



Study on providing public transport in cross-border regions – mapping of existing services and legal obstacles

Toolbox

Contract: 2019CE160AT093



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1. Introduction

The study “Providing public transport services in cross-border regions – mapping of existing services and legal obstacles” includes a toolbox with about 30 tools. The toolbox provides a structured overview of solutions to the development and implementation of cross-border public transport services (CBPT) beyond a stocktake of CBPT at one specific moment in time as presented in the web viewer.

We distinguish six groups of tools which are not mutually exclusive. Some tools may be considered under different headings. Table 1 provides an overview of the six groups, each of which is then further detailed with potential solutions as identified in the inventory of obstacles.

Table 1 Overview of tools

Groups of tools	Approaches to solutions	Tools
Legal (Chapter 2)	EU-level legislative action on transport and CBPT (Section 2.1)	<ul style="list-style-type: none"> • EU-wide harmonisation of legal frameworks • Introduction of European Cross-Border Mechanism (ECBM)
	National-level legislative action on transport and CBPT (Section 2.2)	<ul style="list-style-type: none"> • Application of the European Cross-Border Mechanism: Commitment and Statement • Interstate agreements on the provision of services • (Coordinated) Amendment of national and regional legal frameworks
Organisational / Governance (Chapter 3)	‘Pragmatic bridging’ of shared problems (Section 3.1)	<ul style="list-style-type: none"> • Setting up one-sided transport associations to facilitate cooperation across the border • Cooperation between transport associations across the border • Establishment of a cross-border transport association
	Joint structures for managing CBPT (Section 3.2)	<ul style="list-style-type: none"> • Establishment of new joint organisations for different CBPT tasks • European Grouping of Territorial Cooperation (EGTC) • European Economic Interest Group (EEIG) • Key contact person/organisation as multiplier and one-stop-shop
	Collaboration between key actors (Section 3.3)	<ul style="list-style-type: none"> • Political support from local and regional players • Networks and permanent working groups or roundtables with relevant players • Other cross-border structures for stable cooperation
Planning (Chapter 4)	Establishing new CBPT or consolidation of existing CBPT (Section 4.1)	<ul style="list-style-type: none"> • Coordination and integration of domestic timetables

Groups of tools	Approaches to solutions	Tools
	Joint planning activities (Section 4.2)	<ul style="list-style-type: none"> • Lobbying towards national and regional governments and EU institutions • Elaboration of a joint strategy for developing and planning CBPT • Better coordination of domestic infrastructure planning
	Joint knowledge base (Section 4.3)	<ul style="list-style-type: none"> • Database with experience from other regions' CBPT • Factsheets on own activities in relevant languages • Analysis of framework conditions (e.g. legal/regulatory context) • Monitoring of recent and ongoing developments (e.g. cross-border flows, political processes) • Identify funding opportunities (e.g. Interreg, CEF)
Information and marketing (Chapter 5)	Demand-related measures for stimulating a greater use of CBPT (Sections 5.1 & 6.1)	<ul style="list-style-type: none"> • Multilingual information about the border region, its destinations and activities • Integrated offers • Target group-oriented ticketing
Ticketing (Chapter 6)	Stronger integration or coordination of domestic tariff systems (Section 6.2)	<ul style="list-style-type: none"> • Consideration of differences in fare levels and national ticketing systems • Cross-border tariff systems, unilateral extension of domestic tariff systems and cross-border tickets
Technical (Chapter 7)	Harmonisation of technical standards (Section 7.1)	<ul style="list-style-type: none"> • Physical infrastructure (e.g. missing links, platform heights, electrification of railway) • Rolling stock and their equipment (e.g. ticket validation)

Each tool description is presented in a table and is self-standing, i.e. the reader does not have to follow the page order. The table has two main parts. First, an overview of different categories, e.g. the group to which the tool belongs, obstacles, geographical focus and transport modes. The second part describes the tool in detail and gives practical examples or information on success factors. The final row lists references to websites and/or background documents. This includes also case studies, which either used the tool or it could be relevant.

In addition to presenting each tool, the toolbox introduction contains overviews to guide the reader. These include

- a matrix illustrating links between tools and obstacles (from the inventory of obstacles),
- illustrations of potential combinations of solutions for selected groups of obstacles to inspire the reader, and
- and an overview of links between tools and groups of tools.

In using the toolbox, the general model of passenger transport functioning and the mind-map on challenges for CBPT can also be used as guidance, which are presented in section 3.1 of the final report.

Overall, the toolbox offers a starting point for action to develop new or improve CBPT and gives examples. As such, this document is one element of a wider set of information sources that aims to help navigating between questions arising when developing CBPT. This toolbox is an overview of access points rather than a step-by-step guide to setting up CBPT. This way, the toolbox may be used more flexibly at different stages and for different aspects of CBPT development. The tools below are ‘building blocks’ that can be combined in different ways.

This set-up makes this toolbox complementary to other toolboxes and guidance on CBPT with different perspectives such as:

- The ‘Transnational Toolbox for Improving Regional and Cross-Border Railway and Public Transport Connections in Central Europe’ (Interreg project CONNECT2CE). This offers a step-by-step approach on ‘WHAT to do’ rather than ‘HOW to address a challenge’, which is the focus of this toolbox.¹
- CONPASS that offers tools for four types of barriers in CBPT based on best practice descriptions.²
- The ARPAF3 project ‘Crossborder’ offers a toolbox for company mobility management with tools for four dimensions of CBPT development including infrastructure development and preparatory analyses from the perspective of a regional company searching to contribute to sustainable commuting for its employees.⁴

¹ <https://www.interreg-central.eu/Content.Node/Transnational-Toolboxes.zip>

² The acronym for “Better CONnections in European PASSenger Transport”, a project of the 5th RTD Framework Programme, <https://trimis.ec.europa.eu/project/better-connections-european-passenger-transport#tab-docs>.

³ ARPAF is the acronym of the Alpine Region Preparatory Action Fund that supports EUSALP Action Groups in implementing their work plans (<https://www.alpine-region.eu/publications/alpine-region-preparatory-action-fund-arpaf>).

⁴ https://www.alpine-region.eu/sites/default/files/uploads/project/1027/attachments/toolbox_for_company_mobility_management_all_languages.pdf

1.1. Overview of links between tools and groups of obstacles

The following table shows common links between groups of obstacles with tools described below. It facilitates the search for tools when starting from a specific obstacle. These links bring together insights from the inventory of obstacles and case studies. The links are not exhaustive and may not include all obstacles within a group.

Groups of tools	Tools	Obstacles / problems due to ...						
		unprofitable CBPT / lack of finance	difficult territorial context / lack of demand	inadequate ticket pricing / lack of tariff integration & information	diverse governance systems	sub-optimal CBPT development	inadequate railway infrastructure / lack of inter-operability	suboptimal timetable coordination
Legal (Chapter 2)	• EU-wide harmonisation of legal frameworks						X	
	• Introduction of European Cross-Border Mechanism (ECBM)				X			
	• Application of the European Cross-Border Mechanism: Commitment and Statement				X			
	• Interstate agreements on the provision of services	X			X	X		
	• (Coordinated) Amendment of national and regional legal frameworks	X			X	X	X	
Organisational / Governance (Chapter 3)	• Setting up one-sided transport associations to facilitate cooperation across the border		X	X	X			X
	• Cooperation between transport associations across the border		X	X				X
	• Establishment of a cross-border transport association			X	X	X		
	• Establishment of a new joint organisations for different			X	X	X		X

PUBLIC TRANSPORT SERVICES IN CROSS-BORDER REGIONS – MAPPING OF EXISTING SERVICES AND LEGAL OBSTACLES

Groups of tools	Tools	Obstacles / problems due to ...						
		unprofitable CBPT / lack of finance	difficult territorial context / lack of demand	inadequate ticket pricing / lack of tariff integration & information	diverse governance systems	sub-optimal CBPT development	inadequate railway infrastructure / lack of inter-operability	suboptimal timetable coordination
	CBPT tasks							
	• European Grouping of Territorial Cooperation (EGTC)			(X)	X	X	(X)	
	• European Economic Interest Group (EEIG)			X	X	(X)		
	• Key contact person/organisation as multiplier and one-stop-shop			X	X	X	X	
	• Political support from local and regional players	X		X	X	X	(X)	
	• Networks and permanent working groups or roundtables with relevant players	X	X	X	X	X	X	X
	• Other cross-border structures for stable cooperation			X		X		X
Planning (Chapter 4)	• Coordination and integration of domestic timetables		X	X	X	X		X
	• Lobbying towards national and regional governments and EU institutions	X			X		X	
	• Elaboration of a joint strategy for developing and planning CBPT	X	X	X	X	X	X	X
	• Better coordination of domestic infrastructure planning				X	X	X	
	• Database with experience from other regions' CBPT	X	X	X	X	X	X	X
	• Factsheets on own activities	X			X		X	

Groups of tools	Tools	Obstacles / problems due to ...						
		unprofitable CBPT / lack of finance	difficult territorial context / lack of demand	inadequate ticket pricing / lack of tariff integration & information	diverse governance systems	sub-optimal CBPT development	inadequate railway infrastructure / lack of inter-operability	suboptimal timetable coordination
	in relevant languages							
	<ul style="list-style-type: none"> Analysis of framework conditions (e.g. legal/regulatory context) 	X	X	X	X	X	X	X
	<ul style="list-style-type: none"> Monitoring of recent and ongoing developments (e.g. cross-border flows, political processes) 	X	X	X		X		X
	<ul style="list-style-type: none"> Identify funding opportunities (e.g. Interreg, CEF) 		X			X	X	
Information and marketing (Chapter 5)	<ul style="list-style-type: none"> Multilingual information about the border region, its destinations and activities 		X	X		X		X
	<ul style="list-style-type: none"> Integrated offers 		X	X		X		X
Ticketing (Chapter 6)	<ul style="list-style-type: none"> Target group-oriented ticketing 		X	X				
	<ul style="list-style-type: none"> Consideration of differences in fare levels and national ticketing systems 		X	X		X		
	<ul style="list-style-type: none"> Cross-border tariff systems, unilateral extension of domestic tariff systems and cross-border tickets 			X	X			
Technical (Chapter 7)	<ul style="list-style-type: none"> Physical infrastructure (e.g. missing links, platform heights, electrification of railway) 		X			X	X	
	<ul style="list-style-type: none"> Rolling stock and their equipment (e.g. ticket validation) 						X	

1.2. Possible combinations of solutions

The following illustrates possible combinations of approaches to obstacles for selected groups. These serve as a source of inspiration and show alternative and complementary ways to tackle challenges to CBPT development or implementation.

Figure 1 Potential logic of alternative and complementary approaches tackling financial obstacles

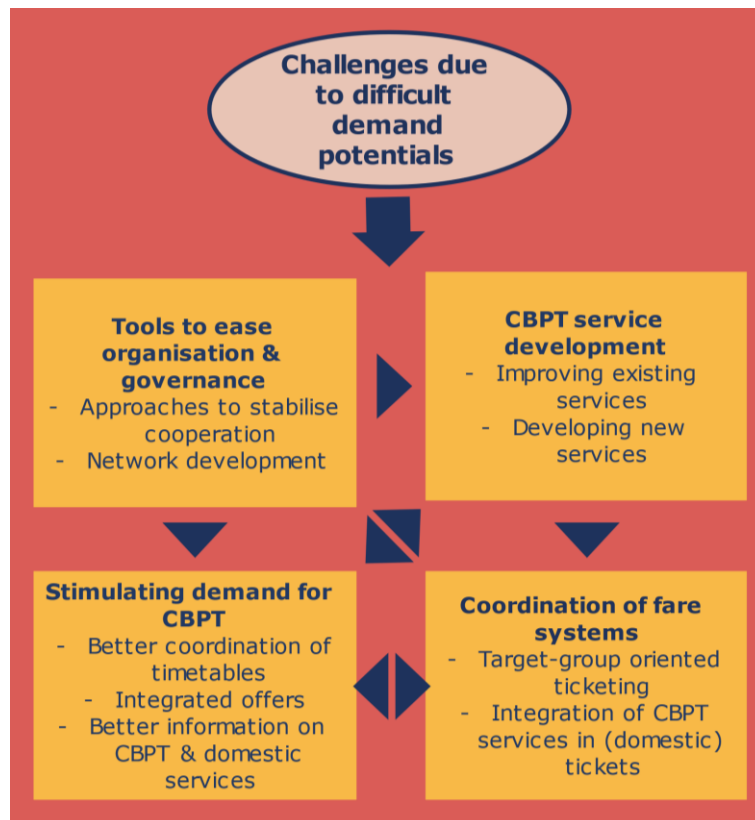


Source: Service provider, 2021

Financial obstacles occur because of lack of funding, unprofitability or unbalanced financial resources in the neighbouring countries. Examples of case studies with such obstacles are the bus connections Szombathely (Hungary) – Oberwart (Austria) and Gorizia (Italy) – Nova Gorica (Slovenia) and the rail links Maribor (Slovenia) – Bleiburg (Austria) and Berlin (Germany) – Kostrzyn (Poland).

These obstacles often require improved or intensified cooperation and governance to search for alternative financing approaches or funding models. To implement these joint planning activities and possibly legal adjustments (e.g. in the case of the prohibition of public subsidies for cross-border services) may be necessary (left row in Figure 1). In other cases, it may be possible to develop solutions more ‘pragmatically’ through cooperation (right side in Figure 1). Based on solid funding solutions, stakeholders may then also aim for better fare coordination for the benefit of passengers (bottom right in Figure 1).

Figure 2 Potential logic of alternative and complementary approaches tackling a lack of demand potentials

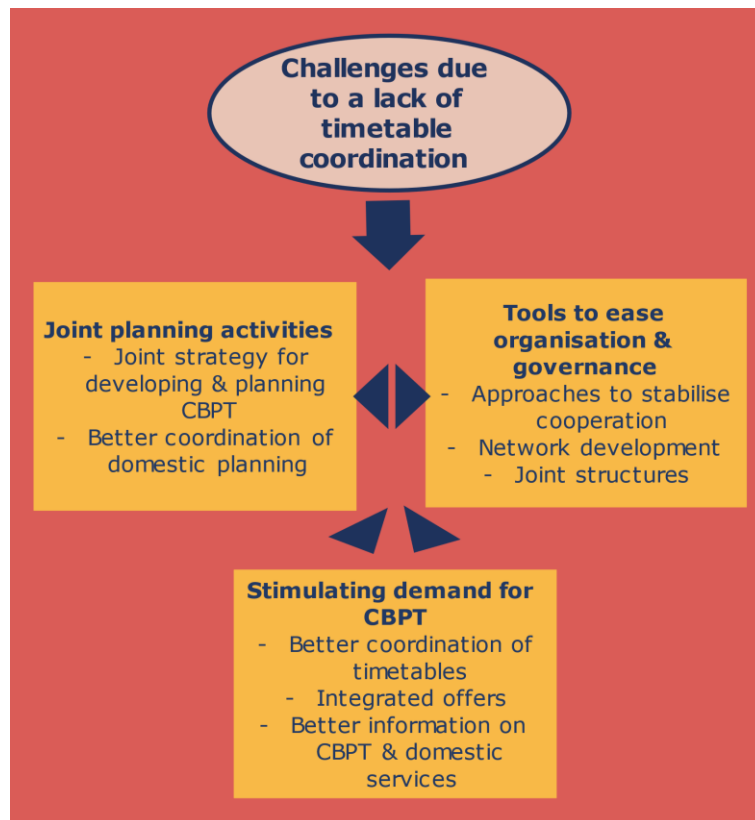


Source: Service provider, 2021

Demand potential obstacles occur due to a lack of demand or asymmetric demand patterns (Figure 2). Examples of case studies with such obstacles are the bus connections Szombathely (Hungary) – Oberwart (Austria) and Suwałki (Poland) – Kaunas (Lithuania) and the rail link Maribor (Slovenia) – Bleiburg (Austria). The overlap of case studies dealing with financial obstacles and demand potential obstacles shows how these obstacles may be linked, adding to the complexity of obstacles and potential solutions.

Especially scarce and scattered potential demand calls for optimised use of existing services to avoid further service derogation. Again, better cooperation may be the starting point to develop further tools/solutions. Demand may be stimulated through different service improvements either in the CBPT provision itself or through related services. The tailored combinations (variety of arrows in Figure 2) depend on the specific demand issue.

Figure 3 Potential logic of alternative and complementary approaches tackling a lack of timetable coordination



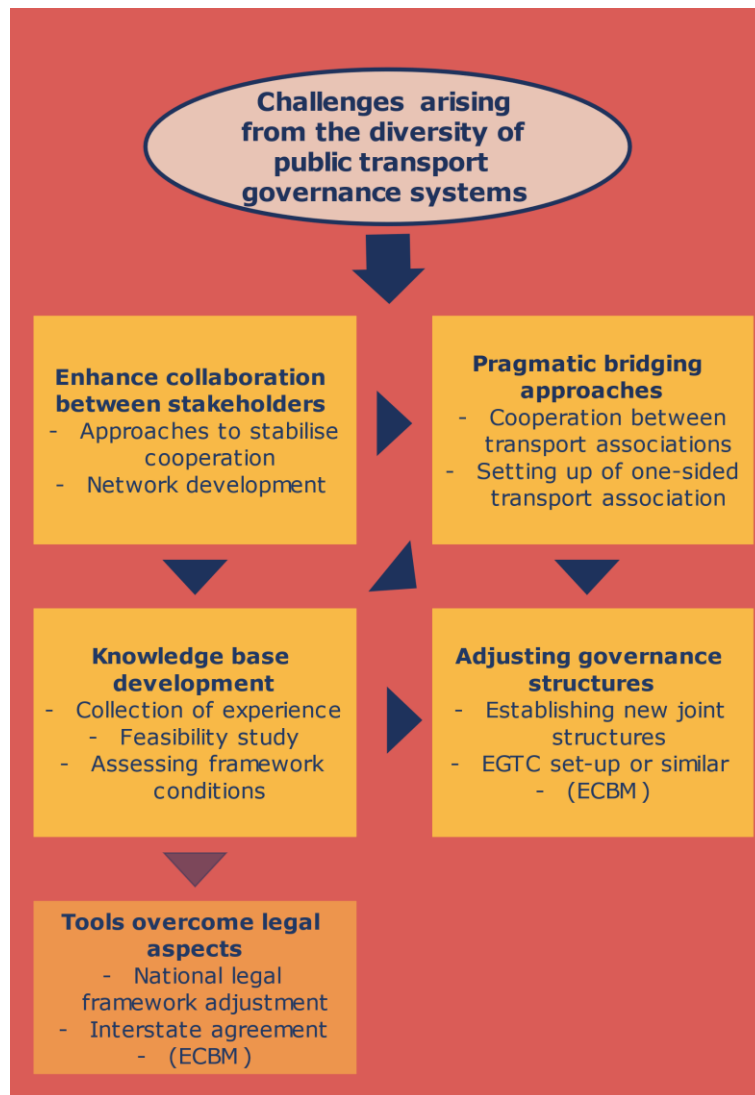
Source: Service provider, 2021

Obstacles may only relate to specific dimensions of CBPT provision, such as a lack of timetable coordination (Figure 3). Obstacles may refer to:

- the coordination with domestic connections in one or both countries as illustrated by the rail connection Berlin (Germany) – Kostrzyn (Poland),
- a lack of multimodal integration as shown by the bus service Hisdasnémeti (Hungary) – Kechnec (Slovakia) that lacks coordination with railway services or the ferry link Puttgarden (Germany) – Rødbyhavn (Denmark) hampered by a missing hinterland connection,
- long and inadequate travel time shown by the rail link Oradea (Romania) – Debrecen (Hungary), or
- a lack of timetable information in one country as in the case of the bus service Szombathely (Hungary) – Oberwart (Austria).

