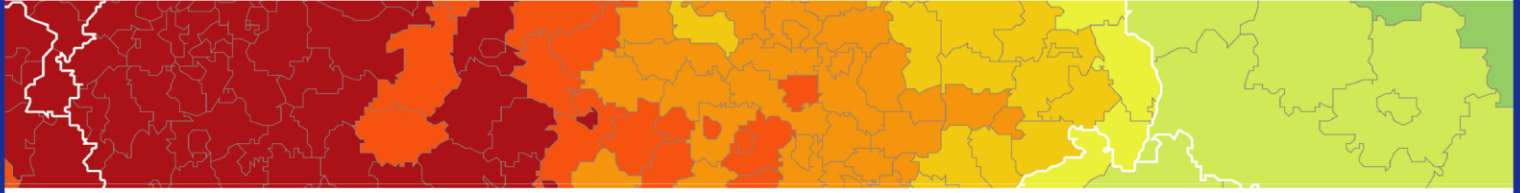


Inspire policy making by territorial evidence



Cross-border Public Services (CPS)

Targeted Analysis

Final Report
Scientific Report

Version 16/11/2018

This targeted analysis is conducted within the framework of the ESPON 2020 Cooperation Programme, partly financed by the European Regional Development Fund.

The ESPON EGTC is the Single Beneficiary of the ESPON 2020 Cooperation Programme. The Single Operation within the programme is implemented by the ESPON EGTC and co-financed by the European Regional Development Fund, the EU Member States and the Partner States, Iceland, Liechtenstein, Norway and Switzerland.

This delivery does not necessarily reflect the opinions of members of the ESPON 2020 Monitoring Committee.

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Acknowledgements

Authors of this report would like to thank the stakeholders of this target analysis, including representatives of Region Sønderjylland – Schleswig, EuRegio Salzburg Berchtesgadener Land Traunstein, Euregio Bayerischer Wald – Böhmerwald -Unterer Unn, Galicia North Portugal EGTC, Bothnian Arc, Development Centre Mursk Sobota, Regional Council of South Karelia, Euroregion Elbe-Labe, Euregio Scheldemond, Coordination Commission for Regional Development for Alentejo, the association of European Border Regions (AEBR) and observer organisations CoR, MOT and DG Regio as well as the respondents to the online survey.

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Annex IX – Case study report – Euroregion Elbe/Labe

Annex X – Case study report – Euregio Scheldemond

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Abbreviations

AEBR	Association of European Border Regions
CESCI	Central European Service for Cross-Border Initiatives
CoR	European Committee of the Regions
CPS	Cross-border public services
EC	European Commission
EEA	European Environmental Agency
EGTC	European grouping of territorial cooperation
ESPON	European Territorial Observatory Network
EU	European Union
GLCT	Groupement Local de Coopération Transfrontalière (Local grouping of cross-border cooperation)
GÖZ	Grenzüberschreitender öffentlicher Zweckverband (Local grouping of cross-border cooperation)
MOT	Mission Opérationnelle Transfrontalière

1 Introduction

The ESPON Targeted Analysis "Cross-border public services" (CPS) aims to support better delivery of these services and to improve awareness about their added value. The analysis of cross-border public services (CPS) across Europe and especially the analysis of CPS in the case study areas of the project's stakeholders illustrate a wide variety of CPS delivered in Europe. CPS can be found at practically every EU internal border and even at some EU external borders.

This report presents the main methodological frameworks applied in the course of this Targeted Analysis. The scientific report aims at introducing the main conceptual frameworks and approaches in order to make it possible to further advance the research on CPS in the future. This report complements the other outputs produced in this project: The main report presents the key findings of the study and the practical guide presents possible steps to consider when establishing and implementing a CPS. Additional results or detailed results that could not be presented in the main report are presented in the annex. Furthermore, different examples are provided throughout the text, illustrating how the main methods and approaches have been applied in the study.

The structure of this scientific report largely follows the main steps and tasks performed during the project.

Chapter 2 presents the conceptual framework. It introduces the definition and the main functional characteristics of CPS in order to perform data collection and analysis in the subsequent steps. The conceptual framework builds upon document studies and literature review performed for the tendering phase and presented in the inception report.

Chapter 3 presents the main methods applied for establishing and presenting a European inventory of CPS examples. This includes the establishment of a database based on document studies and an online survey as well as the mapping of these examples.

Chapter 4 present the main steps and methods applied for case study research. This ESPON study is initiated and performed on behalf of a group of ten cross-border regions supported by the Association of European Border Regions (AEBR). Case studies have been conducted in these ten border regions performing in-depth research on the characteristics of CPS and to better understand the processes and steps required to establish, develop and implement CPS, and the obstacles associated with this. The case study work included in-depth research and data collection among other via interview and workshops. Each case study is described in a case study report, which are annexed to this report.

Chapter 5 presents the main methods applied for the selecting and presenting good practice examples. In order to share more examples of the variety of CPS delivered across Europe, factsheets of good practice examples have been developed. The factsheets are annexed to this report.

