicklung des Wassertourismus im grenzübergreifenden Gebiet der Mittleren Oder – Phase II (Lead partner:Nowa Sól)	02/2010 - 12/2012	5.9 million Euros (KEEP 2014)
Ausbau von Lückenschlüssen entlang des Europäischen Fernradwanderweges R1 durch die Landkreise Märkisch-Oderland, Slubice und Sulecin (Lead partner: Landkreis Märkisch Oderland)	01/2011 - 06/2014	ca. 2.7 million Euros (KEEP 2015c)
Vernetzung der touristischen Infrastruktur des östlichen Schwielochsees und Erweiterung der touristischen Angebote (Lead partner: Friedland)	01/2013 - 06/2014	ca. 0.6 million Euros (Gemeinsames Technisches Sekretariat PL-BB n.y.c)
Ausbau von Lückenschlüssen entlang des Europäischen Fernradwanderweges R1 durch die Landkreise Märkisch-Oderland, Slubice und Sulecin (Lead partner: Märkisch Oderland)	01/2011 - 12/2012	ca. 2.9million Euros
Bau des grenzenübergreifenden Radweges Kietz – Kostrzyn Nad Odrą – Barlinek (Lead partner: Gorzow-Wielkopolski)	08/2009 - 05/2011	ca. 0.5 million Euros (KEEP 2015d)
Entwicklung des Wassertourismus auf der Neiße in der Eurostadt Gubin-Guben - östliches Ufer der Lausitzer Neiße (Lead partner: Gubin)	06/2010 - 10/2011	ca. 0.4 million Euros (KEEP 2015e)

Source: Author, Kaiserslautern, 2017.

# X.4 List of interview partners

# Belgium

- Laurent Demilie (SPF Mobilité et Transports) : 18.10.2016, telephonic
- Didier Castagne (Service Public de Wallonie) : 30.11.2016, telephonic
- Daniel Hilligsmann (German Speaking Community): 29.11.2016, telephonic
- Henry Demortier (Province de Luxembourg) : 29.11.2016, telephonic
- Niels Antoine (Province de Liège) : 05.12.2016, telephonic

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# France

- *Etienne Hilt* (Direction Régionale de l'Environnement de l'Aménagement et du Logement Grand-Est; working group *transport* of the *Gipfel der Großregion*): 19.10.2016, telephonic
- *François Straehli* (Préfecture de la Région Alsace Champagne-Ardenne Lorraine): 17.11.2016, telephonic
- *Stéphane Bost* (Préfecture de la Région Alsace Champagne-Aredenne-Lorraine): 13.12.2016, telephonic
- Isabelle Arts (Conseil Général de Meurthe-et-Moselle): 07.12.2016, telephonic
- Thomas Beck (Conseil Général de la Moselle): 16.12.2016, telephonic