The rail link case study Innsbruck (Austria) – Brenner/Brennero (Italy) and the bus services in Haparanda (Sweden) – Tornio (Finland) illustrate how joint planning activities can help in coordinating timetables for different purposes (middle part of Figure 3). Stable cooperation structures and joint strategic perspectives help stimulate the demand through better integration of CBPT offers.

Figure 4 Potential logic of alternative and complementary approaches tackling the diversity of governance systems



Source: Service provider, 2021

CBPT development and provision frequently faces different governance systems (Figure 4). Diversity implies differences in responsibilities, policy concepts, lack of ability or willingness to cooperate and leads to complex administrative procedures. Case study analysis shows this variety. The rail link case Lille (France) – Tournai (Belgium) illustrates the complexity arising from involving regional and national players. Competing policy plans affect the tram-train connection Saarbahn between France and Germany, which in turn has financial effects, and different regulations for wage levels, taxes and labour market affect the ferry service Puttgarden (Germany) – Rødbyhavn (Denmark).

While the services could be further improved, these case studies show the benefits of enhanced collaboration between stakeholders and how they use different formats and structures. Some cases may overcome governance obstacles through pragmatic approaches. Other cases may need changes in structures (on the right in Figure 4) and/or better knowledge creation to develop rationales for further actions, including possibly legal action (bottom left in Figure 4).

1.3. Overview of links between different tools in the toolbox

Several tools or solutions from alternative tools could be combined to overcome obstacles and challenges to developing and operating CBPT services. To highlight links between different tools each description below indicates other tools that may be relevant. In addition, this section, gives an overview of links and tools that tend to be connected to many other tools.

- Tools within one group (i.e. legal, organisational/governance, planning, information and marketing, ticketing, technical tools) are often cross-referenced, either as alternatives or complementary tools.
- Legal tools are mainly related within their group with a few additional relations to organisational tools for setting up joint organisations and knowledge development.
- Organisational and governance may be the group of tools most strongly linked with other groups and with planning tools in particular.
- Information and marketing and ticketing tools are highly interrelated.
- Despite being very important, technical tools are the least connected with other tools. Their most frequent direct links are with planning tools.

A more detailed description of links between tools is in a separate Excel-file. 'X' in the matrix indicates a relation that may stem from both tools connected by the cell or from only from one of them.

2. Legal tools

2.1. EU level legislative action

EU-wide harmonisation of legal frameworks

Type of tool	Legal
Relevant obstacles	EU Legal obstacle (Cabotage)
Specific type(s) of adverse effect	Incoherent implementation of EU legislation by EU Member States
Phase	Planning, but also provision
Modes of transport	Bus / coach
Geographical coverage	<i>Various border relations</i>
Other relevant tools	Interstate agreements on the provision of services; (Coordinated) Amendment of national and regional legal frameworks

Although a range of EU legislative acts regulate public transport in the EU, the legal framework for cross-border public transport services is still highly complex because national and sub-national provisions also have to be met. This complexity results from both a lack of EU-wide harmonisation and differences between EU Member States for organisational structures, competences and practices in public transport planning and delivery.

An important obstacle for CBPT routing in EU legislation concerns cabotage. Cabotage refers to carriers (a) offering road passenger services in another EU Member State, and (b) picking up and setting down passengers in the same country during an international service (article 2 VII, Regulation (EC) No 1073/2009).

Experience at different borders (e.g. ES-PT, IT-SI, HU-SK) shows that the provisions on cabotage hamper cross-border public transport services. More specifically, excluding “transport services meeting the needs of an urban centre or conurbation, or transport needs between it and the surrounding areas” from cabotage (article 15 c, Regulation (EC) No 1073/2009) and allowing Member States to conclude “agreements on the further liberalisation of the services (...), especially in border regions” (article 25) creates administrative burden and hampers initiatives at local and regional level. A less complex legal framework and more pragmatic approach to cabotage should be put in place to allow local and regional authorities to develop practical solutions notwithstanding national authority involvement.

In 2017, the European Commission published a proposal to amend Regulation (EC) No 1073/2009 (COM (2017) 647). The proposal seeks to delete the exception of article 15 c. However, it is currently on hold in the working party on land transport of the European Council (July 2021).

Related case studies:

- Gorizia (Italy) – Nova Gorica (Slovenia)

- Verín (Spain) – Arcos de Valdevez (Portugal)

A detailed report on experience with cabotage at the ES-PT border:

https://futurium.ec.europa.eu/system/files/migration_files/garayo_municipalities_of_chaves_and_verin.pdf

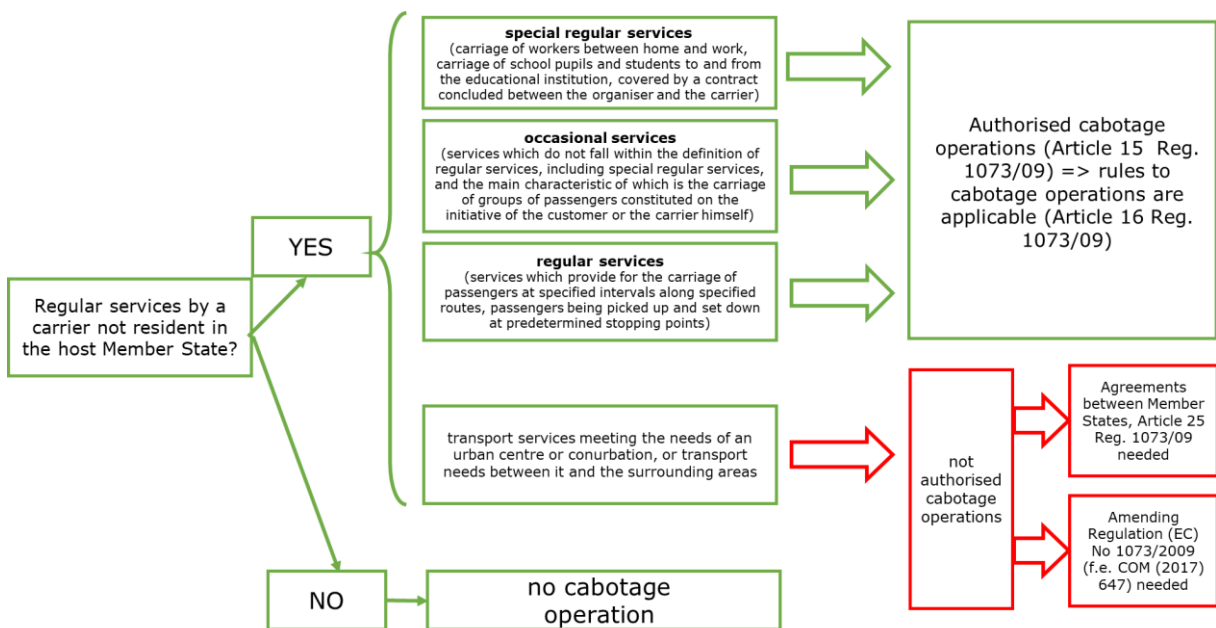
A *b-solutions* report on experience with cabotage at the ES-PT and IT-SI border:

https://0a082877-6a11-41ba-9357-e44773bced60.filesusr.com/ugd/8f68c1_d965a266a3ca43279e8a40d11c3f8ee8.pdf

More information on Regulation (EC) No 1073/2009, the proposal for an amendment of this regulation (COM(2017) 647) and various further reading materials on the rules for access to the international market for coach and bus services:

<https://www.europarl.europa.eu/legislative-train/theme-resilient-energy-union-with-a-climate-change-policy/file-id-common-rules-for-coach-and-bus-services>

Figure 5 Principal overview of the decision tree on ‘Cabotage’



Source: Service provider, 2021

Introduction of European Cross-Border Mechanism (ECBM) – *Tool not yet available*

Type of tool	Legal
Relevant obstacles	Administrative obstacles caused by different national requirements
Specific type(s) of adverse effect	Different approaches and legal requirements to establishing CBPT infrastructure or services
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations</i>
Other relevant tools	Application of the ECBM: Commitment and statement; Interstate agreements on the provision of services; European Grouping of Territorial Cooperation

Once adopted, the European Cross-Border Mechanism (ECBM) will be a legal tool from the joint working programme on territorial cohesion and urban policy of the EU Council Presidency trio between Italy, Latvia and Luxembourg in 2014/2015. Action 3 of the working programme refers to a tool for specific legal provisions to improve cross-border cooperation.

In 2018, the European Commission published a proposal for a mechanism to resolve legal and administrative obstacles in a cross-border context (COM(2018) 373). The main idea of this mechanism is to allow, on a voluntary basis, local and/or regional authorities in one Member State to apply the rules and legal provisions from a neighbouring Member State for a specific project in a predefined area and for predefined time. It is a legal bottom-up tool that empowers local and regional authorities to take the initiative and address legal and administrative obstacles often resulting from colliding national legislative frameworks and/or competences.

In the context of cross-border public transport services, the ECBM could be applied to extending a tram line from one country to another, for example. Complying with the legal provisions and standards of two countries may prevent the tram from being extended and can thus pose an obstacle for better cross-border integration. Applying the same standards and legal provisions on both sides could facilitate a cross-border tram. Other examples could be the harmonisation of otherwise conflicting framework conditions such as procurement rules.

However, the ECBM regulation is currently not in force as it has not yet been adopted (November 2021). The Council stated that the regulation is not linked to the multi-annual financial framework and has, thus, received a lower level of priority. National governments in some EU Member States perceive the ECBM as a threat to their national sovereignty. If the ECBM shall be adopted and enter into force, it is important to raise awareness among national governments of the impact of legal and administrative obstacles on cross-border integration at local and regional level and underline the need for a mechanism that facilitates cross-border cooperation.

Related case studies:

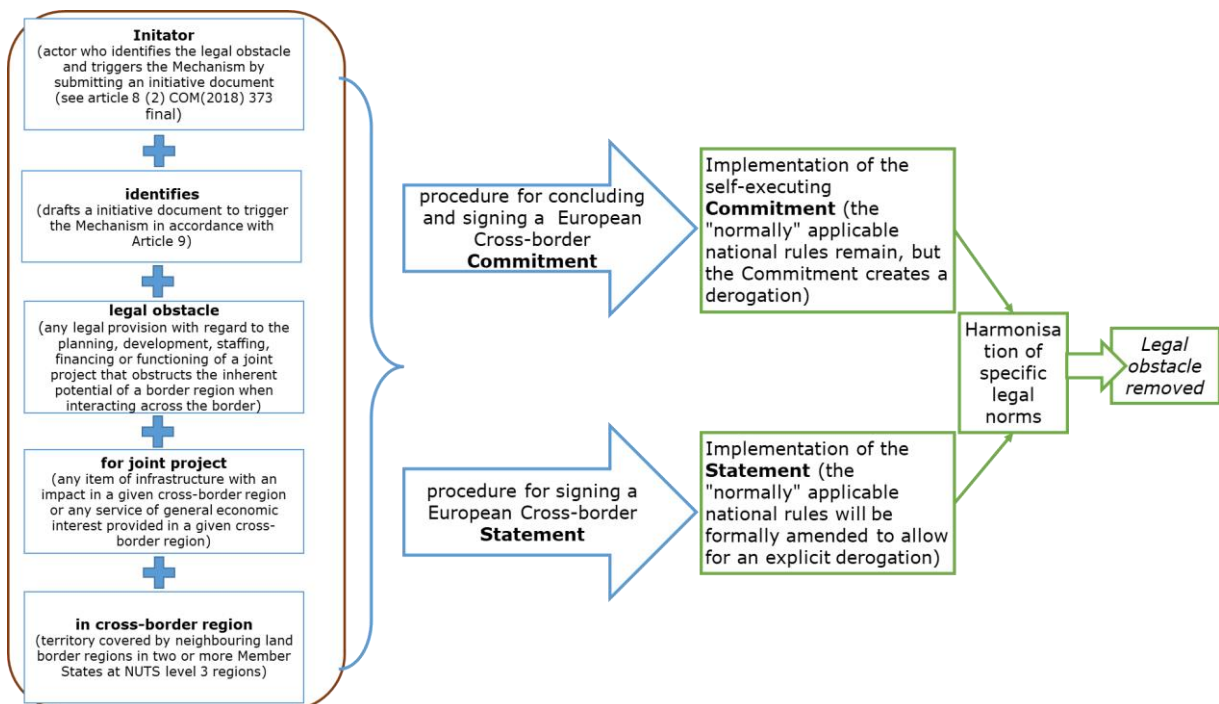
- Berlin (Germany) – Kostrzyn (Poland)
- Puttgarden (Germany) – Rødbyhavn (Denmark)
- Domodossola (Italy) – Spiez (Switzerland)

Proposal of the European Commission on a mechanism to resolve legal and administrative obstacles in a cross-border context: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2018%3A373%3AFIN>

Further information on the legislative procedure:

<https://www.europarl.europa.eu/legislative-train/theme-new-boost-for-jobs-growth-and-investment/file-mff-mechanism-to-resolve-cross-border-obstacles>

Figure 6 Principal overview of the logic of the ECBM



Source: Service provider, 2021

2.2. National level legislative action

Application of the European Cross-Border Mechanism: Commitment and Statement – *Tool not yet available*

Type of tool	Legal
Relevant obstacles	Administrative obstacles from different national approaches
Specific type(s) of adverse effect	Different approaches and legal requirements to establishing CBPT
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations</i>
Other relevant tools	Introduction of European Cross-Border Mechanism (ECBM); European Grouping of Territorial Cooperation

Disclaimer: The ECBM has not yet been adopted at EU level (November 2021).

Once adopted, the ECBM will become a legal tool. It defines a procedure which aims at allowing, on a voluntary basis, competent local and/or regional authorities in one Member State ('committing Member State') to apply the legal provisions from a neighbouring Member State ('transferring Member State') for a specific project in a predefined area and for predefined time. The tool is based on a proposal by the European Commission (COM(2018) 373).

Two measures are the core of the ECBM tool, both of which can be used to address a cross-border legal obstacle for a specific project:

- The European Cross-Border Commitment allows the committing Member State to apply legal provisions from the transferring Member State and derogate from its own national law.
- The European Cross-Border Statement entails a legal procedure in the committing Member State which aims at amending its national legal provisions so the legal provisions from the transferring Member State can be applied.

Both documents include, inter alia, information on the project, the legal provisions constituting the obstacle, the defined area and duration, the legal provisions to be transferred, competent committing and transferring authorities.

Key players in the ECBM procedure are the Cross-border Coordination Points. A Member State can designate a coordination point as a separate body, establish it within an existing body or entrust a body with this additional task. A coordination point must be appointed by the respective Member State for each project. It implements and coordinates the procedure and is responsible for involving authorities from the same Member State and the coordination point from the other Member State. Each Member State may decide to entrust the Cross-Border Coordination Point with the right to conclude a Commitment or Statement.

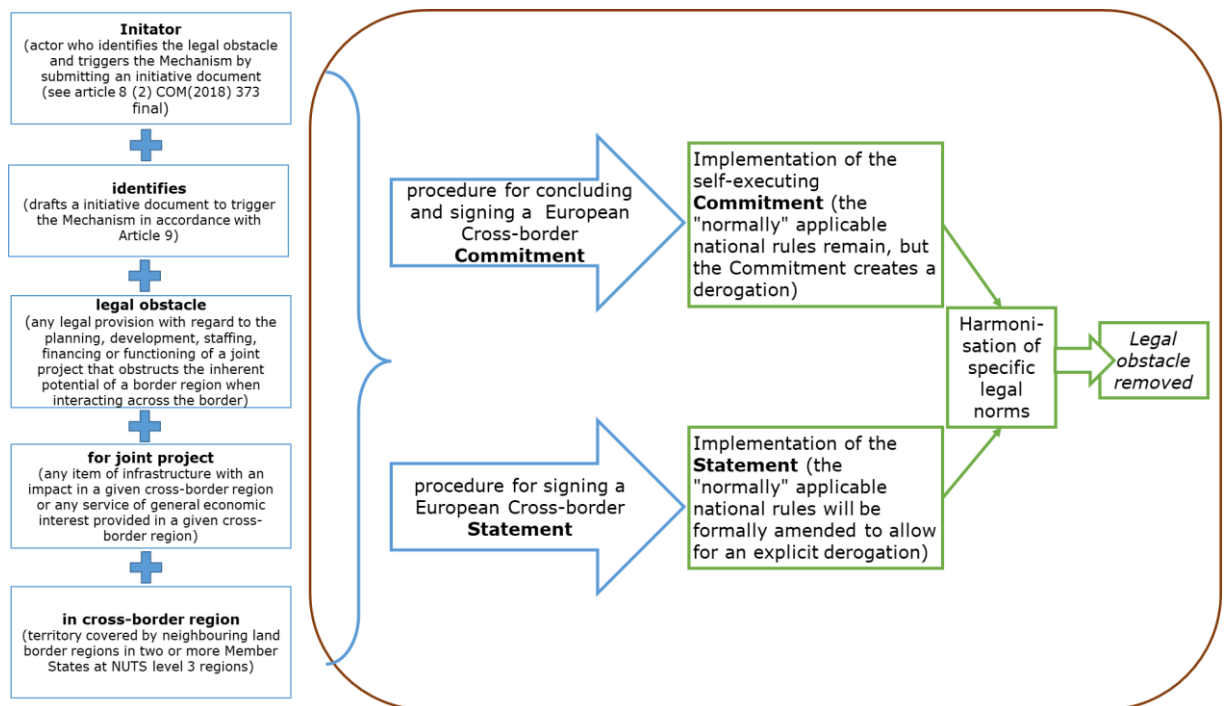
Examples to use the ECBM could be the application of *one* set of technical standards when building a cross-border tramway or a harmonised procedure for issuing a concession for a cross-border bus service. In both cases, the rules and provisions of country A would also be applied in country B.