Finally, chapter 6 presents proposals for future research. This ESPON project illustrated the presence of many CPS across Europe as well as their main characteristics. For the first time it collected a European-wide, cross-thematic inventory of CPS. Future research could for example complement the current inventory or could perform trends analysis in CPS development.

2 Conceptual framework

The conceptual framework presented in this chapter provides the backbone of the study. Since no single analytical concept for cross-border public service provision existed so far, a conceptual framework has been developed for the purposes of performing this ESPON study. The following provides a brief introduction to key criteria for defining CPS and functional characteristics of CPS. Together this conceptual framework allows identifying examples of CPS across Europe as well as analysing their main features.

2.1 Defining cross-border public services in a European context

Public service provision is acknowledged as an important element for the European social model and to achieve territorial cohesion. The Lisbon Treaty states that good accessibility to public services is key for territorial cohesion. Public services are generally organised by national, regional or local authorities within their administrative boundaries. These services can be found in many different policy fields including transport, health care, education, environmental protection, civil protection, banking, justice and public security, including defence. In accordance with this variety, nine policy areas for CPS have been identified and complemented by a subdivision of altogether 34 field of intervention (Table 2.1).

Public services may also be provided across national borders. With the opening of the European internal market, cross-border public services increasingly gained attention. Increasing interest in CPS may also be influenced by an observable “come-back” of municipal public service provision in Europe that gives rise to a need for better coordinating service provision across national borders (Jaansoo and Groenendijk, 2014).

Unfortunately, no analytical concept exists that allows to clearly define or delineate the exact nature and scope of cross-border public service provision activities (INTERACT, 2015). It may be argued that all cross-border cooperation activities run by regional and (...) local authorities are still public services, whatever their legal form might be (Council of Europe, 2012). However, this broad definition is not suitable in the scope of this study, because it implies that the analysis would have to consider every publicly-driven cross-border project, be it short-term (one-off) or durable.

Also a transferred use of the EU-level definitions elaborated for different categories of “Services of General Interest” is inadequate. This is due to the vagueness of the EU-level concept and its terminology (ESPON, 2013), but also because the narrow definitions would neglect CPS in the fields of police, justice or statutory social security schemes.

Hence, formulating an operational definition to analysis CPS in a European context is not an easy and straightforward task. Therefore specific criteria have been defined for this study. These criteria allow for a systematic approach to determine whether a service could be considered as CPS. Flexible criteria rather than a formal definition for CPS have been developed in order remain flexible and adhere to large variety of possible CPS in Europe. These working criteria, in turn, require a case-by-case assessment.

Eleven criteria support distinguishing CPS from non-CPS. Based on discussions on typical characteristics of CPS eleven criteria have been developed to allow assessing whether a service should be considered a CPS or not. In general all criteria have to comply. Only for services at EU external borders it is suggested to apply the criteria less strictly, to illustrate how first steps towards CPS in the stricter sense can develop along these borders.

The following criteria have been defined:

1. The CPS covers a **specified cross-border area** and must have already **materialised** in the cross-border area.
2. A CPS addresses a **joint problem or development opportunity** in the cross-border area.
3. A CPS shall have a **target group on both sides of the border**, even if it is targeted in quite different ways.
4. Within the target group there is no access restriction for using the CPS (**non-discriminatory access**).
5. A CPS includes **actors from both sides** of the border who are involved in initiation, establishment/financing and/or provision. The degree of involvement can vary however.
6. A CPS is **publicly organised**, either directly provided by a public body or a private/ non-profit organisation via a concession.
7. A CPS can be provided in any of the **policy fields** listed in Table 2.1. The sub-fields are not exhausting.
8. A CPS is **publicly financed**.
9. A CPS is a **service** which means that the mere existence of a (hard) infrastructure does not represent a service (e.g. a cross-border bridge, road or pipeline).
10. A CPS offers a **long-term service provision**, i.e. there is no limited timeframe as in case of “one-off projects”.
11. A CPS delivers which means that the **service is existing** and running at the time of analysis.

Table 2.1: Overview policy areas and fields of interventions in which CPS may exist