### Germany

- Jens Kurnol (Bundesinstitut f
  ür Bau-, Stadt- und Raumforschung; Ausschuss f
  ür Raumordnung der Deutsch-Polnischen Regierungskommission f
  ür regionale und grenznahe Zusammenarbeit): 21.09.2016, telephonic
- *Reiner Nagelkrämer* (Bundesminsterium für Verkehr und Digitale Infrastruktur): 26.9./3.11./5.11.2016, via email
- Andrea Ludwig (Minsterium für Wirtschaft, Arbeit, Energie und Verkehr Saarland): 19.10.2016, telephonic
- *Markus Glöckner* (Minsterium für Wirtschaft, Arbeit, Energie und Verkehr Saarland): 09.11.2016, telephonic
- Juliette Ripp (Minsterium für Wirtschaft, Arbeit, Energie und Verkehr Saarland): 30.11.2016, telephonic
- Andrea Chlench (Ministerium für Inneres und für Sport Saarland): 17.10.2016, telephonic
- *Gerhard Harmeling* (Ministerium für Wirtschaft, Verkehr, Landwirtschaft und Weinbau Rheinland-Pfalz): 03.11.2016, telephonic
- Petra Schelkmann (Ministerium des Innern und für Sport): 22.11.2016, telephonic
- *Thomas Geyer* (Zweckverband Schienenpersonennahverkehr Nord): 02.11.2016, telephonic
- Michael Heilmann (Zweckverband Schienenpersonennahverkehr Süd): 30.11.2016, telephonic
- Werner Schreiner (Staatskanzlei Rheinland-Pfalz): 21.10.2016, telephonic
- Roland Werning (Planungsgemeinschaft Region Trier): 18.10.2016, telephonic
- Hans-Günther Clev (Planungsgemeinschaft Westpfalz): 17.10.2016, Kaiserslautern (Germany)
- Christoph Trinemeier (Verband Region Rhein-Neckar): 30.11.2016, telephonic
- *Ellen Kray* (Ministerium der Justiz und für Europa und Verbraucherschutz Brandenburg): 02.09.2016, telephonic
- Horst Sauer (Gemeinsame Landesplanung Berlin Brandenburg): 12.09.2016, telephonic
- *Egbert Neumann* (Ministerium für Infrastruktur und Landesplanung Brandenburg): 21.11.2016, telephonic
- *Ralf Ullrich* (Planungsstelle Region Lausitz-Spreewald): 23.09.2016, telephonic
- *Steffi Kramer* (Planungsstelle Region Oderland-Spree): 07.09.2016, Frankfurt (Oder) (Germany)
- *Thomas Dill* (Verkehrsverbund Berlin Brandenburg; Runder Tisch Verkehr Oderpartnerschaft): 05.12.2016, telephonic

# Luxemburg

- *Marie Josée Vidal* (Ministère du Développement Durable et des Infrastructures): 28.10.2016, Luxembourg (Luxemburg)
- *Guy Besch* (Ministère du Développement Durable et des Infrastructures) : 05.10.2016, Luxembourg (Luxemburg)
- *Tom Juttel* (Ministère du Développement Durable et des Infrastructures) : 05.10.2016, Luxembourg (Luxemburg)
- *Alex Kies* (Ministère du Développement Durable et des Infrastructures): 02.12.2016, telephonic
- André Bissen (Ministère du Développement Durable et des Infrastructures): 02.12.2016, telephonic
- *Gilles Dostert* (Mobiliteietsverbond, working group of the WSAGR on *transport and mobility in the Greater Region*): 21.10.2016, telephonic

### Poland

- Iwona Brol (Ministerstwo Infrastruktury i Rozwoju): 19.09.2016, via email)
- Andrzej Klauza (Urząd Marszałkowski Województwa Lubuskiego): 15.12.2016, via email)
- Maciej Nowicki (Urząd Marszałkowski Województwa Lubuskiego): 03.11.2016, telephonic)

#### •

# **CBR Greater Region:**

- *Michael Sohn* (QuattroPole): 14.10.2016, Esch sur Alzette (Luxemburg)
- ◆ Laurence Ball (Euregio Saar-Lor-Lux+): 10.10.2016, telephonic
- *Marie Kiffer* (EGTC Eurodistrict SaarMoselle): 18.11.2016, telephonic
- *Marine Camps* (EGTC Alzette-Belval): 19.10.2016, telephonic
- Christiane Weidenhaupt (Wirtschafts- und Sozialausschuss Greater Region): 14.10.2016, Esch sur Alzette (Luxemburg)
- Ruut Lowers (INTERREG VB North West Europe): 18.10.2016, telephonic
- Péter Balázs (North Sea Mediterranean Corridor): 12.12.2016, telephonic
- Florence Jacquey (Gipfelsekretariat der Großregion): 19.10.2016, telephonic
- *Isolde Ries* (Interregionaler Parlamentarier-Rat : Kommission für Verkehr und Kommunikation): 21.11.2017, via email)

#### •

# CBR Brandenburg-Lubuskie

- Vineta Griekere & Bartlomiej Wierzbicki (INTERREG B Baltic Sea): 13.09.2016, telephonic
- Winfried Ritt (INTERREG B Central Europe): 03.10.2016, telephonic
- Bernd Diehl (INTERREG B Central Europe, National Contact Point): 13.10.2016, telephonic
- Thomas Erlandson (Baltic Sea Macroregional Strategy): 23.09.2016, telephonic
- Vera Kissler (North Sea Baltic Corridor): 02.09.2016, telephonic
- Toralf Schiwietz (Euroregion Pro Europa Viadrina): 07.09.2016, Frankfurt (Oder) (Germany)
- Kathleen Markus (Euroregion Spree-Neiße-Bober): 20.10.2016, telephonic