Related case studies:

- Berlin (Germany) – Kostrzyn (Poland)
- Puttgarden (Germany) – Rødbyhavn (Denmark)
- Domodossola (Italy) – Spiez (Switzerland)

A short video with a practical explanation: <https://ec.europa.eu/futurium/en/boosting-eu-border-regions/european-cross-border-mechanism-practical-explanation>

Figure 7 Principal overview of the logic of the ECBM – national implementation



Source: Service provider, 2021

Interstate agreements on the provision of services

Type of tool	Legal
Relevant obstacles	Mainly national legal and administrative obstacles
Specific type(s) of adverse effect	Especially different approaches and incoherent legal national frameworks
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations, especially those without interstate agreements</i>
Other relevant tools	European Grouping of Territorial Cooperation (EGTC); once adopted, Application ECBM: Commitment and Statement;

In general, formal municipal and/or regional cooperation across borders requires legal agreement at Member State level because national governments and authorities are usually responsible for cooperation with neighbouring countries. In federal countries this may be at the corresponding regional level. When local and/or regional authorities as transport organising authorities intend to implement local or regional CBPT, they rely on such agreements.

A distinction can be made between general agreements on cross-border cooperation and theme-specific interstate agreements.

- Bilateral (or multilateral) agreements establish the legal framework for general (multi-thematic) decentralised cross-border cooperation. The Madrid Outline Convention on Transfrontier Cooperation between Territorial Communities or Authorities adopted by the Council of Europe in 1980 defines the framework for such agreements at European scale. An example of an interstate agreement between EU and non-EU countries based on the Madrid Outline Convention is the Karlsruhe Agreement. It was concluded by the governments of France, Germany, Luxembourg and Switzerland and provides the framework for cross-border cooperation between subnational authorities from two French regions, three German federal states, Luxembourg and five Swiss cantons. As food for thought the table at the end of this tool description offers additional insights to such agreements and the legal instruments they enable.
- In contrast to general bilateral agreements, theme-specific agreements are more focused and detailed. They define the general principles and legal provisions of cross-border cooperation in a particular policy field, e.g. local and regional cross-border public transport.

Interstate agreements on general cross-border cooperation can be an important cornerstone to plan, develop and provide local and/or regional CBPT. They usually provide for different tools by which cooperation can be formalised or institutionalised (e.g. conclusion of cooperation conventions or public-law based conventions, establishment of public-law based cross-border bodies etc.). Depending on the legal framework and its level of detail, these tools can be used for defining the scope of the transport services.

They can lead to the establishment of a cross-border body or define provisions on the timetable, fares (including discounts), marketing, as well as distribution of revenues and responsibilities between the different players. Depending on the specific provisions of each interstate agreement, the main actors using these tools should be the competent transport organising authorities from neighbouring border regions. The most extensive use of these tools for CBPT has been made between France and Switzerland (i.e. on grounds of the Karlsruhe agreement).

Theme-specific interstate agreements are another and more direct option to promote and establish CBPT. Various examples exist at several EU borders, but especially in the Greater Region (DE-LU-FR-BE) and the trilateral Upper Rhine Area (DE-FR-CH). Since 2017, the government of Luxembourg has concluded various interstate cross-border transport agreements with neighbouring countries. This includes one with the French government where Luxembourg commits to investing money in a multi-modal mobility programme with various measures to be implemented in France. Another one exists with the Belgium side for the Walloon region. A multilateral agreement has also been concluded on promoting cross-border rail passenger transport between the French region Grand Est and its three neighbouring German Länder (Saarland, Rheinland-Pfalz, Baden Württemberg).

Related case studies:

- Puttgarden (Germany) – Rødbyhavn (Denmark)
- Narvik (Norway) – Kiruna (Sweden)
- Domodossola (Italy) – Spiez (Switzerland)
- Gorizia (Italy) – Nova Gorica (Slovenia)
- Vidin (Bulgaria) – Craiova (Romania)
- Zimnicea (Romania) – Svishtov (Bulgaria)
- Geneva (Switzerland) - Annemasse (France)

The Madrid Outline Convention (available in English, French, German, Italian, Russian):
<https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/106>

Table 2 Interstate agreements on decentralised cross-border cooperation and main legal instruments

Agreement and relevant borders covered	Establishment of cross-border bodies based on public law	Establishment of other cross-border structures or participation in existing structures with legal personality	Other instruments that can be used to formalise cross-border cooperation
<p>Benelux Convention of 1991, updated in 2014</p> <p>(BE-NL, LU-BE)</p>	<p>Article 4-17: Benelux Grouping for Territorial Cooperation (In Dutch: Benelux Groepering voor Territoriale Samenwerking, BGTS) (In French: Groupement Benelux de coopération territoriale, GBCT)</p>	<p>Article 19: Joint body for cross-border or inter-territorial cooperation (In Dutch: Gemeenschappelijk orgaan voor grensoverschrijdende of interterritoriale samenwerking) (In French : Organe commun de coopération transfrontalière ou interterritoriale)</p>	<p>Article 18: Administrative agreement on cross-border or inter-territorial cooperation</p>
<p>Mainz Agreement of</p>	<p>Article 3-5</p>	<p>Article 7:</p>	<p>Article 6:</p>

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Agreement and relevant borders covered	Establishment of cross-border bodies based on public law	Establishment of other cross-border structures or participation in existing structures with legal personality	Other instruments that can be used to formalise cross-border cooperation
1996 DE-BE (*)	Cross-border special purpose association (In German: Grenzüberschreitender Zweckverband)	Local working community (In German: Kommunale Arbeitsgemeinschaft)	Agreements under public law
Karlsruhe Agreement of 1996, updated in 2004 DE-FR, FR-LU, DE-LU, FR-CH, DE-CH (**)	Article 11-15: Local Grouping of Cross-Border Cooperation (In German: Grenzüberschreitender örtlicher Zweckverband, GÖZ) (In French: Groupement local de coopération transfrontalière, GLCT)	Article 9: Establishment of cooperation bodies without legal personality Article 10: Establishment of cooperation bodies with legal personality.	Articles 3, 4 and 7: Cooperation agreements Article 5: Cooperation agreement providing for a delegation and entrustment of public service tasks. Article 6 Cooperation agreement providing for public procurement
Brussels Agreement of 2002 BE-FR (***)	Article 11-15: Local Grouping of Cross-Border Cooperation (In French: Groupement local de coopération transfrontalière, GLCT) (In Dutch: Lokaal Samenwerkingsverband voor Grensoverschrijdende Samenwerking, LSGS)	Article 9: Establishment of cooperation bodies without legal personality Article 10: Establishment of cooperation bodies with legal personality or participation in foreign bodies having legal personality	Articles 3, 4 and 7: Cooperation agreements Article 5 Cooperation agreement providing for a mandate, delegation and concession of public service Article 6 Cooperation agreement providing for public procurement
<p>(*) Applicable at the bilateral state borders concerning the following regions: the federal states of Rhineland-Palatinate and Nordrhein-Westfalen (DE) as well as the Walloon Region and the German speaking community of Belgium (BE).</p> <p>(**) Applicable at bilateral state borders concerning the following regions or countries: the federal states of Rhineland-Palatinate, Saarland and Baden-Württemberg (DE), the entire Grand-Duchy of Luxembourg (LU), the regions Grand Est and Auvergne-Rhône-Alpes (FR) as well as the 11 Swiss Cantons of Solothurn, Basel-Stadt, Basel-Landschaft, Aargau, Jura, Schaffhausen, Bern, Neuenburg, Waadt, Genf and Wallis (CH).</p> <p>(***) Applicable at bilateral state borders concerning the following regions: Walloon Region (including the French-speaking Community of Belgium) and Flanders Region (BE), the regions Grand Est and Hauts-de-France (FR).</p>			

(Coordinated) Amendment of national or regional legal frameworks

Type of tool	Legal
Relevant obstacles	Mainly legal obstacles
Specific type(s) of adverse effect	Mainly incoherent implementation of EU or national legislation
Phase	<i>All phases</i>
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>Various border relations</i>
Other relevant tools	EU-wide harmonisation of legal frameworks; once approved, Introduction of ECBM; Application of the ECBM: Commitment and Statement

Many challenges to cross-border public transport stem from incompatible or conflicting national legal frameworks. Even EU-wide harmonisation does not always yield the desired outcome because EU secondary law (regulations and directives) are implemented in different ways.

One example of one-sided national changes impacting on CBPT provision is the tramline between Saarbrücken (Germany) and Sarreguemines (France). Changes in French legislation in 2010 led to a fivefold increase in charges to be paid by the German tram operator to the French infrastructure provider for accessing the French railway network and stations. The tram operator and the infrastructure provider negotiated and concluded financial agreements for 2014-2016 and 2017-2019. At the end of 2020, however, another twofold increase was announced without prior notification to the operator but with retroactive effect for 2019 and 2020. Although both national governments committed to cooperating closely on cross-border mobility and developing joint standards in 2019 (Aachen Treaty), no permanent solution has yet be found. The long-term existence and economic viability of the connection remain uncertain.

Another example of incompatible national legislation is the bus service between Zittau in Germany and Bogatynia in Poland. Different national legislations prevent the establishment of a stable framework for cross-border public transport. Polish law is not clear about public subsidies that can be paid to foreign municipalities or carriers. German federal law (or in this case law of Saxony), on the other hand, is not clear about the legal background of cross-border public transport. These inconsistencies imply that neither side can commission the other to carry out public transport services. To overcome this obstacle, the transport association hired an external consultant to develop an agreement that meets all requirements. This enabled the obstacle to be temporarily overcome and the bus line is operating. However, a permanent solution still needs to be found.

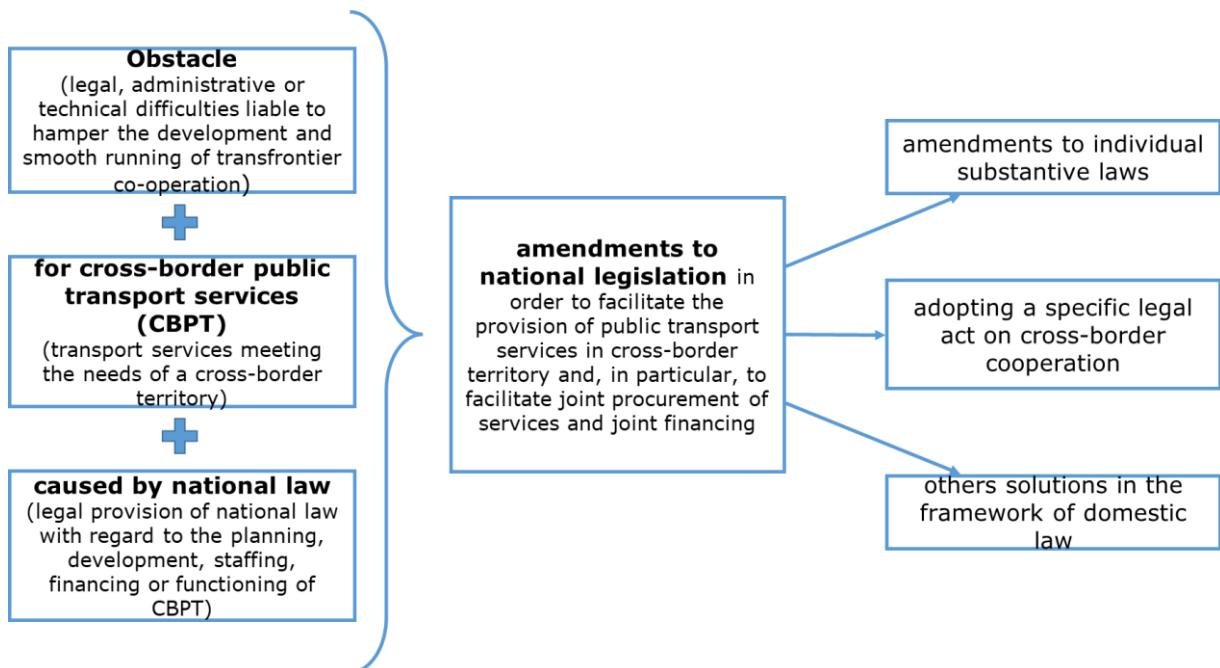
Both examples show that local and regional authorities are disadvantaged. While they can develop short-term solutions without significant changes in national regulations, stable long-term solutions depend on new regulations and/or binding interpretations of existing provisions. This, in turn, requires action from the responsible authorities.

Related case studies:

- Berlin (Germany) – Kostrzyn (Poland)

- Zittau (Germany) – Bogatynia (Poland)
 - Puttgarden (Germany) – Rødbyhavn (Denmark)
 - Narvik (Norway) – Kiruna (Sweden)
 - Domodossola (Italy) – Spiez (Switzerland)
 - Gorizia (Italy) – Nova Gorica (Slovenia)
 - Saarbrücken (Germany) – Sarreguemines (France)
- Further information:
- Communication from the Commission, COM (2017) 534, chapter 3.2 on improving the legislative process

Figure 8 Principal overview of the logic for national legislation amendments



Source: Service provider, 2021

3. Organisational and governance tools

3.1. Pragmatic bridging of shared problems

Setting up one-sided transport associations to facilitate cooperation across borders

Type of tool	Organisational & governance
Relevant obstacles	Mainly organisational and administrative obstacles
Specific type(s) of adverse effect	Lack of or insufficient cross-border coordination of transport services
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>Nearly all border relations</i>
Other relevant tools	Cooperation between transport associations; Key contact person/organisation as multiplier and one-stop-shop; Other cross-border structures for stable cooperation

A transport association is a cooperative organisational grouping of public authorities and/or transport providers, either based on public law or private law. The main aim is to establish integrated tariff zones with harmonised tickets and fares, but sometimes also to provide public transport jointly in a coordinated way. Such associations are widely known in Austria, Germany and Switzerland, and existed also in Luxembourg until March 2021 (the former transport association was merged with the public transport directorate of the national ministry into a new agency). Similar entities exist in some metropolitan areas of other EU Member States as well as in the UK (known as Passenger Transport Executives).

Transport associations may offer unified fares, ticket system, coordinated timetables, joint information on timetables, tickets etc. They may also harmonise and simplify line numbers, create uniform labelling / marketing and ensure coordinated offers of all participating actors (transport organising authorities, transport providers). The extent of these aspects differs depending on the composition and actual tasks of transport associations. Setting-up a transport association can address obstacles arising from a lack of coherence of transport offers, timetables and tickets and can better meet the demand for public transport.

The establishment of a transport association on one side of the border can ease cooperation on CBPT since the number of negotiation partners is reduced. If a transport association exists on the other side of the border, negotiations are even simpler, which benefits the harmonisation and integration of tickets, timetables, information etc. If no such association exists on either side of the border, the set-up of transport associations on each side may simplify the coordination, if transport providers do not want to create a joint institution. However, also a risk of asymmetry exists if there is only one transport association established but no equivalent structure on the other side of the border.

The Elbe-Labe region is connected through several cross-border transport lines including buses, trains and a ferry. To support cross-border mobility and improve the permeability of the border, cross-border tickets were implemented. Prior to existence of a regional transport association on the Czech side of the region (Dopravy Ústeckého kraje – DÚK), the corresponding German regional transport association (VVO) had to make contracts with individual Czech transport providers, which made negotiations and financial transfers burdensome. Founding a regional transport association on the Czech side, simplified the processes for joint ticketing and financial management.

Related case studies:

- Haparanda (Sweden) – Tornio (Finland)
- Szombathely (Hungary) – Oberwart (Austria)
- Maribor (Slovenia) – Bleiburg (Austria)
- Saarbrücken (Germany) – Sarreguemines (France)
- Luxembourg (Luxembourg) – Athus (Belgium)

Further information:

- <https://www.orr.gov.uk/about/who-we-work-with/governments/passenger-transport-executives>
- <https://hilfe.trainline.de/article/587-verkehrsverbunde-in-deutschland>
- Trans-Borders Interreg project: <https://www.interreg-central.eu/Content.Node/TRANS-BORDERS.html>

For an example of setting up a one-sided association to complement an existing one, see e.g. the case study on the German-Czech Euroregion Elbe/Labe from the ESPON CPS project, available online at <https://www.espon.eu/cps>.

Cooperation between transport associations across the border

Type of tool	Organisational & governance
Relevant obstacles	Mainly lack of tariff integration, inadequate ticket pricing and passenger information
Specific type(s) of adverse effect	Higher than necessary ticket prices, no cross-border tickets, insufficient cross-border coordination of transport services
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	Especially borders of AT, DE, CH, LU
Other relevant tools	Setting up one-sided transport associations to facilitate cooperation across borders; Key contact person/organisation as multiplier and one-stop-shop; Other cross-border for stable cooperation

A transport association is a cooperative organisational grouping of public authorities and/or transport providers, based on public or private law. The main aim is to establish integrated tariff zones with harmonised tickets and fares, but sometimes also to provide public transport jointly and in a coordinated way. Such associations exist in

- Austria – by law, each federal state has one regional transport association;
- Germany – except for several Bavarian counties, all border regions are part of a regional transport association;
- Luxembourg – until March 2021 had one transport association representing 34 operators, which was merged with the ministerial public transport directorate into a new agency (ATP);
- Switzerland – all Cantons at Swiss borders except for the Canton of Wallis.

The degree of cooperation varies. It ranges from coordinating timetables to integrating different modes (e.g. rail transport is not always included) and ticketing systems. Cooperation between transport associations may involve the mutual recognition of domestic tickets, motivate the unilateral extension of smaller tariff zones across the border, facilitate the introduction of cross-border tickets valid at the same conditions in neighbouring tariff zones and also help with harmonising other aspects (e.g. timetables, ticketing systems, passenger information etc.).

In the Elbe-Labe region cross-border cooperation of transport associations targets cross-border ticketing and marketing. The focus of the offers and cooperation is on target groups such as tourists, day visitors and shoppers. Tickets are valid for all regional and local transport in the whole area of the two associations, i.e. including cross-border and domestic lines. Income from tickets is distributed between the two associations according to an agreed formula and then further distributed to the providers according to domestic contracts. Possibly as a by-product, this cooperation simplifies information access for potential users of public transport in the region.

Depending on the existence of associations in neighbouring border regions, they may

need to be set-up first (see previous tool) on either or both sides of a border.