Policy Area code	Policy Area	Field of intervention code	Field of intervention	Example
1	Transport	1.1	Cross-border public transport services	Joint public transport services by bus, rail (train, light rail / metro or tram) and ferries Steady cooperation between public transport organising authorities (regional/local) and transport operators for harmonising /integrating
		1.2	Cross-border public services for transport infrastructure maintenance	Some of these are already reported or will be upcoming: Joint public services for snow removal on roads / rail tracks or maintenance of cross-border tunnels etc. (esp. in Nordic Countries and mountainous areas)
		1.3	Cross-border public services at border crossing points	Steady cooperation among public authorities on border crossing points at external EU borders
2	Spatial planning, economic development, tourism and culture	2.1	Cross-border public services for spatial planning or sector policy planning	Joint facilities and support services / tools that enhance cross-border spatial planning or sector policy planning activities of regional/local authorities
		2.2	Cross-border public services supporting economic development	Cross-border business zones and joint public services enhancing cross-border business activities
		2.3	Cross-border public services for culture and cultural heritage	Joint facilities or steady cooperation in the field of culture and cultural heritage (e.g. public museums and libraries or publicly managed cultural heritage sites)
		2.4	Cross-border public services for tourism development	Joint tourism offices and permanent joint public services for tourism promotion
3	Healthcare, long-term care and social inclusion	3.1	Cross-border public services for primary care, secondary care and tertiary care	Joint day-to-day healthcare (i.e. primary care) and hospital care (i.e. secondary and tertiary care), joint information services facilitating patient mobility
		3.2	Cross-border public support services for hospitals	Joint provision of medical services for hospitals (telemedicine, remote diagnosis, laboratory services)
		3.3	Cross-border public services for non-hospital care or ambulatory care	Joint non-hospital care services and joint services supporting a temporary presence of "foreign" health care professionals in the neighbouring country to provide patient care
		3.4	Cross-border public services for medical emergency care and rescue	Joint emergency care / rescue services and steady cooperation between relevant public and private actors
		3.5	Cross-border public services for long-term care	Joint long-term care services (medical and non-medical) for senior citizens and people with a chronic illness / disability / other functional limitations receiving care in institutions or at home
		3.6	Cross-border public services for social assistance and social integration	Cross-border social assistance and integration services for specific target groups threatened by poverty, discrimination and social exclusion (e.g. underprivileged young people, long-term unemployed, ethnic minorities,

Policy Area code	Policy Area	Field of intervention code	Field of intervention	Example
				migrants, refugees/asylum seekers)
4	Education and training	4.1	Cross-border public services for early childhood education and primary education	Joint childcare and early childhood education facilities or related services Schools with joint education, steady cooperation between schools and public authorities for facilitating the exchange/mobility of pupils and teachers
		4.2	Cross-border public services for secondary education	Schools with joint education, steady cooperation between schools and public authorities for facilitating the exchange/mobility of pupils and teachers
		4.3	Cross-border public services for tertiary education	Universities with joint curricula, steady cooperation between higher education institutions and public authorities for facilitating the mobility of students, researchers and professors
		4.4	Cross-border public services for vocational education and training	Vocational education / training facilities with joint schemes, steady cooperation between vocational training facilities and public authorities for facilitating the mobility of trainees
		4.5	Cross-border public services for a recognition of diploma or professional qualification certificates	Steady cooperation between public authorities for facilitating the recognition of diploma or professional qualification certificates
5	Labour market and employment	5.1	Cross-border public information and advice services for facilitating the mobility of workers	Joint information and advice services facilitating the mobility of workers on the cross-border labour market and their access to neighbouring social insurance systems
		5.2	Cross-border public services for job placement	Joint job placement services for unemployed persons
		5.3	Cross-border public services for further qualification and life-long learning	Joint services facilitating the access of cross-border workers to further qualification and life-long learning
6	Communication, broadcasting and information society	6.1	Cross-border public mail delivery, telephone or mobile phone services	Joint postal services, telephone / mobile phone network services incl. '112' European emergency number
		6.2	Cross-border public broadcasting services	Joint broadcasting services (radio, television)
		6.3	Cross-border public digital services	Joint digital service infrastructures and digital public services (incl. e-Government)
7	Environmental protection, natural resources management and climate change action	7.1	Cross-border public services for protecting / restoring and managing terrestrial freshwater water bodies (blue infrastructures), estuaries and coastal waters	Joint management of border rivers, river basins, lakes or estuaries (incl. flood damage prevention)
		7.2	Cross-border public services for restoring, protecting and managing valuable terrestrial ecosystems or landscapes and for developing green infrastructures, incl. services for risk prevention and climate change resilience	Joint management of and national parks, natural reserves, nature parks, landscape parks or conservation areas and geo-parks (including prevention of forest fires) Services enhancing the resilience of natural resources to climate change
		7.3	Cross-border public services for improving	Support services for a "greening" of existing public services and cross-border

Policy Area code	Policy Area	Field of intervention code	Field of intervention	Example
			resource efficiency and for promoting a low carbon economy or a greening of the society	public information / advice services for encouraging climate-relevant actions of individuals (mitigation)
		7.4	Cross-border public services for solid waste, sewage water collection / treatment & drinking water	Joint treatment of solid waste and of sewage water, joint drinking water provision
		7.5	Cross-border public services for a production / distribution of energy derived from renewable sources	Joint production and distribution of energy from renewable energy sources
8	Civil protection and disaster management	8.1	Cross-border public services for fire-fighting and for assistance in accidents	Mutual assistance in case of accidents and for combating fires or forest fires (incl. prevention of forest fires)
		8.2	Cross-border public services for flooding management	Joint flooding management
		8.3	Cross-border public services for managing large-scale incidents and major disasters	Joint services increasing the preparedness for / mitigating the effects of geo-hazards, extreme meteorological hazards or man-made technological hazards
9	Citizenship, justice and public security	9.1	Cross-border public advice and support services for citizens	Joint services providing advice to all citizens on cross-border matters and/or facilitating the administrative handling of "cross-border life events" of citizens
		9.2	Cross-border public services in the fields of justice, police and customs	Steady cooperation between actors of the judicial system and/or between customs administrations Joint crime prevention and criminal investigation (i.e. police cooperation)

Source: Service provider, 2018

2.2 Functional characteristics of CPS

A sound analytical framework based on the main functional characteristics of CPS has been developed as a meta-level working tool for analysing CPS. Describing main functional characteristic of CPS helps to operationalise the analysis of CPS at European level and in the stakeholder regions.