# X.5 Interview Questions (Example)

#### Interview questions national level: (Greater Region)

- 1) Introductory questions
- How far are you involved in the cross-border transport development of the cross-border region Greater Region?
- What is your function/position?
- How do you evaluate the status quo of the transport system in the Greater Region across the border?
- 2) Domestic Transport System
- How is the transport development steered in your country?
- On which administrative levels does transport planning exist? Who decides about the implementation of transport projects?
- How are transport projects financed? Which funds are available on which level?
- 3) Policy documents
- Which national documents do contain aims for the transport development? Do they formulate aims concerning cross-border transport to other EU Member States? Are the aims binding for lower levels?
- Do the national policy documents relate to the EU aim categories (see figure 1)?

#### Figure 1: Categories of Transport Aims of policy documents

CATEGORIES OF TRANSPORT AIMS	yes/i	yes/no									
Document name											
Transport Infrastructure network											
Remove barriers, improve capacity + efficiency											
Link TEN-T and secondary networks											
Relieve routes/ Fight congestion											
Intermodality/ Interoperability											
Intelligent transport systems											
Freight corridors											
New technologies/innovations (research)											
Improve mobility of freight											
Improve the mobility of citizens											
Improve the accessibility for remote areas											
Connect neighbouring/New Member States											
Improve cross-border sections											
Improve user-friendliness											
Transport Services											
(Urban) public transport and bicycle/foot											
Transport Safety											
Cross-border services											
Environment and Sustainability											
Alternative modes of transport (rail,)											
Alternative fuels/Climate Change											
Minimize environmental harm											
Sustainable Transport											
Exchange of practices/ coordination											

- 4) Influence of EU policy on national transport documents
- How far do the national documents reference the EU transport aims and the Europe 2020 aims?
- How far do the national documents reference the TEN-T corridors and the priority projects? Are they relevant? Why/Why not?
- 5) Influence of national policy on EU instruments (TEN-T corridors + ETC programmes)
- How was the definition of the TEN-T corridors and transport priority projects influenced by the national politicians and policy aims?
- How is the development of the INTERREG Operational and Cooperation programmes (INTERREG A+B) influenced by the national transport aims?
- 6) Influence of EU programmes and transport corridors on cross-border transport
- How do you evaluate the influence of the INTERREG B Programme North-West-Europe on the cross-border transport?
- How do you evaluate the influence of the TEN-T Core Network Corridor which crosses the crossborder region (North Sea Mediterranean) on the cross-border transport?
- How do you evaluate the influence of the INTERREG A Cooperation Programme Greater Region (Grande Région) on the cross-border transport?
- Which transport projects of the above named funding programmes have been developed and implemented?
- Is there any outstanding best-practice projects concerning cross-border transport?
- 7) Influence of national policy on cross-border transport
- Do the national documents influence the expansion of cross-border transport?
- 8) Coordination of the transport development across the borders and involved actors
- Is there a coordination of transport investments and planning across borders?
- How do you evaluate the role of the cross-border Comité de Coordination du Développement Territorial (CCDT) of the Greater Region?
- Do the domestic transport development aims contradict each other in the different countries of the Greater Region?
- Does a cross-border transport development strategy exist?
- Which challenges hamper a cross-border coordination of the transport development?
- 9) Transport initiativees without EU support
- Which subnational and cross-border transport initiatives exist without EU support? What are there
  aims?
- How are these initiatives funded and implemented?
- Who is involved?
- How did they arise?
- How do you evaluate the influence of these initiatives on the cross-border transport?
- Are there any outstanding non-EU funded best pratice projects concerning cross-border transport?

#### 10) Other influence factors on cross-border transport development

 Are there other relevant points that should be taken into account which influence the implementation of EU aims and the development of cross-border transport?

2