Related case studies:

- Haparanda (Sweden) – Tornio (Finland)
- Szombathely (Hungary) – Oberwart (Austria)
- Maribor (Slovenia) – Bleiburg (Austria)
- Luxembourg (Luxembourg) – Athus (Belgium)
- Innsbruck (Austria) - Brenner/Brennero (Italy)
- Saarbrücken (Germany) – Sarreguemines (France)

Further information:

- <https://www.orr.gov.uk/about/who-we-work-with/governments/passenger-transport-executives>
- <https://hilfe.trainline.de/article/587-verkehrsverbunde-in-deutschland>

For an example of setting up a one-sided association to complement an existing one, see e.g. the case study on the German-Czech Euroregion Elbe/Labe from the ESPON CPS project, available online at <https://www.espon.eu/cps>. And for up-to-date information on cooperation:

- <https://www.vvo-online.de/doc/VVO-Broschuere-Boehmen-Elbe-Labe-Ticket.pdf>
- <https://www.kr-ustecky.cz/jizdenka-labe-elbe/ds-98825>

For harmonisation of timetables and ticketing see e.g. Interreg project CONNECT2CE: <https://www.interreg-central.eu/Content.Node/CONNECT2CE.html>

Establishment of a cross-border transport associations

Type of tool	Organisational & governance
Relevant obstacles	Mainly lack of tariff integration, inadequate ticket pricing and passenger information
Specific type(s) of adverse effect	Higher than necessary ticket prices, no cross-border tickets, insufficient cross-border coordination of transport services
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	Especially borders of AT, DE, CH, FR
Other relevant tools	Setting up one-sided transport associations to facilitate cooperation across borders; Key contact person/organisation as multiplier and one-stop-shop; Other cross-border structures for stable cooperation

In a domestic context, transport associations are cooperative organisational grouping of public authorities and/or transport providers, based on public or private law. The main aim is to establish integrated tariff zones with harmonised tickets and fares, but sometimes also to provide public transport jointly and in a coordinated way.

Within a cross-border context, however, truly joint transport associations rarely exist.

At the border between France and Switzerland, in the Greater Geneva cross-border agglomeration, public transport operators from the Swiss Cantons of Geneva and Vaud as well as from the neighbouring French departments of Ain and Haute-Savoie have established a cross-border transport association (Unireso) between 2001 and 2006. Since 2006, Unireso introduced an integrated tariff allowing travellers to use buses, trolleybuses, trams, trains and boat shuttles on Lake Geneva with a single ticket. Unireso comprised a so-called “all Geneva zone” and various other “regional zones”. With the start of the Léman Express in December 2019 and the strengthening of cross-border railway passenger transport in Greater Geneva, a complete overhaul of the tariff system took place. As a result, the former zone-system of Unireso has been abandoned. As from December 2019, a new two-tier system of tariff integration exists within the Greater Geneva: tariff integration within the Canton of Geneva through Unireso and cross-border tariff integration through the new Léman Pass. Moreover, the former Unireso transport association was in fact split into two separate transport associations. These two transport associations are now managed by the Swiss company “Transport Associations Management Ltd” created in 2019. Aside from managing both transport associations, the tasks of GCT include the drawing up of traffic accounts as well as the distribution and accounting of fare revenues.

Within the EUREGIO “Salzburg-Berchtesgadener Land-Traunstein” (DE-AT), different national and regional legislations on public transport as well as an asymmetric cooperation between a federal state (Austria) and two counties (Bavaria) are complicating the set-up of a joint cross-border transport association with integrated tariffs. Partners from both sides of the border are intensively cooperating since 2015 for finding an

institutional-organisational and financial solution capable of "bridging" the complex situation. This transport association should be capable of jointly ordering the means of public transport and applying a uniform tariff system covering the cross-border area. For this, also the establishment of an EGTC was examined as potential solution.

Related case studies:

- Geneva (Switzerland) - Annemasse (France)

For a still ongoing process on setting up a cross-border transport association, see e.g. the case study on the German-Austrian EUREGIO Salzburg-Berchtesgadener Land-Traunstein from the ESPON CPS project, available online at <https://www.espon.eu/cps>.

3.2. Joint management structures

Establishment of new joint organisations for different CBPT tasks

Type of tool	Organisational & governance
Relevant obstacles	Mainly legal and administrative obstacles
Specific type(s) of adverse effect	Often combinations of different adverse effects such as symmetric responsibilities, multiple actors and/or different national legal provisions hamper cooperation without a joint structure
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations, obstacles were reported especially for borders of DE, CZ and PL</i>
Other relevant tools	Interstate agreements on the provision of services; EGTC; EEIG; Key contact person/organisation as multiplier and one-stop-shop; Other cross-border structures for stable cooperation

Cooperation between public transport organising authorities and/or transport providers from both sides of a border is one step towards improving CBPT. Such cooperation often still faces limitations and challenges due to national restrictions and legal frameworks. Trilateral border areas reinforce this challenge. Thus, setting up joint management organisations aims to overcome challenges from different and possibly incoherent national frameworks. They enable joint management of public institutions or service provision across the border. Due to the variety of cooperation formats across the EU and beyond, only a few solutions can be highlighted.

The above challenges were one reason for the introduction of European Grouping of Territorial Cooperation (EGTC). Another EU-wide alternative may be the European Economic Interest Grouping (EEIG). Both tools are discussed below in separate sections. The Societa Europaea (SE) is another legal form derived from EU law. However, being a stock company, it is primarily dedicated to large-scale cooperation.

Another solution is the use of legal tools provided for by bi- and multilateral interstate agreements based on the Council of Europe's Madrid Outline Convention, which also support the establishment of cross-border bodies with or without an own legal personality. These are mainly available in the Nordic countries and along a number of Western European borders. For instance, the Karlsruhe Agreement supports the establishment of "groupings for local cross-border cooperation" (GLCT, in French) that may also be entrusted with tasks relating to CBPT. A direct application for CBPT is frequently observed at the border between France and Switzerland.

A good and unique example is the joint transport organising authority for cross-border bus services in parts of the Greater Geneva cross-border agglomeration. The "GLCT Cross-border Public Transport" was established by French and Swiss transport authorities based on the Karlsruhe Agreement. The GLCT is a public law based structure under French law based in Archamps (FR), whose mission is to manage a larger number of cross-border

bus lines (i.e. lines 64, 66, 68, D, F, M, N, T, T71, T72, T73, T74) on behalf of the GLCT member organisations from France and Switzerland (i.e. Canton of Geneva, Canton of Vaud, Auvergne Rhône-Alpes Region, Pays de Gex Community of Communes, Genevois Community of Communes). Its main tasks are the joint ordering of bus services and the preparation of related tendering procedures. Moreover, the GLCT is also a member of the two-tier system of tariff integration that exists within the Greater Geneva since December 2019 (see the tool ‘Establishment of a cross-border transport associations’).

Another less formal example from the same area is the establishment of a joint “Political Steering Committee” for the cross-border tramway line 17 Geneva - Annemasse, which plays an important role in cooperative management of all aspects relating to the establishment, operation and financing of this new service established in 2019. This committee is provided for in a cross-border cooperation agreement concluded in 2019 between the Canton of Geneva and the Agglomeration Community Annemasse (also based on the Karlsruhe Agreement).

Establishing joint organisations based on the Madrid Outline Convention rather than one of the EU tools at other borders, especially in Eastern Europe, would first require the conclusion of bilateral or multilateral interstate agreements.

In certain situations, national law offers solutions, provided that it allows participation in foreign structures (e.g. in limited liability companies).

The common feature of these solutions is that they have legal personality so they can participate independently in legal transactions. They can also independently carry out:

- planning,
- establishing and
- ordering and operating public transport services.

The formal requirements are, first of all, authorisation under national law to cooperate in the above-mentioned legal forms. In addition, the format must be suitable for carrying out public transport tasks. Since it is a question of cooperation within the framework of binding legal forms, it is important to establish clear rules for cooperation and for the resolution of potential conflicts.

Political support of the involved entities is a key success factor for establishing such a structure. Developing a long-term perspective for cooperation and communicating it to political and administrative decision-makers is important. Ultimately, success depends on the people, their persuasiveness, willingness to learn and mutual trust.

The potential benefits are primarily:

- 1) a single entity responsible for transport projects,
- 2) bundling competences in a single entity,
- 3) preventing fragmentation of competences,
- 4) creating a single partner for communication.

Related case studies:

- Geneva (Switzerland) – Annemasse (France)
- Berlin (Germany) – Kostrzyn (Poland)

- Johannegeorgenstadt (Germany) – Karlovy Vary (Czech Republic)
- Zittau (Germany) – Bogatynia (Poland)
- Saarbrücken (Germany) – Sarreguemines (France)
- Verín (Spain) – Arcos de Valdevez (Portugal)

Further information:

- Barth, Emanuel, How international borders affect local public transport Analyses and evaluations of cross-border agglomerations in Switzerland, France and Germany, 2014 (<https://www.nsl.ethz.ch/wp-content/uploads/2017/08/eth-47111-02.pdf>), p.134
- Explanatory Report to Protocol No. 3 to the European Outline Convention on Transfrontier Cooperation between Territorial Communities or Authorities concerning Euroregional Co-operation Groupings (ECGs) (<https://rm.coe.int/16800d3837>)
- Protocol No. 3 to the European Outline Convention on Transfrontier Co-operation between Territorial Communities or Authorities concerning Euroregional Co-operation Groupings (ECGs) (https://www.coe.int/en/web/conventions/full-list/-/conventions/webContent/en_GB/7767269)
- COUNCIL REGULATION (EC) No 2157/2001 of 8 October 2001 on the Statute for a European company (SE), OJ. L 294 of 10.11.2001, p. 1–21

For an example of an agreement based on the Madrid Outline Convention see the Karlsruhe Agreement: <https://www.bijus.eu/?p=9981>

For the Interreg Trans-Border project a governance proposal for the CZ-DE-PL border area was analysed: [https://www.interreg-central.eu/Content.Node/Home/.../Documents/Cooperating-on-cross-border-passenger-transport-for-better-connections-to-TEN-T-\(T2\)/Government-structures-Saxony-Lower-Silesia.pdf](https://www.interreg-central.eu/Content.Node/Home/.../Documents/Cooperating-on-cross-border-passenger-transport-for-better-connections-to-TEN-T-(T2)/Government-structures-Saxony-Lower-Silesia.pdf)

For further information on the Joint Geneva cross-border metropolitan area transport authority see the description in the 'Good Practices' deliverable of the ESPON CPS project, available online at <https://www.espon.eu/cps>

For another example see Societa Europaea BBT SE (Galleria di Base del Brennero – Brenner Basistunnel BBT SE): www.bbt-se.com/

European Grouping of Territorial Cooperation (EGTC)

Type of tool	Organisational & governance
Relevant obstacles	Especially administrative obstacles, sometimes national legal obstacles
Specific type(s) of adverse effect	Asymmetric responsibilities, multiple actors and/or different national legal provisions hamper cooperation without a joint structure
Phase	<i>All phases</i>
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations</i>
Other relevant tools	Establishment of new organisations; EEIG; One-stop-shop; Integrated offers (ticketing / information); Joint planning activities; Lobbying; Funding opportunities

The EGTC legal instrument was introduced in 2006 with the adoption of Regulation (EC) 1082/2006. It allows public entities from at least two countries (EU Member States as well as neighbouring countries) to establish a joint organisational structure with its own legal personality. The principal objective is to facilitate and promote cross-border cooperation at local and regional level without concluding interstate agreements. This allows for a flexible use of the EGTC instrument in general but also for the provision of CBPT. For CBPT an EGTC may serve one or more of the following specific objectives:

- An EGTC for cross-thematic cooperation may act as a moderator or mediator bringing together stakeholders to develop CBPT.
- Or it can conduct studies and pilot actions on CBPT to test demand and raise awareness for CBPT.
- Providing a joint platform for strategic cross-border transport planning.
- Solve obstacles that result from a lack of transport infrastructure, an EGTC can provide the organisational structure that develops the required infrastructure.
- An EGTC may be founded to jointly develop, implement and provide CBPT to overcome administrative asymmetries; it may focus on certain elements of CBPT or address overall management including ticketing etc.

Despite being a legal instrument, the EGTC is considered an organisational and governance tool for mitigating obstacles in developing, implementing, or providing CBPT, since it can help overcome administrative obstacles.

Political support of the EGTC members is a key success factor for establishing an EGTC. Developing a long-term perspective for cooperation and communicating it to political and administrative decision-makers is important. Ultimately, success depends on the people, their persuasiveness, willingness to learn and mutual trust.

Examples of EGTCs that deal with quite different CBPT related issues are:

- Eurodistrict Strasbourg-Ortenau EGTC which ordered the Eurodistrict-BUS;
- the new railway line Dresden-Prague EGTC as driver of planning for a high-speed railway link in the cross-border area;

- EGTC Pons Danubii which developed a cross-border integrated bike sharing system to reduce car travel across the Danube river between Komarno (Slovakia) and Komarom (Hungary);
- EGTC Ister-Granum which created a cross-border ferry connection between Slovakia and Hungary across the Danube;
- EGTC GO at the Italian-Slovenian border which developed a cross-border Public Urban Mobility Plan to overcome barriers to cross-border urban public transport;
- Eurodistrict Pamina EGTC that developed a cross-border mobility platform offering live data for planning domestic and cross-border travel in the region;
- EGTC Euregio Senza Confini which improved cross-border accessibility between Italy and Austria through multimodal services (bike-bus-train).

Related case studies:

- Haparanda (Sweden) – Tornio (Finland)
- Verín (Spain) – Arcos de Valdevez (Portugal)
- Saarbrücken (Germany) – Sarreguemines (France)
- Gorizia (Italy) – Nova Gorica (Slovenia)

Further information:

The EGTC platform of the European Committee of the Regions (CoR) provides detailed guidance on the EGTC instrument including the regulation and examples of EGTCs in the context of transport and CBPT provision. <https://portal.cor.europa.eu/egtc/Pages/welcome.aspx> (for instance in the EGTC Good Practice Booklet and the EGTC Monitoring Report 2018/2019)

Vilmos Oszter, How to establish and operate cross-border public transport in a peripheral rural area?, PTG, 2019, 22 (1), p. 52-65 ([https://www.ejournals.eu/PKGGKPTG/2019/22\(1\)/art/14957/](https://www.ejournals.eu/PKGGKPTG/2019/22(1)/art/14957/))

For the Interreg Trans-Border project a governance proposal for CZ-DE-PL border area was analysed:

- [https://www.interreg-central.eu/Content.Node/Home/.../Documents/Cooperating-on-cross-border-passenger-transport-for-better-connections-to-TEN-T-\(T2\)/Government-structures-Saxony-Lower-Silesia.pdf](https://www.interreg-central.eu/Content.Node/Home/.../Documents/Cooperating-on-cross-border-passenger-transport-for-better-connections-to-TEN-T-(T2)/Government-structures-Saxony-Lower-Silesia.pdf) and
- [https://www.interreg-central.eu/Content.Node/Home/.../Documents/Cooperating-on-cross-border-passenger-transport-for-better-connections-to-TEN-T-\(T2\)/Final-brochure-en-2Cde-2Cslo.pdf](https://www.interreg-central.eu/Content.Node/Home/.../Documents/Cooperating-on-cross-border-passenger-transport-for-better-connections-to-TEN-T-(T2)/Final-brochure-en-2Cde-2Cslo.pdf)

European Economic Interest Group (EEIG)

Type of tool	Organisational & governance
Relevant obstacles	Especially administrative obstacles, sometimes national legal obstacles
Specific type(s) of adverse effect	Asymmetric responsibilities, multiple actors and/or different national legal provisions hamper the cooperation without a joint structure
Phase	<i>All phases</i>
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations</i>
Other relevant tools	Establishment of new organisations; EGTC; One-stop-shop; Integrated offers (ticketing / information); Joint planning activities

The European Economic Interest Grouping (EEIG) is a legal entity based on EU law and introduced under the Council Regulation (EEC) 2137/85 as of 25 July 1985. It is designed to facilitate cooperation of companies and other economic entities across EU borders. Article 3 of the regulation defines the purpose of an EEIG, which “shall be to facilitate or develop the economic activities of its members and to improve or increase the results of those activities; its purpose is not to make profits for itself.” To-date about 2,100 EEIGs are listed by the EEIG Information centre, working across all economic sectors. Most existing EEIGs involve small and medium-sized enterprises.

Since the main task of an EEIG is to develop the economic activities of its members, it has more of an auxiliary function, namely to support its members, coordinate them and promote their economic activities. This does not prevent the participation of public bodies (regional authorities, public enterprises, etc.). An EEIG with exclusively public-law institutions is also possible.

Thus, the EEIG is generally flexible, also for the provision of CBPT. An EEIG can coordinate cooperation between public transport companies. An EEIG can also be a legal form for a consortium of companies wishing to compete jointly for public transport service contracts. It may serve one or more of the following objectives:

- Support planning and development of transport infrastructure to improve infrastructure.
- Provide transport related services that may facilitate smooth cross-border transport of goods and people.
- Provide CBPT to overcome administrative asymmetries; it may focus on elements of CBPT provision or may address overall management including ticketing, etc.

Despite being a legal instrument, the EEIG is an organisational and governance tool for mitigating obstacles in developing, implementing, or providing CBPT, since it can help overcome administrative obstacles. It may however not make profits for itself, which limit its room for manoeuvre.

A written agreement is needed to set-up the EEIG and rules of cooperation must be laid

down. In addition, EEIG tasks must fall within the catalogue in the 1985 Regulation.

To date, there are only a few EEIGs with a transport focus that may give further inspiration for CBPT. These include:

- The Rail Freight Corridor Rhine-Alpine, offering management and information services and acting as a Corridor-One-Stop-Shop for rail freight along the TEN-T corridor;
- The Interest Community of the Railway Link Berlin-Gorzów EEIG that aimed to improve railway transport for people and freight in the area (which ceased to exist in 2014 with the aim to transform into an EGTC);
- The Europlatforms EEIG developing logistic platforms as nodal transport infrastructure;
- The "Brenner Base Tunnel EEIG" (BBT EEIG) was founded by the Austrian and Italian transport ministers to carry out planning for the Brenner Base Tunnel from Innsbruck to Franzensfeste. In December 2004, it was transformed into the Brennero – Brenner Base Tunnel (BBT SE) responsible for constructing the tunnel.

To sum up, the EEIG can only be considered if the partners act independently and only need an authority that serves (especially cross-border) project coordination. This makes sense if the project is carried out jointly, but each partner wants to take responsibility for its own part (e.g. by creating a separate organisation for this on both sides of the border).

Related case studies:

- Berlin (Germany) – Kostrzyn (Poland)
- Zittau (Germany) – Bogatynia (Poland)
- Innsbruck (Austria) - Brenner/Brennero (Italy)

Further information:

- Regulation (EEC) 2137/85: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31985R2137&from=EN>
- https://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/cb_rail_connections_en.pdf
- European EEIG Information Centre: <https://www.libertas-institut.com/en/eeig-information-centre/>
- <https://www.corridor-rhine-alpine.eu/about-us.html>
- <https://www.ihk-ostbrandenburg.de/zielgruppeneinstieg-unternehmer/kooperationen/interessengemeinschaft-ostbahn-transoderana-evtz--2408862>
- https://www.europlatforms.eu/?page_id=150
- <https://www.bbt-se.com/en>
- Allgäu-Tirol Viales Land EWIV (www.vialesland.com)

Key contact person/organisation as multiplier and one-stop-shop

Type of tool	Organisational & governance
Relevant obstacles	Mainly administrative & organisational obstacles
Specific type(s) of adverse effect	Asymmetric responsibilities and/or multiple actors hamper cooperation and require complex governance solutions
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations</i>
Other relevant tools	Establishment of new organisations; EGTC; EEIG; Integrated offers (ticketing / information); Joint planning activities; Lobbying; Political support

Joint structures as outlined in the previous tool descriptions, enable one (or a few) key contact persons to act as a one-stop-shop. Such people are often employed by the joint structure and represent it, either as director or, if the structure has multiple tasks, as a thematic expert or head of department. Without a joint established structure, a key contact person may be designated on both sides of the border. This could be an interim solution towards more integrated structures and aim to bundle and simplify communication on CBPT across the border.