Four key functional characteristics of CPS can be distinguished, namely the

- (1) normative base,
- (2) production base,
- (3) motivations, objectives and tasks as well as the
- (4) organisation and delivery of CPS.

The following sections discuss for each key characteristic the main distinctive features when comparing domestic public service provision with CPS. This comparison has two main functions. Firstly, CPS share many features with domestic service provision. Secondly, the stakeholder-level analysis of CSP requires that researchers consider particularities of public service provision in each country.

2.2.1 Normative base for CPS provision

The normative base for CPS refers to legal sources allowing for an establishment of CPS and to specific legal instruments that can be used for establishing potentially necessary formal arrangements governing the functioning of the service, including funding, objectives, tasks and main governance structures.

Within individual countries, the normative base for domestic public services is usually laid down in constitutions and/or in secondary legislation on relevant policy areas. Domestic legal frameworks aim at ensuring a minimum level of service availability and an equal access of the national population to affordable and quality public services. These legal frameworks often make it possible for individuals or organisations to formally claim the provision of certain public services within a country via courts, enhancing a balanced development of the national territory.

Contrary to this, there is no general normative base for establishing CPS and related activities are therefore **often undertaken without a legally binding obligation for initiating and providing CPS**. CPS development is therefore most often undertaken as a voluntary joint action involving regional or local authorities, but sometimes also national authorities.

Nevertheless, there are some European-wide and country-specific or policy-specific international regulatory frameworks (i.e. interstate agreements) that establish a normative base for CPS. These frameworks may entail the conclusion of regional-level cooperation agreements or local conventions and protocols, or a combination of these.

The **most important EU-wide piece of legislation supporting CPS is Regulation (EC) 1082/2006, introducing the European Grouping of Territorial Cooperation (EGTC) as a general legal instrument for territorial cooperation**, However, a stock-taking of experiences made with this Regulation observes the actual use (...) seems to be largely limited to cross-border regional development, spatial planning and management issues rather than the concrete provision of public services (Jaansoo / Groenendijk 2014). The revised Regulation (EU) No 1302/2013 on the “European Grouping of Territorial Cooperation” (EGTC) explicitly foresees a cooperative provision of public services (i.e. intents no. 8 and 24).

Also thematic secondary EU-legislation can directly or indirectly motivate the development of CPS. Relevant legislation exists in the following policy fields:

- **labour market**, through the specific status of cross-border workers and right to access neighbouring social security systems, with Regulation 883/2004 setting rules for social security aspects such as pensions and unemployment;
- **cross-border health care**, through the Regulation 883/2004 and Directive 2011/24/EU, allowing patients no matter which country they are to follow planned treatments in another EU country and to use health care services abroad in case they announce it in advance;
- **wastewater treatment and water management** (incl. flood risk and river basin management), through the Urban Waste Water Treatment Directive (UWWTD), Drinking Water Directive (DWD) and in particular the Water Framework Directive (WFD);
- **local public transport**, mainly through Regulation (EC) No 1370/2007 and Regulation (EU) No 2016/2338 on public passenger transport by rail and road, as well as in VAT-related matters through Directive 2008/8/EC on the place of supply of services.

In the cases of a EU Directive national differences may occur when transposing the European legislation into national frameworks. This may challenge the level of support for the normative base needed for CPS development by the abovementioned frameworks.

Box 2.1 Examples of European level regulatory frameworks supporting CPS

European legislative frameworks support CPS in different ways. This support may be implicit in many cases, i.e. not all stakeholders are aware of the European roots of legislation. An example is the cross-border waste water treatment in the German-Austrian border area around Salzburg. EU legislation ensures fairly similar quality standards, easing CPS development.

In other cases European regulatory frameworks directly create the opportunity to provide services across the border. CPS that make use of the EGTC framework are the most explicit examples where European legislative frameworks support CPS development. This framework supports CPS in a variety of intervention fields:

- “EGTC Cerdanya Cross-Border Hospital” was created for a joint management of the public healthcare service of the Cerdanya hospital, realised by the French and Spanish (Catalan) healthcare authorities.

- “EGTC Parc européen / Parco europeo Alpi Marittime – Mercantour” facilitates and promotes cooperation among its members in the protection, promotion, awareness and management of the natural, cultural and landscape heritage on the French-Italian border.
- “EGTC Eucor – The European Campus” consists of German, French and Swiss universities and was founded in 2015 to promote cross-border cooperation in higher education within the tri-national Upper Rhine region.

A number of **multilateral conventions or treaties and bilateral agreements** establish overarching legal frameworks for general decentralised cross-border cooperation. These frameworks can be found in large parts of western Europe stretching from the Nordic countries to the Iberian Peninsula. They were already established at an early stage between the Nordic Countries (i.e. 1962: Treaty of Helsingfors; 1977: Nordic Agreement on Cross-border Co-operation) and later also between a number of other western European countries through bilateral or multilateral interstate agreements that apply the Council of Europe’s Madrid Outline Convention of 1980. Examples for the latter are the

- “BENELUX Convention” between the Netherlands, Belgium and Luxembourg (1991)
- “Isselburg-Anholt Agreement” between Germany and Netherlands (1993);
- “Rome Agreement” between France and Italy (1994);
- “Vienna Agreement” between Italy and Austria (1995);
- “Treaty of Bayonne” between France and Spain (1997);
- “Mainz-Agreement” between the German Länder North Rhine-Westphalia and Rhineland-Palatinate and the Walloon region and the German-speaking Community in Belgium (1998);
- “Karlsruhe Agreement” between France, Germany, Luxembourg and Switzerland (1997);
- “Valencia Agreement” between ES and PT (2004);
- “Brussels Agreement” between FR and BE (2005).

Box 2.2 Examples of bilateral agreements supporting CPS

In particular bilateral agreements that facilitate the establishment of cross-border bodies supported the development of various CPS. Examples of initiatives that made use of these legislative frameworks can be found along any border where such bilateral or interstate agreements exist. Some examples are:

- The cross-border Nature Park Maas-Schwalm-Nette between Germany and the Netherlands was established in 2002 as Dutch public law-based local purpose association between municipalities on ground of the Anholt Agreement.
- “GLCT/GÖZ Wissembourg-Bad-Bergzabern” was established in 2001 for the supply of drinking water to the municipality of Wissembourg (France) and the grouping of municipalities Bad-Bergzabern (Germany). The GLCT is a German law based cross-border body on ground of the Karlsruhe Agreement.

- “GLCT Galerie de Chouilly” was established in 2005 for the construction and operation of an underground tunnel to transport waste water from the Community of communes of the Pays de Gex (France) to the purification plant of Geneva (Switzerland). The GLCT is a French law based cross-border body on ground of the Karlsruhe Agreement.

Theme-specific interstate agreements (e.g. framework agreements, conventions, protocols, exchange of notes etc.) usually aim at determining the general principles and scope of cooperation as well as the precise legal / administrative context and the content of this cooperation. These agreements provide for intergovernmental cooperation in a specific policy area and very often also for regional or local cross-border cooperation. Intergovernmental cooperation often takes place in specifically created cross-border commissions, committees or working groups. Related activities can aim at eliminating / alleviating problems that may emerge during the service provision practice (e.g. due to different administrative proceedings, quality standards / safety provisions / insurance rules or the ongoing change of national legislations etc.), at providing guidance and advice to lower-level public authorities that are active in CPS provision or at ensuring the quality of CPS provision in accordance with the respectively applicable national rules / standards in force. In case interstate agreements are providing for regional / local cross-border cooperation, they often stipulate specific conditions and organisational principles on ground of which regions or local authorities may develop and jointly provide CPS in a given policy area (i.e. What can be done and by whom? Which limitations do exist? etc.). The conclusion of interstate agreements is an already long-standing and still on-going practice that can be observed in fields such as civil protection and disaster management, water management, health care or long-term care, emergency or rescue services, job-placement and vocational training or police cooperation (see: Box 2.3).

Furthermore, **regional or local cross-border cooperation agreements are frequently concluded** between the competent public service organising / ordering authorities and the directly concerned service providers (e.g. hospitals, social insurances or employment agencies, transport operators, educational institutions etc.). Such agreements can be concluded separately from the above-mentioned general or theme-specific interstate agreements, or on ground of specific requirements and provisions that are included in these agreements. The purpose of these local or regional agreements is usually to define in more detail the operational aspects linked to a given CPS (e.g. procedures for managing and delivering a CPS, levels of fees and distribution of generate revenues, liability and public accountability etc.). These specific normative frameworks are not needed in a domestic context, because homogenous regulatory / procedural frameworks and standards are already in place and applied in the concerned territory(ies) to all types of public services. This also illustrates that the **launching, conceptualisation and delivery of CPS always takes place in a very heterogeneous legal, administrative and political cross-border context** that is by far more complex than the respective country-internal context. Moreover the heterogeneity of the normative base for CPS depict some obstacles for the development of CPS, such as

different national interpretation of transposed EU legislation or incompatible domestic legislations, e.g. resulting from different norm levels in domestic legislation.

Box 2.3 Examples of conventions or protocols

Conclusion of thematic interstate agreements for specific policy areas	Ongoing strategic cooperation among national / regional public authorities
<ul style="list-style-type: none"> • mutual assistance in case of natural disasters, severe accidents and civil protection: BE-NL (1970), DE-FR (1977), DE-BE (1980), BE-FR (1981), DE-CH (1984), BE-NL (1984), DE-NL (1988), PL-DE (1997), AT-SK (1999); • emergency and rescue services: Rheinland-Pfalz/DE-BE (2009), AT-CZ (2016), Bavaria/DE-CZ (2016); • cross-border management of water and/or of border rivers: Rheinland-Pfalz/DE-LU (1974), DE-NL (1960), DE-AT (1987), DE-PL (1992), DE-CZ (1995); • cooperation between police, justice, customs and / or tax authorities: BE-DE (2000), IT-CH (2000 and 2003), Benelux countries (1996, 2004); • cross-border health care (BE-FR, 2011) and long-term care (Wallonia/BE-FR, 2013); • cross-border vocational training: DE-FR (2013), BE-DE-FR-LU (2014); • cross-border job placement: DE-FR (2013). 	<ul style="list-style-type: none"> • the “International Water Protection Commission for Lake Constance” created in 1959; • the French-Belgian “Mixed Commission” on health care, • the permanent “Task Force Commuters” in the Greater Region, in the Upper Rhine Area (Upper Rhine Conference working group on spatial planning); • cross-border Water Commissions set up at various EU-borders; • the “Freedom of Movement Council” in the Nordic Countries dealing with a wide-range of cross-border mobility-related issues.