Such key contact persons are known from different policy fields, especially given complex governance structures, such as regional energy managers. With complex source-problem-effect relationships, one-stop-shops and/or key contact person(s) can help to overcome obstacles for effective and demand-driven CBPT. The benefit of designated key contact persons lies in making resources explicitly available to addressing the CBPT challenge, building competence and capacity, which in turn requires political backing and commitment at local/regional level. The objective is to ease communication on CBPT services and coordinate stakeholder actions.

For CBPT either a joint structure acting as a one-stop-shop, or a key contact person can combine communication needs:

- **Lobbying for border region CBPT needs.** Especially during planning and developing, national authorities may have to be convinced to invest in CBPT. Key contact persons and one-stop-shops are a means to initiate communication with higher levels and prepare positions to raise awareness for border region transport needs.
- **Enhancing communication between key stakeholders through adequate formats.** Overcoming obstacles to CBPT provision often requires communication among several key players from different levels of government and transport agents including agencies and service providers or infrastructure developers.
- **Acting as regional key contact and information source.** During different phases of CBPT, information needs change. This may include information from and towards (potential) users and joint (multi-lingual) information.

- **Mobilising CBPT key actors and upholding momentum in the ongoing operation.** This task is often crucial if many actors from both sides and different levels of government are involved. These actors usually focus on national and regional public transport, leaving CBPT as a ‘side aspect’.

For instance, the Interregional Alliance for the Rhine-Alpine Corridor EGTC acts as a contact for its members, which is visible in some of its tasks. These include ‘combining and focusing the joint interests of its members towards national, European and infrastructure institutions’ and ‘providing a central platform for mutual information, exchange of experience and encounter’.

The transport association Aachen (AVV) hosts euro-regional transport cooperation in the Euregio Maas-Rhine. It collaborates with partners of the Euregio from Belgium and the Netherlands to develop solutions to local public transport based on the ‘Euro-regional local transport plan’. Apart from publishing the cross-border public transport network and multi-lingual information, this coordination unit works on challenges due to different technical and administrative framework conditions in the trilateral region.

In its toolbox, the ARPAF project ‘Crossborder’ suggests appointing a mobility manager or team that has clear responsibility for cross-border transport communication.

Related case studies:

- Maastricht (Netherlands) – Aachen (Germany)
- Hisdasnémeti (Hungary) – Kechnec (Slovakia)
- Verín (Spain) – Arcos de Valdevez (Portugal)
- Johanngeorgenstadt (Germany) – Karlovy Vary (Czech Republic)
- Copenhagen (Denmark) – Malmö (Sweden)

Further information:

For the example of the Interregional Alliance for the Rhine-Alpine Corridor see <https://www.egtc-rhine-alpine.eu/organisation/>

For the euro-regional coordination unit at AVV see <https://avv.de/de/ueber-uns/organisation/kooperationen>

3.3. Collaboration between key actors

Political support from local and regional players

Type of tool	Organisational & governance
Relevant obstacles	Especially organisational and administrative obstacles, possibly also national legal obstacles
Specific type(s) of adverse effect	Incoherent implementation of EU legislation, different national provisions, asymmetric cooperation constellations, structural and administrative culture differences
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations</i>
Other relevant tools	<i>Principally linked to all tools involving local and regional players</i>

Transport organising authorities planning and developing cross-border transport services face particular challenges. Especially when no cross-border service exists, it is difficult for them to assess the initial demand that would justify a new service. Conflicting interests and national or regional policy objectives on CBPT might create additional uncertainty. Several obstacles in the inventory as well as the case study on the cross-border tramway line 17 Geneva – Annemasse show that this can considerably hamper or delay the set-up of CBPT.

Under these conditions, it is important that local and regional politicians express their commitment to promoting cross-border integration. This way, they provide the political backing transport organising authorities need. A political declaration or letter of intent can be a starting point. Ideally, the declaration is supported not only by leading local and regional politicians but by the entire parliament to express support under different political majorities.

Alliances of local and regional supporters such as businesses, chambers of commerce, transport, environmental or passenger associations can also draft and sign their own declarations. These substantiate the political declaration and further strengthen planning practitioners in their day-to-day efforts.

Political support can differ depending on the focus of activities:

- It can aim at **community building** within a country or in different countries in the border region. Here, political support contributes to building trust and to backing planners at local and regional levels.
- Political support can also aim **across the border**. If players on one side of the border are more reluctant and do not see the added value, it can be an invitation for cross-border dialogue.
- Finally, political support can have a strong **vertical dimension** and aim at higher level authorities and ministries. If local and regional players from different countries join forces and express their common interest ('one region – one voice'), it sends a

strong message which cannot be ignored so easily.

Political support is no one-off action. It should be granted from the very beginning of the planning phase and maintained during implementation. Especially when demand does not immediately increase after the start, critics might argue for suspension. As cross-border public transport is not a mandatory task at any administrative level but additional and voluntary, the pressure of justification can be high. Monitoring and regular progress reports to politicians and the public can reduce this pressure. For this, it is important to consider both the interests of single municipalities and regions as well as the wider and common cross-border perspective.

The joint declaration of the state of Brandenburg and Lubuskie Voivodship signed by high-ranking politicians in 2009 provides political support and commitment to improve cross-border public transport. Although it is not legally binding, it defines objectives for four cross-border connections, providing a political framework for planning practitioners in Germany and Poland.

Interreg projects can play an important role in supporting commitment and analytical needs. They can support an in-depth (ex-ante/ex-post) demand analysis and enable testing for new connections. As already happened many times, positive results of Interreg pilot actions can convince public authorities to continue the experimental cross-border service or to integrate it in regular regional/cross-border services.

Related case studies:

- Geneva (Switzerland) – Annemasse (France)
- Berlin (Germany) – Kostrzyn (Poland)
- Zittau (Germany) – Bogatynia (Poland)
- Badajoz (Spain) – Entroncamento (Portugal)
- Lille (France) – Tournai (Belgium)

Other information is available through Interreg programme portals and single projects, e.g. <https://www.interreg-central.eu/Content.Node/CONNECT2CE.html> or <https://www.interreg-central.eu/Content.Node/TRANS-BORDERS.html>

Networks and permanent working groups or roundtables with relevant players

Type of tool	Organisational & governance
Relevant obstacles	<i>All obstacles requiring strategic & structured exchange</i>
Specific type(s) of adverse effect	Especially with a lack of cross-border coordination
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations</i>
Other relevant tools	Especially establishment of one-sided and joint organisations; Cooperation between transport associations; EGTC; EEIG; Integrated offers (ticketing / information); Joint planning activities; Better coordination

Networks and roundtables are examples of formats to facilitate more intense and structured collaboration between key stakeholders. Networks typically focus on collaboration between institutions, whereas roundtables are also used to enhance cooperation between institutions and civil society. These formats are often used to complement other tools such as (new) organisational structures or to prepare further CBPT services. Frequently, stable cooperation structures are even a prerequisite to implement networks and roundtables under a strategic approach and to provide for targeted exchange. Cross-border structures, whether specifically dealing with transport or working cross-thematically on regional development (e.g. Euroregions), can be adequate facilitators of such dialogues. Examples illustrate that these networks and roundtables may be implemented at different levels with specific formats for different purposes connected to CBPT development and provision:

European Coordinators for TEN-T core network corridors facilitate such dialogue between multiple stakeholders along a transnational corridor to support timely implementation of complex infrastructure projects. This acknowledges the complexity of these projects and differences in approaches if more than one Member State is involved. Both aspects are also relevant for CBPT service development.

At **transnational** level, the Alpine Convention has a continuous structure for transport exchange, i.e. the Transport Working Group. This first elaborated and negotiated the Transport Protocol of the Alpine Convention and since then has addressed challenges in supporting sustainable transport of persons and goods in the Alps.

EgroNet is an example of a **cross-border public-transport network** in the border region between the Czech Republic, Bavaria, Saxony and Thuringia. It is a cooperation network for a cross-border mobility system developed in the 1990s and to-date cooperates with 50 transport service providers in 15 counties and cities and transport associations. Simultaneously, it acts as a one-stop-shop by offering integrated information and tickets for the region.

A good example is also the **GLCT Greater Geneva**, acting as joint governance structure

for the Franco-Swiss cross-border agglomeration Greater Geneva. It was established in 2013 on grounds of the multilateral Karlsruhe interstate agreement on cross-border cooperation. The GLCT's permanent working groups focus on cross-border public transport and mobility, spatial planning and ecological transition. The GLCT takes care of the multi-annual development projects of the Greater Geneva but only acts as a 'facilitator'. It initiates and informs the political processes and mobilises the competent authorities to carry out infrastructure works or other development measures, while considering the views of the organised civil society.

For example, at local level, the **PONTIBUS EGTC** acted as a mediator for the planning and preparation of a bridge over the Ipel River between Slovakia and Hungary, creating mutual understanding among authorities about the infrastructure development, which is still under way in 2021.

For the regional **transport association Aachen (AVV)** improving cross-border public transport is among its tasks. To develop cross-border ticket offers, integrate transport services across the border and ensure up-to-date timetable information, the AVV has a regular working group with all actors responsible for CBPT. This working group has proven very successful to ensure continuous exchange. In addition, the AVV is responsible for euro-regional coordination of local public transport in the Euregio Maas-Rhine (see also tool 'key contact person / one-stop-shop').

Related case studies:

- Maastricht (Netherlands) – Aachen (Germany)
- Geneva (Switzerland) – Annemasse (France)
- Haparanda (Sweden) – Tornio (Finland)
- Copenhagen (Denmark) – Malmö (Sweden)
- Szombathely (Hungary) – Oberwart (Austria)
- Lichkov (Czech Republic) – Gorzanów (Poland)
- Johanngeorgenstadt (Germany) – Karlovy Vary (Czech Republic)
- Vidin (Bulgaria) – Craiova (Romania)
- Lille (France) – Tournai (Belgium)

Further information:

For examples of cross-border organisations facilitating networks and roundtables see the example of PONTIBUS EGTC in <https://portal.cor.europa.eu/egtc/ressources/Documents/EGTC-Good-Practice-Booklet.pdf>

For the Alpine Convention see <https://www.alpconv.org/en/home/organisation/thematic-working-bodies/detail/transport-working-group/>

For the Euregio Maas-Rhine see <https://euregio-mr.info/de/themen/mobilitaet/aachener-verkehrsverbund.php> and <https://avv.de/de/ueber-uns/organisation/kooperationen>

For EgroNet see <https://egronet.de/service/egronet>

Other cross-border structures for stable cooperation

Type of tool	Organisational & governance
Relevant obstacles	Especially administrative obstacles, sometimes national legal obstacles
Specific type(s) of adverse effect	Asymmetric responsibilities, multiple actors and/or different national legal provisions hamper cooperation without a joint structure
Phase	<i>All phases</i>
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations</i>
Other relevant tools	Establishment of new organisations; EGTC; EEIG; Key contact person; Joint planning activities; Lobbying; Funding opportunities

Joint management structures have been introduced above (see tools in the section 3.2 'Joint structures for managing CBPT'). They are the most integrated organisational format for stable cooperation and allow planning, managing and operating CBPT services. However, such structures may not always be feasible or realistic. This may be due to the need to test different options, a lack of capacity and resources for institutionalisation or a lack of time (e.g. if setting up an institution is too time-consuming) to tackle CBPT challenges. At the same time, stakeholders may wish to establish a stable framework for cooperation to avoid CBPT challenges being neglected if there are other urgent topics or crises. In such cases less formal structures may be a feasible alternative.

Stakeholders may cooperate in a **network model** using their existing institutions and agreeing on cooperation routines, e.g. working group, networks etc., which may be formulated in an agreement to enhance stability.

An agreement on a **joint unit** which could be hosted at any stakeholder is another alternative (see the example of the AVV euro-regional coordination unit in the tool 'key contact person / one-stop-shop').

Political institution building through an agreement on a **committee** or **international conference** may also provide the backing to work on CBPT challenges. The Öresund Committee is such an example, though it does not focus on transport but generally represents the cross-border region's interests. The Committee is institutionalised through statutes and relies on supporting bodies (in this case a commission and a secretariat).

The most adequate structure for stable cooperation depends on resources and time, objectives and urgency. Overall, stable cooperation structures contribute to better governance in a cross-border region and are helpful to creating trust that may be needed to set-up more integrated structures.

Interreg projects can be used to develop the most adequate structure and reflect on the alternatives for stable cooperation structures. In the programming period 2021-2027 the objective of 'a better Interreg governance' (ISO 1) offers support. Examples for such analysis have been performed by the Interreg Central Europe project Trans-Borders, which included a **feasibility study** for establishing a permanent information and decision-making body working on passenger rail transport between Saxony (Germany) and Lower

Silesia (Poland).

Related case studies:

- Haparanda (Sweden) – Tornio (Finland)
- Copenhagen (Denmark) – Malmö (Sweden)
- Lichkov (Czech Republic) – Gorzanów (Poland)
- Vidin (Bulgaria) – Craiova (Romania)
- Zimnicea (Romania) – Svishtov (Bulgaria)

Further information:

For an analysis of stable cooperation structures of the Trans-Borders Interreg project see [https://www.interreg-central.eu/Content.Node/Home/.../Documents/Cooperating-on-cross-border-passenger-transport-for-better-connections-to-TEN-T-\(T2\)/Government-structures-Saxony-Lower-Silesia.pdf](https://www.interreg-central.eu/Content.Node/Home/.../Documents/Cooperating-on-cross-border-passenger-transport-for-better-connections-to-TEN-T-(T2)/Government-structures-Saxony-Lower-Silesia.pdf)

For the Öresund Committee see e.g. <https://edoc.hu-berlin.de/handle/18452/8626>

For the International Lake Constance Conference see <https://www.bodenseekonferenz.org/de/home>

4. Planning tools

4.1. Establishing new and consolidating existing services

Coordination and integration of domestic timetables

Type of tool	Planning
Relevant obstacles	Mainly administrative and socio-economic obstacles affecting the demand
Specific type(s) of adverse effect	Lacking cross-border coordination of existing services
Phase	Planning / Development / Implementation / Provision
Modes of transport	Combination of transport modes
Geographical coverage	All border relations, especially those where connecting services are important
Other relevant tools	New structures for stable cooperation; Knowledge database; Integrated offers

Timetables in public transport are coordinated or even integrated to reduce waiting times and improve connectivity between local and regional or regional and long-distance transport, for example. However, the main priority is usually on domestic transport systems. A particular challenge is therefore to embed cross-border services in domestic timetables. This refers not only to the first and last stop but also to all services along the way where other public transport services can be reached.

The degree of harmonisation for domestic timetables can differ. The following approaches are not mutually exclusive but can overlap and complement each other:

- **Full integration:** The most integrated approach consists of planning a joint timetable that addresses cross-border and domestic regional and/or national services from an integrated perspective. This implies a common planning process for domestic and cross-border services.
- **Partial integration:** Individual domestic public transport services of neighbouring border regions are integrated so seamless cross-border passenger transport is facilitated. Such a system still requires a high level of cross-border coordination between and regular updating of domestically defined timetables, especially in view of annual or seasonal timetable changes.
- **Coordination:** If planning processes do not run in parallel, it is of particular importance to exchange information about planning well in advance to allow the neighbouring country/region to respond or at least consider the plans.
- **Passenger information:** If no coordination and integration of domestic services can be achieved and the cross-border dimension in public transport is expected to remain weak in the mid-term, transport operators and transport associations can at least compile and provide information for potential target groups, e.g. on the most relevant connections, ticketing, particularities of the public transport system or interesting additional services and offerings (see also tool 'bilingual information').

Regardless of the envisaged level of integration, it is paramount to proceed pragmatically. Especially in countries that must consider long-term concessions or contracts, windows of opportunity can be scarce and should be exploited efficiently. This also applies where domestic interval-systems for public rail passenger transport strongly differ, which further challenges timetable harmonisation. Furthermore, it is important to keep in mind that more integration can also reduce domestic flexibility and limit the capacity to respond to domestic changes and short-term needs. Pragmatic and solution-oriented approaches can help to balance different requirements and interests.

A good example illustrating the benefits of coordination is the case study on the cross-border line S3 of the Tyrol suburban railway. It connects at a high frequency the Austrian city of Innsbruck to the Italian border station Brenner / Brennero station. If timetables with Italian-sided connecting trains were not well-coordinated, this service would be less beneficial for the population living in this area.

The Tornio-Haparanda (Finland-Sweden) case study aims to develop a public transportation system that is integrated and coordinated across different modes of transportation, connecting towns and cities within the countries and across national borders. Due to separate procurement of different parts of the local-regional transport system and solely within-country regional buses, coordination with the cross-border local bus service (ring line) is hampered. A single travel centre at the border mitigates this as it serves as meeting and exchange point for local, regional and cross-border buses and allows easy access to Haparanda train station.

The bus connection between Kechnec (Slovakia) and Hidasnémeti (Hungary) illustrates the difficulties of coordination between different modes. The timetable has been defined after consultation between the region and the municipalities. It has been changed to address changes to a connected national bus service. At the same time, this implied that original connections at Hidasnémeti railway station are not working anymore.

Related case studies:

- Innsbruck (Austria) – Brenner/Brennero (Italy)
- Haparanda (Sweden) – Tornio (Finland)
- Szombathely (Hungary) – Oberwart (Austria)
- Hidasnémeti (Hungary) – Kechnec (Slovakia)
- Oradea (Romania) – Debrecen (Hungary)

For examples see e.g.

<https://www.vrn.de/verbund/presse/pressemitteilungen/pm/003039/index.html>

<https://www.zvon.de/de/Fahrplanseiten-ENT-Region/>

4.2. Joint planning activities

Lobbying towards national and regional governments and EU institutions

Type of tool	Planning
Relevant obstacles	Especially national legal obstacles
Specific type(s) of adverse effect	Incoherent implementation of EU legislation, different national provisions, asymmetric cooperation constellations
Phase	Planning / Development / Implementation / Provision
Modes of transport	Rail
Geographical coverage	<i>All border relations</i>
Other relevant tools	Political support; Analysis of framework conditions; EGTC; Joint strategy; Funding opportunities; Knowledge base

The position of cross-border transport services in national politics is often weak and receives less attention than domestic transport services. Rail services especially depend on national policies. Hence, it is important that local and regional players from border regions join forces and lobby for their interests and specific needs in national capitals. EU institutions also play a role, e.g. through the EU's TEN-T policy, the Connecting Europe Facility (CEF) and European Territorial Cooperation (Interreg) as EU funding instruments. Various success factors are to be considered for lobbying.