2.2.2 Production base for CPS provision

The second key functional characteristic of CPS considers the necessary infrastructures that actually enable or support service delivery, in other words the production base for CPS. Public service provision to the population is taking place on the grounds of different kinds of infrastructure. For example, health care services for a large population cannot be provided without hospitals and their specialised equipment; a discharge of cleaned household / surface runoff waters to a river require a sewage collection system and an adequate treatment plant. The production base of CPS is to a large degree comparable to the production base of domestic public services and includes hard, soft and green and blue infrastructures. In addition, CPS may also require so-called system interface infrastructures.

Hard and soft infrastructures cover the essential physical networks as well as the basic institutional and human capital potential of a country, on ground of which a wide range of traditional domestic public services is provided. Hard infrastructure covers physical facilities and related delivery systems for providing essential goods and services. Soft infrastructure include assets needed to provide public services for maintaining economic, health, cultural and social standards in a given territory. A modern perception of public service provision should consider **green and blue infrastructures** as production base, because they deliver valuable ecosystem goods and services to the population that are a sub-category of public

goods (European Commission, 2009). Green infrastructures are deliberately conceived through sustainable spatial planning policies and regional or local development policies are investing in developing green infrastructure (EEA, 2011, 2014, 2015). Public activities directly aimed at protecting, restoring and enhancing the functions of green infrastructures are therefore important public services that complement traditional public environmental services such as a collection and treatment of waste water or solid waste.

CPS experience a spatial differentiation between physical infrastructures and service provision. Likewise domestic services, CPS rely on hard, soft green and blue infrastructures, but with the difference that infrastructure and services are territorially split. For domestic services, any fixed physical infrastructure used is always located at a precise spot. In the case of a CPS the physical infrastructure remains on the same location, in the territory of a specific municipality / region on one or the other side of a state border. This applies to CPS that are provided on grounds of a newly established physical infrastructure or on grounds of a shared use / pooling of various physical infrastructures. The situation is very similar in case of green and blue infrastructures, because the related natural and semi-natural or man-made assets of different scales are conceived and managed according to different national and regional / local rules applicable on either side of a border.

So, in the case of a CPS, stakeholders would need to agree and organise the use of the infrastructure on both sides of the border. They relate for instance to infrastructure ownership (e.g. one-sided or joint ownership), the ongoing maintenance of an infrastructure (e.g. responsibility for certain parts of the infrastructure and bearing of the costs), and the further development of an infrastructure (e.g. mobilisation of funds for infrastructure-enlargement / for a necessary modernisation and location of enlargements). In case of physical (hard) infrastructures (like pipelines, power networks, tramway tracks etc.), the cross-border sections often still need to be physically build before a CPS can start its operation¹.

Box 2.4 Examples of infrastructures supporting CPS

Infrastructures as such are no CPS, following the eleven working criteria for CPS. Nevertheless they play an important role for the provision of services in cross-border areas. In a cross-border context a few particularities of infrastructures become more explicit.

For example, for the shared provision of district heating in the neighbouring towns Flensburg (Germany) and Padborg (Denmark) agreements had to be made on the ownership and the maintenance of the cross-border pipe network. Padborg Fjernvarme owns and maintains the pipe network on Danish territory. Stadtwerke Flensburg owns and maintains the pipes on German territory and provides the cross-border service.

Other examples illustrate the added value of continued training and capacity building activities. These soft infrastructures are for example applied to support the service provision

¹ Often, the construction works are part of the implementation process of a CPS.

of labour market information and advice services along the Dutch, Belgian and German borders through border information points.

CPS may be provided on the grounds of newly established system interface infrastructures. Besides hard, soft and green-blue infrastructures CPS may be provided on the basis of a cross-border specific infrastructure. System interface infrastructures aim at alleviating an existing “cross-border information asymmetry”, which creates a multitude of day-to-day problems that individuals and businesses or even public authorities are facing in their border-crossing interactions. System interface infrastructures are publicly financed and continuously operated by specific cross-border networks or by already existing permanent cross-border cooperation structures. They can be tangible (e.g. a staffed information point where support is provided face-to-face) or virtual (e.g. an internet portal with practical information on different subjects; an IT-based policy support tool) or a combination of both. The related advisory, information and support services are either directed to the general public or to specific target groups in society (esp. for increasing the mobility of cross-border workers, students / trainees, patients, enterprises). They can also address public regional or local authorities in the cross-border area (e.g. specialised support tools / information facilitating cross-border spatial planning or sector policy planning activities).

Box 2.5 Example of system interface infrastructures supporting CPS

The mobile border crossing application for traffic fluency of the Imatra – Svetogorsk border crossing point at the Finnish-Russian border in South Karelia is an example of a modern, digital and multifunctional public service that is provided by means of a system interface infrastructure. The CPS is an IT-based mobile application with practical information on accurate travel and waiting time at the border crossing point. The mobile application overcomes information asymmetries across the border and is therefore an example of system interface infrastructures.

2.2.3 Motivations and tasks of CPS

The third key functional characteristic of CPS considers the motivations for establishing a CPS (i.e. shared problems or development potentials) as well as the objectives and nature of public tasks by which joint service provision is addressing these needs.

The rationale for allocating tax-payers money to the provision of services is more easily justified for domestic public services than for public services that go beyond administrative borders. Domestic public services may be provided following a political objective or to address a market failure. In the case of CPS provision, stakeholders on both sides of the border would need to find a common understanding on the needs or potential of CPS provision.

Different border effects may create a need or added value for a CPS compared to domestic public service provision. The nature and scope of needs for CPS is strongly conditioned by the multidimensional character of the border. Every border can be

characterised by different closure and opening effects (Haselsberger, 2014). The ESPON project “GEOSPECS” identified four dimensions that simultaneously characterise any border. These effects affect all sorts of border-crossing economic, socio-cultural, inter-administrative or inter-personal exchange relations within a given cross-border area (ESPON, 2012). In short, the four main dimensions can be described as follows.

- **Effects associated with political borders.** CPS may be introduced to address administrative or technical obstacles at the border. CPS can also emerge as result of existing cross-border cooperation and (bilateral) agreements.
- **Effects associated with natural assets or physical obstacles.** CPS may be introduced to offer a common service covering a joint natural space or solving a physical fragmentation.
- **Effects associated with economic discontinuities.** CPS may be introduced to ensure economies of scale and making better use of scarce resources for public service delivery. CPS may also support further integration of functional cross-border areas for example areas with frequent cross-border commuting.
- **Effects associated with socio-cultural dividing lines.** CPS may be introduced to support further territorial integration and addressing misunderstandings or creating mutual trust on both sides of the border.

Each of these dimensions includes border opening and closing effects that describe the need for CPS provision. An overview of the border dimension, key features and associated effects is provided in Table 2.2.

Cross-border needs emerge from a broad variety of closure effects, which are creating problems in the present and will lead to new challenges in the foreseeable future. A recent EU-wide survey and online public consultation confirm that legal / administrative obstacles, language barriers, physical barriers, economic disparities, lacking cooperation interest and also socio-cultural differences are the most relevant obstacles that restrict or hamper individual citizens, businesses and other organisations or public authorities in their border-crossing interactions (European Commission, DG REGIO, 2015, 2016). For many of these border obstacles CPS provision can help to alleviate or even eliminate the associated adverse direct and indirect effects. This holds true especially for legal and administrative obstacles, as demonstrate the findings of a recent DG REGIO study conducted on this matter (European Commission, DG REGIO, 2017): out of the 239 identified obstacle cases, 77% exist in policy fields that are highly relevant for CPS provision (185 cases). Most of these obstacles are rooted in the difference between national / regional laws of EU Member States or other non-EU countries (Andorra, Liechtenstein, Norway and Switzerland) and in a lack of administrative coordination or cooperation across borders. This is also because the EU has in many of the concerned policy fields only a supporting competence or no competence at all.

Table 2.2: *Multidimensional reality of border and related border effects*

Dimension (*)	Features	Associated border effects leading to different needs in cross-border areas
Political dimension of a land border	The politically defined land borders separate – as simple lines – one sovereign state from another. They can have different statuses in Europe, especially in case of countries being members of the European Union (e.g. internal or external EU-border, EEA-border or EU-CH borders, border between Schengen & non-Schengen countries, border between Eurozone & non-Eurozone countries).	Closure effects or opening effects for all sorts of border-crossing exchange relations can emerge from the different status of a political border (i.e. different degrees of “openness” for economic & inter-personal exchange relations) and more generally from the difference of legal systems and governance structures (administrative units & powers, different policies) meeting at a border.
Physical / geographical dimension of a border	Particular physical-geographical or natural features (e.g. mountain ranges, large rivers or lakes, seas or large maritime separations) were in Europe often used for demarcating the territories of neighbouring states and thus also for formalising political borders (see above). Natural obstacles exist along most EU-borders, as the share of borders without an obstacle (i.e. “green borders”) is relatively low.	Closure effects or opening effects can emerge from the existence / non-existence of a natural obstacle and the varying significance of the “barrier effect” that an existing obstacle has in practice (i.e. sufficient / insufficient availability and density of border-crossing possibilities by rail, road, ferry or ship).
Economic dimension of a border	Economic discontinuities along borders are constituted by significant differences between neighbouring border areas with respect to their respective overall economic performance (e.g. GDP/per capita, employment or unemployment levels etc.) or in relation to more specific aspects of economic relevance (e.g. levels of taxation, wages, labour productivity or R&D / innovation capacity).	Closure effects or opening effects can emerge from the existence / non-existence of economic discontinuities between areas located along a common border, as significant differences are acting at the same time as potential “push factors” and “pull factors” (e.g. for labour flows and economic exchange relations or the location of enterprises).
Socio-cultural dimension of a border	Socio-cultural dividing lines are constituted by variations in the general ethno-cultural and especially linguistic settings on either side of a border, but also by different interpretations of the common historical legacy. The existence of dividing lines greatly depends on how neighbouring countries (and regions) are dealing with aspects related to ethnicity, culture and especially language in the context of their own domestic policies.	Closure effects or opening effects can emerge from the existence / non-existence of socio-cultural dividing lines, as they strongly condition the possibilities for inter-personal or official communication (i.e. language barrier versus linguistic overlapping) and the presence of positive or negative instinctive / mental attitudes (e.g. prejudices, lack of mutual knowledge or ignorance versus mutual trust, sense of “belonging together” and common identity).
(*) The dimensions do not consider issues relating to “maritime boundaries”, which are a sub-feature of politically defined borders.		