Lobbying is a long-term task and goes far beyond a few meetings with key decision makers. It requires a high level of cooperation and coordination at various levels. For this, a border region needs to speak with one voice ('one region – one voice'). This requires a strong alliance of local and regional players from the border region who commit to a shared vision and ambitious yet realistic goals.

Different perspectives are relevant for successful lobbying: (i) cross-border activities with local/regional players in the border region; (ii) domestic activities between local/regional and national players within the respective national administrative system; (iii) cross-border activities at national and EU level. The three perspectives complement each other and are intertwined, e.g. when national players support activities at EU level or when EU tools are used to raise awareness at national level.

Lobbying is about communication. This implies that not only knowledge about the planning system and the technical requirements is needed but also in-depth understanding of the cultural context.

Especially at the beginning the variety of stakeholders might be overwhelming. Hence, a comprehensive analysis of all players can be helpful, mainly answering two key questions: How much influence has each player? And how supportive are they? Players that are very supportive with a lot of influence should be approached first. Less supportive but influential players need to be convinced. Supportive but non-influential players can be easily taken on board. Less supportive and non-influential players can be ignored for the time being.

However, the positions and influence of players may change as well as the political context or other circumstances, e.g. elections. Hence, it is important to constantly monitor the framework conditions and respond flexibly to change.

The German-Dutch border region of EUREGIO, together with Dutch and German partners, currently develops and implements a lobbying strategy to raise awareness and increase visibility of cross-border railway links between Münster/Dortmund and Enschede at national and EU levels. The strategy aims at including the railway links in the TEN-T network and obtaining EU funding for upgrading and extending the infrastructure. Strategy development and implementation takes place under the Interreg-funded project 'EuregioRail'.

Related case studies:

- Lichkov (Czech Republic) – Gorzanów (Poland)
- Domodossola (Italy) – Spiez (Switzerland)
- Narvik (Norway) – Kiruna (Sweden)
- Oradea (Romania) – Debrecen (Hungary)
- Vidin (Bulgaria) – Craiova (Romania)
- Berlin (Germany) – Kostrzyn (Poland)

For further information on examples see:

the project 'EuregioRail' <https://www.euregio.eu/de/projekte/euregiorail/>

the railway link Dresden-Prague <https://www.nbs.sachsen.de/index.html>

Elaboration of a joint strategy for developing and planning CBPT

Type of tool	Planning
Relevant obstacles	Mainly administrative obstacles
Specific type(s) of adverse effect	Lack of coordination and integration with domestic public transport services
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations</i>
Other relevant tools	Lobbying national governments and EU institutions; Better coordination of domestic infrastructure planning; Integrated tools; Analysis of framework conditions

In the past, CBPT was often considered, planned and implemented as singular services. This was often because individual actors and promoters advocated for a certain line for specific reasons (e.g., tourism promotion, school transport). In such cases, integrating this service into existing public transport services was either ignored completely in the planning phase, or was disregarded due to its complexity. As a result, these services lack integration with domestic public transport services on several levels:

- The origins, stops and termini may be isolated from other public transport services, i.e., preventing passengers to change to other (domestic) services.
- A lack of timetable coordination with other (domestic) public transport services hamper changes between services.
- Tickets for the cross-border service are not integrated with domestic ticketing, so the user has to buy specific tickets.

Such practical disadvantages for users can be prevented if stakeholders have a common strategy for designing CBPT in the planning phase and explicitly consider this as an integrated transport service from the beginning. Furthermore, such a strategic approach means missing links can easily be identified and suitable services to fill the gaps can be developed. For instance, this could be a missing bus or train service to the next TEN-T rail node just beyond the border. The timetables and frequencies of the new bus service could be planned to match the timetables of rail services already operating along the TEN-T corridor.

The development of such a joint strategy should be based on a comprehensive SWOT analysis of current transport services (domestic and cross-border) in the border region with a common understanding of joint problems and challenges in the transport sector. It would also be helpful to develop common goals (what do we want to achieve?).

The common strategy may eventually be more or less formal:

- a letter of intent signed by the relevant actors with a description of the planned project, its goals, characteristics and responsibilities,
- action plan with a detailed description of the initiative, time and resource plan, overview of work steps and allocation of tasks,
- comprehensive intermodal transport plan for the entire border region, reflecting

integration of the new service into the existing and planned transport system.

Highly formal plans should be agreed by the public bodies on both sides of the border as a starting point for implementation.

Whatever the degree of formality, once a joint strategy has been agreed, the implementation steps (implementation agenda) should be identified, with responsibilities and tasks allocated to the relevant actors.

Such a joint strategic approach offers several advantages:

- It ensures integration of a new CBPT into domestic transport services.
- It demonstrates the need for the new CBPT in the context of the entire transport system in the border region.
- The formal approach generates commitment and ownership among all actors in the border region.
- On the basis of the joint strategy, steps to realise the CBPT can be identified more easily and responsibilities and tasks can be distributed.

The level of formality depends on the project. If the initial construction or upgrading of physical infrastructure such as railway tracks is a prerequisite for introducing a CBPT, a strategic formal procedure is recommended. In this respect, railway and tram projects often require more formality than bus or ferry projects.

The elaboration of a joint strategy is easier if there is already cooperation between the actors (e.g., networks and roundtables); if not, it is recommended to create such networks. Often, however, they emerge through the process itself.

A good example is the joint strategic planning and development of a comprehensive cross-border public passenger transport system for the Greater Geneva cross-border agglomeration at the Franco-Swiss border. Greater Geneva has one of Europe's densest and most integrated CBPT systems, comprising trains, trams, buses and boats as well as an extensive cross-border rapid rail transit network. Joint planning activities take place within the public-law based cross-border body GLCT Grand Genève (see tool 'Networks and permanent working groups or roundtables with relevant players'), while coordinated development activities are carried out on grounds of multiannual 'Agglomeration Projects' for the Greater Geneva.

A good example for comprehensive CBPT planning in a multilateral context is Luxembourg, which has elaborated so-called 'strategic plans for cross-border mobility' (SMOT) with all neighbouring partners (i.e. Walloon region in Belgium, Grand Est region in France, federal states of Rheinland-Pfalz and Saarland in Germany). These plans were the information basis for concluding bilateral interstate agreements defining the concrete engagements for improving CBPT, including the identification of infrastructure projects and related investments or other initiatives such as service improvements.

Another good example of a strategic approach is planning for the Puttgarden-Rødbyhavn ferry between Germany and Denmark. Planning covered not only the ferry and port infrastructure, but also the upgrade of the entire hinterland of the two ports (i.e., from Hamburg towards Puttgarden, as well as from Copenhagen towards Rødbyhavn).

Territorial impact assessment (TIA) can be useful in this context. Extending TIA beyond borders enhances knowledge creation and provides further insights in the strategic planning approach.

Related case studies:

- Geneva (Switzerland) – Annemasse (France)
- Luxembourg (Luxembourg) – Athus (Belgium),
- Puttgarden (Germany) – Rødbyhavn (Denmark)
- Haparanda (Sweden) – Tornio (Finland)
- Szombathely (Hungary) – Oberwart (Austria)
- Verín (Spain) – Arcos de Valdevez (Portugal)

Further information:

For the Trans-Borders Interreg project: <https://www.interreg-central.eu/Content.Node/TRANS-BORDERS.html>

For EuregioRail see <https://www.euregio.eu/de/projekte/euregiorail/>

For Territorial Impact Assessment (TIA) see <https://www.espon.eu/tools-maps/espon-tia-tool>

Better coordination of domestic infrastructure planning

Type of tool	Planning
Relevant obstacles	Mainly administrative obstacles
Specific type(s) of adverse effect	Lack of coordination and integration with domestic public transport services
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations</i>
Other relevant tools	Lobbying national governments and EU institutions; Elaboration of a joint strategy for developing and planning services

National transport ministries are responsible for further development and planning of their national transport infrastructure. To this end, they usually draw up new transport development plans or regularly update existing plans. As each country follows its own agenda and timetable, coordination with neighbouring countries takes place only sporadically and often only for special lighthouse projects and TEN-T corridors.

This often leads to cases where, for example, country A wants to upgrade a railway line (e.g., from one to two tracks, electrification, better safety technology), but country B does not want to upgrade the line on its territory. Also neighbouring countries may want to extend a cross-border railway line in principle, but country A follows a different timetable than country B.

An example illustrating this is the case study on the cross-border railway line 70 connecting Luxembourg City to Athus in Belgium. Luxembourg makes significant efforts to eliminate railway infrastructure and passenger transportation capacity limitations. However, modernisation has unavoidable side effects that adversely affect the train passengers since several years (e.g. frequent service interruptions due to construction works or new technical equipment of rail rolling stock). Moreover, rail infrastructure modernisation works on the Belgium side (i.e. for other purposes) add to the difficulties for the cross-border service. The whole situation is aggravated by a lack of an inter-municipal cross-border structure that could effectively “voice” the difficulties experienced by users.

Although the actors from the border regions do not draw up the national transport plans, they can identify incompatible planning at an early stage and should point out such dilemmas to the national governments as soon as possible.

In order to avoid such situations, border regions could organise lobbying in the capitals at an early stage or could draw up cross-border transport plans for their border region and introduce these into the national planning process, thereby better coordinating national transport planning in neighbouring regions.

Better coordination of domestic infrastructure planning should not only cover content (what is to be planned), but also time (when shall infrastructure be built or upgraded?).

Although regional stakeholders and representatives know the problems in the transport sector in their regions best, border regions are often treated as less important in national planning. But actors from the border regions have a decisive role to play. They should be

proactive and not wait for invitations to formal participation (because then it is too late to introduce new projects or to change planned projects).

The better prepared border region actors are, the greater influence they can exert on national planning. A jointly adopted action plan or cross-border transport development plan (see previous tool) would be extremely helpful and a good basis for lobbying. Examples of lobbying by some EGTCs, such as the Interregional Alliance for the Rhine-Alpine Corridor and the new railway link Dresden-Prague, show this is also needed along TEN-T Corridors.

Related case studies:

- Luxembourg (Luxembourg) – Athus (Belgium)
- Haparanda (Sweden) – Tornio (Finland)
- Szombathely (Hungary) – Oberwart (Austria)

Further information:

Trans-Borders Interreg project: <https://www.interreg-central.eu/Content.Node/TRANS-BORDERS.html>

EuregioRail: <https://www.euregio.eu/de/projekte/euregiorail/>

For the example of the Interregional Alliance for the Rhine-Alpine Corridor see <https://www.egtc-rhine-alpine.eu/organisation/>

4.3. Joint knowledge base

Database with experience from other regions' CBPT

Type of tool	Planning
Relevant obstacles	<i>All obstacles</i>
Specific type(s) of adverse effect	<i>All types of adverse effects possibly existing in other regions</i>
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations with a focus on borders with some similar framework conditions (whether legal, administrative, economic, geographic...)</i>
Other relevant tools	Preparatory tool for most other tools, especially on Pragmatic bridging; Joint planning; CBPT consolidation; Information; Ticketing

Developing and providing CBPT services faces different issues compared to domestic transport, both for extending existing domestic services across the border or new cross-border services to be developed. Obstacles and challenges when establishing or running CBPT services arise mostly from:

- the specific territorial context of a multi-dimensional border reality;
- different legal frameworks in neighbouring countries;
- different policy-making contexts and administrative systems;
- cross-border demand differs from domestic demand;
- low and fragmented cross-border public transport compared to domestic public transport.

Over time, the number of CBPT services has been increasing, tackling these particularities. This has led to a rich experience from which insights can be drawn including:

- **Interreg projects.** keep.eu provides information on Interreg projects under all cooperation programmes since the year 2000. The database can be searched for key words, cooperation priorities and borders. Links to more in-depth project information are usually available.
- **b-solutions.** The EU Commission initiative is managed by the Association of European Border Regions (AEBR) and addresses obstacles to cross-border cooperation. A compendium offers insights from seven examples touching different aspects of CBPT and sustainable mobility challenges in a cross-border context. Work on three more examples has been launched.
- **European Committee of the Regions (CoR).** CoR offers many resources and studies on issues for regions and cities in the EU. Cross-border issues, including cross-border transport, are among those covered by many resources.

- **Case studies.** This study is accompanied by 31 case studies illustrating governance, demand, operational structures and business models of CBPT services. Apart from describing the state-of-the-art, these case studies illustrate specific challenges and obstacles with solution approaches.
- **National experts & databases.** Authorities of some Member States engage in capacity building on cross-border cooperation by offering databases, project support or expert advice. Examples are the Central European Service for Cross-border Initiatives (CESCI) with offices in Hungary, Slovakia and Serbia, the Mission Opérationnelle transfrontalière (MOT) in France and cross-border related Demonstration Projects of Spatial Planning (MORO) of the Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR) in Germany.
- Based on inspiration from these or other sources, further steps towards planning and developing CBPT may be undertaken more easily.

Related case studies:

- Thessaloniki (Greece) – Sofia (Bulgaria)
- Oradea (Romania) – Debrecen (Hungary)
- Badajoz (Spain) – Entroncamento (Portugal)

Further information:

- Interreg project database: keep.eu
- *b-solutions*: <https://www.b-solutionsproject.com/>
- CESCI: <https://cesci-net.eu/>
- MOT: <http://www.espaces-transfrontaliers.org/>
- BBSR: https://www.bbsr.bund.de/BBSR/EN/research/programs/programmes_node.html
- CoR: <https://cor.europa.eu/en/about/Pages/default.aspx>

Factsheets on own activities in relevant languages

Type of tool	Planning
Relevant obstacles	Especially, legal and administrative obstacles
Specific type(s) of adverse effect	Adverse effects caused by insufficient knowledge of the neighbouring CBPT framework
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	Border relations with different native languages
Other relevant tools	Preparatory tool for many other tools, especially on Pragmatic bridging; Joint planning; CBPT consolidation; Information; Ticketing; Bilateral agreements

Administrative and governance structures vary widely between EU Member States and neighbouring countries. They are often difficult to understand for stakeholders across the border, especially if these are not deeply and regularly involved in cross-border interaction in their working area. Similarly, national legal frameworks for cross-border interaction differ and are not easy to grasp across the border. Often difficulties even start with the correct translation of terminology and processes. Complexity increases further if national (or regional) legal frameworks for public transport (and CBPT) are subject to substantial changes. Examples for such changes are in the case studies 'Luxembourg City (Luxembourg) – Athus (Belgium)', 'Geneva (Switzerland) - Annemasse (France)' and 'Saarbrücken (Germany) – Sarreguemines (France)'.

This may result in insufficient knowledge of the neighbour's framework, which then hampers the setting up or ongoing operation of CBPT.

Developing information on the framework and activities relevant for CBPT development in different languages seeks to make domestic information more accessible and thus encourage intensified cooperation and better understanding of each other's framework, responsibilities, terms and processes. Bilingual information is thus relevant throughout planning and development to improve the knowledge of decision-makers, planners and service providers and later, when implementing and operating a service, also those delivering the CBPT service. Offering translations of activities, terms and framework conditions into the neighbour's language can thereby be a preparatory activity to:

- intensify cross-border cooperation, and making it more effective;
- facilitate coordination of CBPT development;
- prepare information for adjustments in national legal frameworks if needed;
- support understanding for the need and content of a bilateral interstate agreement, if this is required.

Interreg projects may be a means to support such development by providing resources to identify the information to be translated and implementing the translation. The 'Manual for

cross-border public transportation' of the Central Europe Interreg project Trans-Borders is an example for developing multi-lingual common understanding of processes for developing a CBPT.

However, very focused factsheet like information is often necessary. The Academy for Territorial Development in the Leibniz Association (ARL) webpage may offer a guide:

- It shows country profiles for many European countries in a standardised way with the main features of national planning systems ([country profiles](#)).
- It contains the ARL glossary on planning terminology between German and English. English translations could be used as a reference for translations into other languages ([Glossary](#)). This glossary builds on a glossary of planning terminology in the Baltic Sea Region.

For CBPT development this information may give initial indications before engaging in additional translations that may then focus on transport sector specifics not sufficiently covered by these descriptions and glossaries.

Related case studies:

- Geneva (Switzerland) – Annemasse (France)
- Luxembourg (Luxembourg) – Athus (Belgium)
- Saarbrücken (Germany) – Sarreguemines (France)
- Gorizia (Italy) – Nova Gorica (Slovenia)
- Szombathely (Hungary) – Oberwart (Austria)
- Hidasnémeti (Hungary) – Kechnec (Slovakia)
- Berlin (Germany) – Kostrzyn (Poland)
- Puttgarden (Germany) – Rødbyhavn (Denmark)

Further information:

- Trans-Borders Interreg project manual: [https://www.interreg-central.eu/Content.Node/Home/.../Documents/Cooperating-on-cross-border-passenger-transport-for-better-connections-to-TEN-T-\(T2\)/Final-brochure-en-2Cde-2Cslo.pdf](https://www.interreg-central.eu/Content.Node/Home/.../Documents/Cooperating-on-cross-border-passenger-transport-for-better-connections-to-TEN-T-(T2)/Final-brochure-en-2Cde-2Cslo.pdf)
- For the ARL: <https://www.arl-international.com/> and information on the Baltic Sea Glossary: <https://www.arl-net.de/de/projekte/commin-%E2%80%93-promoting-spatial-development-creating-common-mindscapes>

Analysis of framework conditions

Type of tool	Planning
Relevant obstacles	Especially legal and administrative obstacles
Specific type(s) of adverse effect	Especially insufficient knowledge & incoherent legal and administrative frameworks
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations</i>
Other relevant tools	Preparatory tool for many other tools, especially on Pragmatic bridging; Joint planning; CBPT consolidation; Information; Ticketing; Bilateral agreements

Legal and administrative obstacles are the most frequent challenges for CBPT development. Their precise roots vary and may lie in a lack of understanding and knowledge of the framework conditions. These conditions may be related to the legal framework for CBPT, administrative and governance structures relevant for planning, and processes to be followed when developing transport services.

In addition, sustainable CBPT service provision needs to meet the demand of border area citizens and other potential users. Thus, understanding the needs and potential demand also matters for analysis of the framework (see also tool 'Monitoring of recent and ongoing developments').

Thus, planning and developing CBPT should involve a sound analysis of these different framework conditions. Analysis through feasibility studies may include one or several of the relevant framework conditions.

Interreg projects are one means to conduct such feasibility studies, which may be laid down in strategies or guidebooks or manuals depending on the focus. Complementing this, *b-solutions* offers support for analyses of legal frameworks:

- **RUMBOL** is an Interreg Central Europe project addressing regional public transport in peripheral areas (without a cross-border focus) and in view of demographic change – two aspects relevant for many border regions and thus for CBPT. The project's transnational strategy offers insights on user needs (demand) analysis and illustrates data needs that are also relevant for CBPT services.
- The **COMPASS** project includes in Part 1 of its toolbox a proposal for analysing a cross-border region to provide better connections for European passenger transport. It differentiates between objectives, methodology and a checklist.
- The Interreg Central Europe project **CONNECT2CE** has developed three toolboxes, namely on
 - ⇒ improving regional and cross-border railway and public transport connections;
 - ⇒ applying multimodal integrated tariff schemes and ticketing; and
 - ⇒ implementing info-mobility systems.

- Within each toolbox the outline includes descriptions of access points for a targeted analysis of the existing framework (i.e. existing rail services, gaps, tariff schemes, ticketing and information systems).
- The EU Commission initiative **b-solutions** is managed by the Association of European Border Regions (AEBR) and addresses obstacles to cross-border cooperation. Seven CBPT related examples described in the compendium illustrate the need for different access and focal points for framework analyses to address CBPT and sustainable cross-border mobility challenges.

Thus, adequately embedding the analysis of framework conditions into the overall process is crucial, i.e. with a clearly defined aim for the analysis and a tentative understanding of the underlying obstacle. Overall, a sound analysis of framework conditions helps with further steps towards implementing or improving CBPT. It may furthermore help to obtain or ensure support for CBPT needs by public authorities.

All case studies provide a first analysis of existing framework conditions related to the scope, geography and territory of the CBPT service, its demand and benefits, applied governance structures and operational provisions.

Further information from the above examples:

- <http://interreg-central.eu/Content.Node/rumobil.html>
- <https://trimis.ec.europa.eu/project/better-connections-european-passenger-transport>
- <https://www.interreg-central.eu/Content.Node/CONNECT2CE.html>
- <https://www.b-solutionsproject.com/>

Monitoring of recent and ongoing developments

Type of tool	Planning
Relevant obstacles	<i>All obstacles – generally recommended tool</i>
Specific type(s) of adverse effect	Especially insufficient knowledge
Phase	<i>All phases</i>
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations</i>
Other relevant tools	<i>Accompanying many other tools, as one element of a better knowledge base</i>

CBPT service provision is not an end in itself, but always aims to answer a demand for cross-border transport and mobility. Assessing demand and benefits of CBPT is thus relevant in all phases from planning and development, identifying target groups and latent demand, to implementation and provision, to monitoring whether a previously identified demand is verified through user data and whether the CBPT service needs adjustment. Thus, monitoring may not be solely based on the current use of public transport but can include latent demand from the flows of socio-economic exchange relations and other structural characteristics such as disparities between neighbouring border regions. In this context different aspects of the multi-dimensional border reality matter.

Non-exhaustive examples for monitoring are:

- settlement structures and accessibility indicators;
- cross-border traffic (e.g. movements of cross-border workers and other inhabitants of border regions or special groups such as day visitors, tourists and students), to identify latent demand for CBPT;
- user satisfaction with current CBPT;
- demographic, income and unemployment relations between neighbouring border regions to assess expectations of future cross-border flows.

Adequate monitoring helps CBPT in many respects. It can be used to

- justify joint action on CBPT to be initiated by public transport organising authorities;
- identify catchment areas and specific corridors in which CBPT services could be launched;
- determine potentials for effective and cost-efficient provision of services (i.e. economic viability of CBPT);
- design fine-meshed services corresponding to the actual needs of (potential) CBPT users;
- increase service quality and thereby user satisfaction; and
- support the shift from individual motorised to more sustainable public transport.

The role and benefits of monitoring activities for CBPT development or operation is considered by all case studies. Some illustrate particular aspects such as an analysis of cross-border traffic flows or a service quality improvement. In the case of the cross-border tramway line between Geneva (Switzerland) and Annemasse (France), for example, the French-sided route of the line was carefully designed on grounds of an analysis of the population density and the needs of a proximity service. This allowed the tram service to

capture most of the French-sided resident population realising cross-border movements to Geneva city centre. The success of this approach is evident, since only a few weeks after the commissioning of the tram line it has become one of the busiest CBPT in the Greater Geneva.

A lack of understanding of the needs for CBPT may lead to ineffective provision with adverse effects for cross-border cooperation and integration.

It is however not advised to conduct extensive monitoring far beyond costs, use and user satisfaction separately for each CBPT service. Instead, other monitoring tools and sources should be used. Examples, both with a focus on mobility and more generally are:

- **Nordic Cross-border Statistics** publishes a selection of indicators on 'Nordic Mobility', which illustrate challenges and access points for monitoring.
- The **statistical data portal of the Greater Region (Statistiques Grande Région)** collects data from five national and regional statistical offices and provides information about cross-border flows and territorial dynamics for the five involved partner regions (Luxembourg, Grand Est region, Wallonia region, federal states of Saarland and Rheinland-Pfalz). The data covers six themes, i.e. area and population, employment and labour market, society, economy, income and prices and the environment.
- The **Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR)** in Germany has implemented two projects aiming to develop cross-border monitoring for German border regions including their neighbouring regions across the border. Seven pilot regions participated in the feasibility assessment. Two border areas (German-Dutch and Upper Rhine) were involved in the indicator catalogue development and data collection. The second study includes a manual for border region statistics. The BBSR will make available statistical information on all border regions in the near future (as of November 2021).
- The **Statistical Office in Rzeszów** (Poland) gives an example for cross-border statistics at the external border with Ukraine.

All case studies cover monitoring, especially regarding the demand and scope of the CBPT service.

Further information:

- For the multi-dimensional border reality see the Scientific report of the ESPON CPS project, available online at <https://www.espon.eu/cps>.
- <https://www.norden.org/en/publication/nordic-cross-border-statistics>
- For the Greater Region: <https://www.grande-region.lu/portal/de/>
- For BBSR monitoring approaches:
 - ⇒ Results of the first study:
https://www.bbsr.bund.de/BBSR/EN/publications/ministries/BMI/2019/moro-praxis-12-19-dl.pdf?__blob=publicationFile&v=1
 - ⇒ Information on establishing a spatial monitoring system for neighbouring regions:
<https://www.bbsr.bund.de/BBSR/DE/forschung/programme/moro/studien/2019/raumbeobachtungssystem/01-start.html#Ansprechpartner>
- For the Polish-Ukrainian border: <https://rzeszow.stat.gov.pl/en/official-statistics-on-the-european-unions-external-border-on-the-territory-of-poland-595/>

Identify funding opportunities

Type of tool	Planning
Relevant obstacles	<i>All obstacles</i> that require physical investment or resources beyond those available to the public authorities
Specific type(s) of adverse effect	<i>All adverse effects</i>
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations</i>
Other relevant tools	All tools which need additional resources, including tools to develop the knowledge base, joint strategy development, preparation of legal or organisational tool implementation

CBPT provision requires funding, for planning and developing a service and for running it. For the latter different tariff schemes and support from providers and the commissioning authorities have to be investigated (see above tool ‘monitoring’ in relation to ‘costs’). The following focuses on the preparatory phases that may tackle (1) infrastructure investments to overcome obstacles due to a lack of sufficient infrastructure and especially (2) soft tool implementations such as feasibility studies, monitoring, etc. Such funding opportunities may also be a means to mitigate any lack of capacity at local and regional level to facilitate CBPT establishment or to improve the knowledge base about framework conditions relevant for CBPT.

The most prominent source of funding for CBPT may be Interreg:

- **Transnational Interreg programmes** frequently offer opportunities to implement local and regional actions and studies together with other regions. In 2014-2020 transport related specific objectives were considered in most transnational programmes. This way, e.g. the Central Europe Programme has supported projects explicitly tackling cross-border transport links related to infrastructure and services.
- Many **Cross-border Interreg programmes** similarly offer opportunities to enhance cross-border public transport. These programmes often also include funding for local infrastructure investments.

The **ESPON programme** implements targeted studies involving local and regional stakeholders. Stakeholders from EU Member States and participating countries can create a group to apply for a study on a topic of European spatial planning and focusing on their regions.

If a CBPT development is linked to the TEN-T network the **Connecting Europe Facility (CEF) for Transport** may be an alternative funding source for studies and infrastructure investment support. CEF Transport focuses on cross-border projects and projects aiming at removing bottlenecks or bridging missing links in the TEN-T network. It also supports action to improve the use of infrastructure, reduce the environmental impact of transport, enhance energy efficiency and increase safety.

For territories that are part of **EU Macro-Regions** an online portal offers an online tool to support existing funding opportunities to improve economic, social and territorial cohesion in the European Union and its Macro-Regions. This tool differentiates topics, including mobility and transport, stakeholders and the country origins of potential applicants. For the Alpine Region and implementation of EUSALP, the Alpine Region Preparatory Action Fund (ARPAF) provides funding for action group 4 on mobility.

For Visegrad Group countries, the corresponding fund promotes regional cooperation (encompassing the Czech Republic, Hungary, Poland and Slovakia) and between these countries and other countries, especially the Western Balkans and Eastern Partnership regions (Visegrad Fund). Though without an explicit transport focus, cooperation on transport is not excluded.

Complementing public funding CBPT may also require private funding models as illustrated by the infrastructure development for the ferry link between Greenmore (Ireland) and Greencastle (UK).

Related case studies:

- Badajoz (Spain) – Entroncamento (Portugal)
- Bedous (France) – Canfranc (Spain)
- Domodossola (Italy) – Spiez (Switzerland)
- Budapest (Hungary) – Zagreb (Croatia)
- Zimnicea (Romania) – Svishtov (Bulgaria)
- Greenmore (Ireland) – Greencastle (UK)

Further information:

Examples for transnational Interreg projects:

- Trans-Borders Interreg project: <https://www.interreg-central.eu/Content.Node/TRANS-BORDERS.html>
- <https://www.interreg-central.eu/Content.Node/CONNECT2CE.html>

For Interreg projects and programmes concerning CBPT see <https://keep.eu>

For targeted analyses of the ESPON programme see <https://www.espon.eu/targeted-analyses>

For CEF see <https://ec.europa.eu/inea/en/connecting-europe-facility/cef-transport> and https://cinea.ec.europa.eu/connecting-europe-facility/transport-infrastructure_en

For funding opportunities in territories covered by macro-regional strategies see <https://www.euro-access.eu/>

For specific Macroregional funding for the Alpine Region see <https://www.alpine-region.eu/news/alpine-region-preparatory-action-fund-arpaf-first-five-projects-selected>

For the Visegrad Fund: <https://www.visegradfund.org/about-us/the-fund/>

5. Information and marketing tools

5.1. Demand related measures

Multilingual information about the border region, its destinations and activities

Type of tool	Information and marketing
Relevant obstacles	Mainly administrative obstacles and other organisational obstacles
Specific type(s) of adverse effect	Mainly a lack of cross-border coordination
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	Especially border relations with different native languages
Other relevant tools	Mainly other demand and ticketing related measures; One-stop-shop

CBPT service provision is not an end in itself, but always aims to answer a demand for cross-border transport and mobility. Meeting the demand of citizens in a border region and possibly the demand of specific target groups (e.g. tourists, students, commuters) is thus crucial to create benefits from a CBPT service, which in turn contributes to operating a service continuously. Examples show that a lack of awareness about the scope of existing CBPT and conditions may hamper the use of these services, which contributes to their underuse. A lack of knowledge may relate to

- insufficient information on timetables of cross-border and domestic public transport, i.e. regarding links;
- tickets, i.e. what to consider for cross-border tickets, how to buy them;
- more general cross-border information, that may initiate more cross-border exchange and thus demand for CBPT.

This lack of knowledge may occur at any border due to different public transport systems but is enhanced in neighbouring border regions with different native languages. Thus, good connectivity across the border is not only about service links but also adequate information. This includes making information about related domestic public transport available in the language of the neighbouring country. Identifying such information should be from the passenger perspective.

A pragmatic bridging approach could be to link existing information systems rather than immediately aiming at a joint system and extend the existing systems with bi- or multilingual information and cross-border ticketing.

The ‘**Linking Danube**’ project of the Interreg Danube Transnational Programme 2014-2020 has developed a model for a cross-border multimodal information system which may provide inspiration for information to be included in other systems. This approach is under development using the Open Journey Planning method and builds on the EU White Paper on Transport vision of a Single European Traveller Information System. The toolbox for implementing info-mobility systems developed by the Interreg Central Europe project

CONNECT2CE complements this with a stepwise proposal for making timetables more accessible across borders.

More generally, digital solutions may support CBPT service access, especially considering border area languages to mitigate mental barriers to using public transport across the border. An advanced example is the cross-border mobility platform of the **Eurodistrict Pamina EGTC**. This offers live information on transport and mobility in the region in French, German and English and includes information on bus/train stops and connections, ferries, e-mobility chargers, congestion, car sharing opportunities, rental bikes and biking networks.

Finally, in regions with high **cross-border commuting** enhancing information on cross-border public transport may also focus on employees. The ARPAF 'Crossborder' project gives an example for specific mobility offers for employees that can be implemented by companies relying on cross-border commuters. This includes approaches to offer information on mobility packages and employee mobility advice, etc.

Related case studies:

- Haparanda (Sweden) – Tornio (Finland)
- Szombathely (Hungary) – Oberwart (Austria)
- Maribor (Slovenia) – Bleiburg (Austria)
- Lille (France) – Tournai (Belgium)
- Johannegeorgenstadt (Germany) – Karlovy Vary (Czech Republic)
- Berlin (Germany) – Kostrzyn (Poland)

Further information:

- White Paper on Transport: https://ec.europa.eu/transport/sites/transport/files/themes/strategies/doc/2011_white_paper/white-paper-illustrated-brochure_en.pdf
- Linking Danube project: <http://www.interreg-danube.eu/approved-projects/linking-danube> & <http://www.interreg-danube.eu/approved-projects/ojp4danube>
- CONNECT2CE info-mobility guide: <https://www.interreg-central.eu/Content.Node/CONNECT2CE.html>
- Cross-border mobility platform Eurodistrict Pamina EGTC: <https://www.eurodistrict-pamina.eu/fr/portail-de-mobilite-transfrontalier.html#.YRYwBUBCRaQ>
- The ARPAF Crossborder project review on digital tools: https://www.alpine-region.eu/sites/default/files/uploads/project/1027/attachments/archetype_factsheet_s_new_v1.pdf
- ARPAF Crossborder project toolbox for company mobility management: https://www.alpine-region.eu/sites/default/files/uploads/project/1027/attachments/toolbox_for_company_mobility_management_all_languages.pdf

Integrated offers

Type of tool	Information and marketing
Relevant obstacles	Mainly administrative obstacles and other organisational obstacles
Specific type(s) of adverse effect	Mainly a lack of cross-border coordination or harmonisation of systems
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>Possibly all borders</i>
Other relevant tools	Mainly other demand and ticketing related measures; Coordination of timetables; One-stop-shop

A lack of integration of CBPT may occur in different aspects and can hamper the use of CBPT services in many respects, e.g. leading to

- delayed or prolonged travel times (lack of timetable coordination);
- more costly travel (lack of adequate ticketing);
- inadequately addressed target groups (the timetable is inadequate for some groups, e.g. commuters or lack of multi-modality integration);
- misleading information for passengers (insufficient integration of services/providers);
- difficulties for disabled persons to access cross-border transport, due to different recognition of special discounts or free-of-charge travel.

Often a lack of integration results from administrative or organisational obstacles, especially a lack of coordination between existing services with different governance structures, routines and processes organising public transport. In some cases, integration may not be achieved due to legal obstacles, e.g. that hamper setting up a joint cross-border transport association. At the same time, joint institutions, as illustrated by the example of the Greater Geneva cross-border agglomeration, drive coordination and cooperation through their role as facilitator or even as joint transport organising authorities for CBPT (i.e. see the GLCT's set-up in this area).

Approaches to timetable coordination are explicitly described in 'Coordination and integration of domestic timetables'. Apart from avoiding waiting times when changing transport lines or modes integrated approaches need to consider the needs of target groups, which may require particular business hours (see tools on demand analysis & monitoring).

Integrated cross-border ticketing aims to simplify the use of cross-border transport services for passengers, which is in turn can increase the use of services. Previous domestic ticket zones and/or types of tickets may need to be overhauled. The toolbox on integrated tariff and ticketing developed by the Interreg Central Europe project **CONNECT2CE** describes a stepwise proposal to tackle different aspects of integrated tariffs and tickets. This includes conceptual work and analyses as well as financial solutions, the rules to be applied and technical solutions.

Integrated approaches increasingly also mean **e-ticketing**, which comes with new

challenges, as national or regional solutions apply different standards. Overcoming hurdles from these different systems was recently tested by a cross-border Interreg project in the Euregio Maas-Rhine and further development aims to develop a cross-border, smartphone and ID-based ticketing system.

Finally, integrated approaches mean also looking for alternatives combining multiple modes. This refers to travel outside peak hours, combining different modes (e.g. as frequently offered by transport associations) or bridging gaps in public transport offers. The **integrated information system of Eurodistrict Pamina EGTC** is an example for multimodal integration. It includes information on bus, rail and ferry services as well as e-charging stations, bike rental, parking, etc. The **Mária Valéria Bike Sharing** system is the first truly cross-border bike sharing offer, in Štúrovo (Slovakia) and Esztergom (Hungary), which significantly eases travel across the border, especially for commuters arriving at the railway station in Esztergom. The system allows the rented bike to be taken from any dock and returned to any station. The stations are near popular sites in both cities. Different passes, tickets and all information is in Hungarian, Slovak and English.

Related case studies:

- Haparanda (Sweden) – Tornio (Finland)
- Szombathely (Hungary) – Oberwart (Austria)
- Oradea (Romania) – Debrecen (Hungary)
- Lille (France) – Tournai (Belgium)
- Copenhagen (Denmark) – Malmö (Sweden)
- Geneva (Switzerland) – Annemasse (France)

Further information:

- CONNECT2CE tariff and ticketing guide: <https://www.interreg-central.eu/Content.Node/CONNECT2CE.html>
- For a cross-border, smartphone and ID-based ticketing system: <https://infoportal.mobil.nrw/technik/etickets-in-nrw/eticketing-in-europa-und-grenzueberschreitende-loesungen.html>
- Cross-border mobility platform Eurodistrict Pamina EGTC: <https://www.eurodistrict-pamina.eu/fr/portail-de-mobilite-transfrontalier.html#.YRYwBUBCRaQ>
- Cross-border bike rental system: <https://www.skhu.eu/funded-projects/public-cross-border-bicycle-sharing-system-in-esztergom-and-sturovo> and <https://mariavaleriabike.eu/en/stations>

6. Tools for tariff integration and ticketing

6.1. Demand related measures

Target group-oriented ticketing

Type of tool	Ticketing
Relevant obstacles	Mainly organisational obstacles, sometimes connected with demographic, geographic and socio-economic conditions
Specific type(s) of adverse effect	Unbalanced travel patterns, low service profitability, insufficient tariff harmonisation
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations</i>
Other relevant tools	Integrated offers; Bilingual information; Integrated timetables

Success of (cross-border) public transport services depends on adequately addressing different target groups. This is a particular challenge in border regions without CBPT because the demand and target groups might be (partly) unknown or at least need to be reached out to. However, demand analysis is not only important when planning and developing a CBPT but also while operating or closing a pilot phase. This allows the provider to further develop tickets and adjust them to target group needs. Projects under the umbrella of cross-border cooperation programmes (Interreg A) usually allow for such analyses.

An important target group are daily commuters who live in one country and work in another. They need monthly or annual passes, maybe in combination with an automatic subscription. Companies can also be involved in designing ticketing schemes to promote public transport, e.g. through company-wide subscriptions with discounts for employees or other special offers.

Another important target group are tourists. As an incentive to use cross-border public transport services, they could receive tickets for public transport upon arrival or be offered discounts for attractions or an integrated ticket for local public transport at the destination. Convenient transportation of bikes is another important component to be considered in cross-border tourist areas. Examples are the seasonal cross-border tourism bus 'Mozart Express', which operates between Reit im Winkl (Germany) and the City of Salzburg (Austria) and the EgroNet ticket, which includes one free bike per passenger.

In addition, the needs of less frequent travellers and small groups or families should be considered, especially clear and transparent pricing and free tickets for children up to a certain age. The integration of additional services can partly compensate for other disadvantages of public as compared to private transport such as longer travel time or connections.

Other examples could be specific mobility offers (ARPAF 'Crossborder' – parking

management, motivational packages, ecopoints and upgraded infrastructure including new multimodal offers such as for cycling).

Related case studies:

- Reit im Winkl (Germany) – Salzburg (Austria)
- Johannegeorgenstadt (Germany) – Karlovy Vary (Czech Republic)
- Copenhagen (Denmark) – Malmö (Sweden)
- Greenmore (Ireland) – Greencastle (UK)

Further information:

A detailed toolbox for mobility management at company level is available in EN, DE, FR, IT, SI at <http://www.alpine-region.eu/projects/arpaf-crossborder>.

For an example of different tickets see the case study on the German-Czech Euroregion Elbe/Labe from the ESPON CPS project, available online at <https://www.espon.eu/cps>.

6.2. Stronger coordination of domestic fare systems

Consideration of differences in fare levels and national ticketing systems

Type of tool	Ticketing
Relevant obstacles	Mainly administrative and socio-economic obstacles
Specific type(s) of adverse effect	Lacking harmonised fare systems, strong socio-economic disparities
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes</i>
Geographical coverage	Especially relevant in border regions with significant economic disparities
Other relevant tools	Integrated offers; Other ticketing tools; Harmonised timetables; Joint knowledge base tools; Bilingual information

Cross-border public transport services are usually not operated in a single transport area but under different national and/or regional ticketing systems. It is therefore important to develop ticketing that considers and builds on the specificities of national and/or regional ticketing systems. For cross-border public transport services to be successful it is important to make the service easy to use. This includes offering a single ticket for the entire border region, assuming a *de-facto* single transport area (see also tool 'integrated offers'). The question is how to find a balance between a fully harmonised system versus sub-systems. This challenge is particularly relevant in border regions with significant economic disparities, e.g. in income or purchasing power. These challenges may also happen with passengers used to different levels of public transport subsidies making public transport cheaper in one country than another, or cost differentials between transport modes such as disincentives to using a car). Other differences may be in access to tickets, their validation or the acceptance of discounts for specific target groups.

Fully harmonised ticketing would mean the same price for a ticket regardless of the place of purchase. However, such a system disadvantages citizens in the economically weaker part of the border region if there are high prices or distortions in pricing in the economically stronger part of the region with low prices or different incentives in view of different philosophies. Different prices for the same ticket create incentives for people to purchase tickets where they are cheapest. The question therefore is how to address socio-economic disparities and different philosophies while at the same time offering similarly attractive tickets on both sides of the border.

An effective way is to define specific conditions for validity: Tickets purchased in the country where they are cheapest are only available for immediate use, i.e., they are only valid for the day they are purchased. In countries where the tickets are more expensive, a more flexible regime can be applied.

Alternatively, tickets could be sold only for immediate use, regardless of where they are purchased. This would also contribute to easy-to-understand terms and conditions.

Both options are suitable tools to prevent cannibalisation and avoids unintended incentives for customers to buy tickets in the country where they are cheapest . A key challenge is to digitalise and introduce online tickets without creating new by-passes for

customers to circumvent the terms and conditions.

Related case studies:

- Maastricht (Netherlands) – Aachen (Germany)
- Lille (France) – Tournai (Belgium)
- Copenhagen (Denmark) – Malmö (Sweden)

Further information:

Case study on the German-Czech Euroregion Elbe/Labe from the ESPON CPS project, available online at <https://www.espon.eu/cps>.

For harmonisation approaches to ticketing see e.g. <https://www.interreg-central.eu/Content.Node/CONNECT2CE.html>

Cross-border tariff systems, unilateral extension of domestic tariff systems and cross-border tickets

Type of tool	Ticketing
Relevant obstacles	Mainly administrative and organisational obstacles
Specific type(s) of adverse effect	Lacking harmonisation of fare systems
Phase	Planning / Development / Implementation / Provision
Modes of transport	<i>All transport modes, especially in multi-modal context</i>
Geographical coverage	<i>All borders</i>
Other relevant tools	Integrated offers; Other ticketing tools; Joint knowledge base tools; Bilingual information

CBPT services are not usually operated in a single cross-border tariff area but under different national and/or regional tariff areas. It is therefore important to develop fares and ticket offers that consider and build on the specificities of the relevant national and/or regional ticketing systems. For cross-border public transport services to be successful it is also important to make ticketing systems as easy as possible. This may include establishing a single tariff area for the entire cross-border region, offering cross-border tickets for specific services or target groups or a mutual recognition of tickets for domestic public transport (see also tool 'integrated offers'). The question is how these options match with the established systems on either side of a border.

Public transport in the Greater Geneva area is an example of a **highly integrated cross-border tariff and ticketing system**. Already in the early 2000s an integrated tariff was introduced enabling travellers to use buses, trolleybuses, trams trains and boat shuttles on Lake Geneva with a single ticket. From December 2019, a new two-tier system was established integrating domestic tariffs within the Canton of Geneva (Unireso) and cross-border tariffs through the Léman Pass. Tickets can be bought covering only parts of the area (e.g. for the Canton of Geneva only), or for specific zone combinations in the case of cross-border journeys. This approach is supported through a joint company managing and coordinating the two transport associations established for Unireso and Léman Pass.

Another alternative is to **extend existing tariff systems across the border**. Several case studies include examples where domestic tariff areas have been extended by one stop across the border. This is the case for the Saarbahn tram-train operating between Saarbrücken (Germany) and Sarreguemines (France), but also for the Tyrol suburban railway operating between Innsbruck (Austria) and Brenner/Brennero border station (Italy). A very specific and Europe-wide unique case is found in Luxembourg, where the domestic regime of free public transport is extended to three border stations in France and Belgium.

Examples for a **mutual recognition of domestic tickets** are found at many borders. In Copenhagen, for instance, the joint **Öresund fare system** covers different zones allowing tickets from one side of the border to be used to 'some extent' in public transport on the other side. The regional **transport association Aachen (AVV)** has created special zones for cross-border links. In cases where a joint concession with a shared service is run across the border, passengers may use the domestic ticket system across the border. While simplifying ticket purchase for users, these systems come with new challenges, e.g. regarding the acknowledgement of different tickets. However, they highlight ways to

acknowledge the benefit of cross-border links.

Lacking such more or less integrated approaches implies alternative solutions, such as **specific cross-border tickets**. These tickets exist at many borders and may be **valid for specific cross-border lines** or target groups only. An example is the national park line in the Elbe-Labe region, which illustrates the complexity for passengers who have to select the correct ticket depending on the border crossing and distance.

Related case studies:

- Saarbrücken (Germany) – Sarreguemines (France)
- Maastricht (Netherlands) – Aachen (Germany)
- Innsbruck (Austria) - Brenner/Brennero (Italy)
- Geneva (Switzerland) – Annemasse (France)
- Lille (France) – Tournai (Belgium)
- Copenhagen (Denmark) – Malmö (Sweden)
- Luxembourg (Luxembourg) – Athus (Belgium)

Further information:

For harmonisation approaches on ticketing see e.g. <https://www.interreg-central.eu/Content.Node/CONNECT2CE.html>

For ticket fares in the Greater Geneva metropolitan area see <http://www.geneva.info/public-transport-tickets/>

For variations of one-line tickets see e.g. <https://www.vvo-online.de/de/tarif-tickets/tarif/Nationalparkbahn.cshtml#accordion-header-6856>

7. Technical tools

7.1. Harmonisation of technical standards

Physical infrastructure	
Type of tool	Technical
Relevant obstacles	Technical obstacles
Specific type(s) of adverse effect	Non-existent or incompatible physical infrastructure, lack of interoperability
Phase	Planning / Development / Implementation / Provision
Modes of transport	Train / Tram / Ferry (port infrastructures)
Geographical coverage	All border regions with railway and port infrastructure
Other relevant tools	Vehicles and their equipment; Analysis of framework conditions; Coordination of planning

Rail-based transport services and ferries require physical infrastructure (tracks, ports). Often these are not available in a border region (e.g., for trams), poorly developed and maintained, or the technical parameters (e.g. electrification, gauge, signalling systems, height of platforms, curve radii, width and depth of port basins) differ on both sides of the border. However, harmonisation is often a prerequisite for the introduction of cross-border train, tram and ferry services.

Therefore, these need to be harmonised very early in the planning and development phase. For existing gaps (missing links) eliminating different standards this should be considered from the beginning. Although this requirement is simple to say, implementation in reality is sometimes more complicated than expected:

- There may be different national norms and standards for technical parameters, which sometimes may even be incompatible.
- Different ideas about the future design of the service may mean the actors find it difficult to agree on standards (e.g. the height of platforms).
- Local conditions such as narrow road cross-sections do not allow uniform standards to be implemented everywhere.
- If the border regions have different economic situations, the richer region may tend towards stricter standards and can finance them, while the poorer region may have problems in financing and thus implementing high standards.
- Normally, construction for physical infrastructure is tendered separately on both sides of the border. This sometimes leads to problems in implementing the technical standards. This applies to the timetable (ideally, the infrastructure on both sides of the border is completed at the same time) as well as to the technology (e.g. different suppliers for safety technology, design of the track bed, etc.). Ideally, implementation should be centrally monitored and controlled by the public authorities.

Establishing new light-rail infrastructures in densely populated areas is particularly challenging, as land ownership must be clarified (i.e. for the purchasing of land) and other public infrastructure (e.g. sewers, cable lines, roads) must be modified. The construction

of the new cross-border tramway Geneva – Annemasse illustrates this.

The situation is complicated, especially for rail services, where there is a close connection between the design of the service, the vehicles to be used and the available physical infrastructure. For example, if low-floor vehicles or longer trains are to be used, station platforms must be prepared accordingly. The case study Innsbruck (Austria) – Brennero (Italy) illustrates this. For years, the system separation point at the railway station Benner/Brennero could only be passed by trains without locomotive change if they were pulled by specially acquired electric locomotives.

Infrastructure also matters for ferries. Here, too, the piers and slipways must correspond to the dimensions of the ships.

It follows that the physical infrastructure, details of the future transport services and the vehicles to be used must be planned early and jointly. Ideally, the standards and technical parameters are defined early on in a feasibility study and then later in joint, cross-border detailed planning. Since national construction law may provide for different participation procedures, deadlines and approval steps, a central body should coordinate implementation to ensure the timely start and end of construction works. In any case, thorough planning should avoid situations where (technical) standards are accepted by the authorities on one side of the border but rejected on the other.

If corresponding physical infrastructure already exists on one side of the border (e.g., existing light-rail tracks for a tramway), but not yet on the other side, the standards and norms of the existing infrastructure should ideally also be applied on the other side (provided there are no legal requirements to the contrary).

It becomes more difficult if incompatible infrastructure already exists on both sides of the border (e.g. railway tracks). Then the question arises as to which standards should be adopted jointly. This often directly affects the investment costs, financing and thus ultimately also implementation.

The question of physical infrastructure is relatively easy to realise if there is a single public transport organising authority that manages implementation of the infrastructure. This was the case, for example, in the two case studies on ferry connections, with Scandlines (Rødbyhavn-Puttgarden ferry) and Carlingford Lough Ferry (Greenore-Greencastle ferry) port infrastructure. The same was true for the tram extension from Strasbourg to Kehl. In contrast, there are greater challenges with cross-border rail links. These require even more extensive preparatory work, for example feasibility studies. A good example is the extension of the Münster-Enschede-Zwolle rail link, where the Euregio, together with local actors, first carried out an Interreg project on Euregio Rail and then commissioned a regional public transport authority (Zweckverband Nahverkehr Westfalen) with the detailed planning.

Other problems emerge when rail track infrastructure is working to capacity or the capacity of central access points (i.e. train stations) is insufficient (in terms of train reception capacity and of ancillary infrastructures for users). The case study on the cross-border railway line 70 that leads from Luxembourg City to Athus in Belgium illustrates this.

Related case studies:

- Innsbruck (Austria) – Brennero (Italy)
- Geneva (Switzerland) – Annemasse (France)
- Luxembourg (Luxembourg) – Athus (Belgium)
- Saarbrücken (Germany) – Sarreguemines (France)

- Greenmore (Ireland) – Greencastle (UK)
- Puttgarden (Germany) – Rødbyhavn (Denmark)
- Johanngeorgenstadt (Germany) – Karlovy Dary (Czech Republic)
- Budapest (Hungary) – Zagreb (Croatia)
- Oradea (Romania) – Debrecen (Hungary)
- Zimnicea (Romania) – Svishtov (Bulgaria)

Further information:

EuregioRail: <https://www.euregio.eu/de/projekte/euregiorail/>

Brenner base tunnel: <https://www.bbt-se.com/en/>

New railway link Dresden-Prague: <https://www.nbs.sachsen.de/en/index.html>

Tram Strasbourg-Kehl: <https://www.kehl.de/stadt/tram/tram-nach-kehl-bauwerke.php>

On the role of integrated planning and infrastructure development: https://shop.arl-net.de/media/direct/pdf/fb/fb_012/fb_012_gesamt.pdf

Rolling stock and their equipment

Type of tool	Technical
Relevant obstacles	Technical obstacles
Specific type(s) of adverse effect	Variety of vehicle types with incompatible equipment
Phase	<i>All phases</i>
Modes of transport	<i>All transport modes</i>
Geographical coverage	<i>All border relations</i>
Other relevant tools	Physical infrastructure

Closely related to physical infrastructure is also the question of the (type of) vehicles and their equipment in cross-border traffic. Theoretically, different vehicles could be used for a cross-border service, but this increases the requirements on physical infrastructure, which must be more flexible to be usable by different vehicles (especially railway and tram systems, but also with some restrictions to ferries). In addition, operational expenses including vehicle maintenance and costs for provision of the service also increase. It is therefore advisable to use uniform vehicle types.

Standardisation concerns different aspects of the vehicle and its technical equipment: the power train (diesel, e-vehicles, hybrid), vehicle size (e.g., vehicle length, number of seats), vehicle range, battery and charging systems in case of e-buses, low-floor technologies and entrance solutions for handicapped people, on-board technical equipment such as (cashless) ticketing and validation systems, passenger information systems (PIS), air conditioning, telematics, exhaust emission standards and others. Some of these standards have a direct impact on the physical infrastructure, and vice versa. Therefore, the physical infrastructure, details of the future transport services and the vehicle types to be used must be planned in detail early and jointly.

To make things even more complicated, some of the technical vehicle standards require certification in all countries concerned. For example, a locomotive must have a permit in both countries to be allowed to operate in cross-border traffic. The case study on cross-border railway line from Luxembourg City to Athus in Belgium illustrates this. The process of equipping Luxembourgish rail rolling stock of passenger trains with ETCS Level 1 led to temporary problems. Different signalling systems in both countries meant that Luxembourg rolling stock newly equipped with ETCS Level 1 could not run to Athus before a lengthy re-homologation process and approval from the Belgian national railway safety authority.

Likewise, the technical equipment must work in both countries, which is not always the case without prior intensive investment or pre-works (for example, cashless ticketing systems). Some technical equipment requires dedicated and specific backend systems (for instance, telematics systems, PIS) and will also impact further internal and external workflows for the operator (for example, the choice of ticketing system will impact workflows for ticket inspections and telematic systems enable predictive maintenance systems which may lead to changes in internal maintenance procedures). Another important question to be answered early on is the financing for vehicle procurement (e.g., 'Opex' or 'Capex'-based), especially if partners from two or more countries are involved. Since these aspects cannot necessarily be taken for granted, the acquisition of vehicles

requires careful planning.

The points raised here illustrate that vehicle procurement has a wide range of impacts on many other processes. The project partners should therefore deal with it intensively at an early stage and agree on the functionalities, equipment features and characteristics.

If separate procurement procedures are envisaged for the vehicles, the tender documents must describe the requirements very precisely and unambiguously. Otherwise, there is a risk that different vehicle configurations will be procured. For this reason, joint procurement is preferable if funding arrangements allow. Alternatively, a single partner may be responsible for vehicle procurement. This partner must ensure that the jointly defined equipment levels and vehicle types are procured in accordance with the agreements. Beyond the question of vehicle types and their equipment, joint procurement has the advantage of economies of scale and thus procurement costs can be reduced. Uniform technical standards also reduce maintenance costs for the vehicles.

All the above-mentioned aspects apply both to the initial procurement of vehicles and to subsequent replacement investments or service extensions later.

Related case studies:

- Innsbruck (Austria) – Brennero (Italy)
- Luxembourg (Luxembourg) – Athus (Belgium)
- Saarbrücken (Germany) – Sareguemines (France)
- Vienna (Austria) – Győr (Hungary)
- Berlin (Germany) – Kostrzyn (Poland)

Further information:

Tram Strasbourg-Kehl: <https://www.kehl.de/stadt/tram/tram-nach-kehl-bauwerke.php>

On vehicles: https://shop.arl-net.de/media/direct/pdf/fb/fb_012/fb_012_gesamt.pdf (paper by Siegmann)

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The EU Open Data Portal (<http://data.europa.eu/euodp/en>) provides access to datasets from the EU. Data can be downloaded and reused for free, for both commercial and non-commercial purposes.