Source: Based on the ESPON GEOSPECS-approach (ESPON, 2012), pp. 109-134, 540-541

Other cross-border needs emerge from “opening effects” that ease or further stimulate border-crossing interaction in different domains and are therefore generating present-time potentials and future opportunities for CPS provision. By adopting a widened “cross-border

territorial 360° perspective” for a delivery of basic local / regional core tasks (Beck, 2015). CPS provision can potentially address or tackle a wide range of issues such as

- improving sustainable mobility and lowering of travel times through the establishment of new cross-border public transport services or a better cross-border coordination of existing domestic services;
- improving the quality of sewage water treatment or the security of drinking water provision in border areas to reach service standards existing in their respective domestic hinterlands;
- combating environmental degradation due to border-crossing pollution sources or because of by intense;
- improvement of cross-border flood prevention and flooding management;
- joint management of specific externalities that emerge from an intensification of cross-border flows (e.g. increased congestion due to more intense car-based cross-border commuting; stronger demand for building land due to increasing residential movements across a border).

To make the situation even more complex, the perception what is a “closure” or an “opening” effects very much depends on personal awareness, knowledge or just interpretation. The same issue may at the same time be considered as an obstacle (closure effect) or as an potential (opening effect) for a CPS. Therefore, the process of developing a common understanding of a problem is essential, because as part of this process agreement about the predominant nature of an issue and its perception need to be found.

Once the relevant problems or development potentials motivating the establishment of a CPS were jointly identified and agreed upon between the stakeholders, the latter have then to develop **a concrete intervention approach for the future CPS**. This also involves that joint decisions are taken on **the precise tasks** by which the CPS intends to tackle the identified cross-border needs.

There are three basic types of intervention approaches, which are in practice often used in combination. **(a) Quality-improving CPS** – These are in general all CPS that are establish completely anew and developed for the general public or a specific target group. These new CPS fill a gap in the domestic provision of public services on both sides of a border.

(b) Effectiveness-improving CPS – CPS may be provided in two different ways to enhance effective delivery. A first option is the extension of an existing domestic public service to the other side of a border, which then creates benefits for the entire cross-border area. Another option is the coordination and harmonisation / integration of domestic public services that already exist on both sides of a common border.

(c) Efficiency-improving CPS – This is generally the case where CPS provision is used as an alternative to current domestic service provision for realising economies of scale and/or

economies of scope. Box 2.6 depicts different motivations for CPS considering economies of scale or scope.

Box 2.6: CPS provision for reaching economies of scale or scope

Economies of scale can be realised if a CPS covers a wider catchment area with a higher population on both sides of a border (in comparison to the reduced domestic service area), which then allows producing the joint service at a lower cost and for the benefit of both sides of a border. A cross-border increase of the critical population size needed for cost-efficient service provision may also help avoiding the closure (or privatisation) of a currently unprofitable local / regional public service, which is often a real threat in many rural or sparsely populated cross-border areas.

Economies of scope can be realised through a cross-border functional division of labour, which establishes for the same service field only a single joint provider instead of two or more separate providers on both sides a border. A CPS can thus allow for a sharing of ongoing production cost (i.e. cross-border distribution of cost for infrastructure maintenance and modernisation or for public procurement etc.) and for a more efficient usage of the operating staff (e.g. less staff needed or more flexible use of staff). This division of labour may also enable the closing down of an outdated facility on one side of the border and – very important in border areas – avoid the establishment of costly "double infrastructures" (e.g. construction of two close-by sewage water treatment facilities on either side of the border instead of one joint facility serving both sides).

Depending on which of the above approaches is applied (individually or in combination), CPS provision can involve different tasks.

- **Supply task** – a provision of essential public services to all persons at appropriate conditions, so that citizens have adequate access to affordable services in all parts of a territory and can enjoy acceptable levels of quality of life and societal participation at their places of living and working;
- **Development task** – a delivery of specialised and high quality public services adapted to the special needs of a territory, so that the fundamental pre-conditions for economic development, competitiveness and innovation are secured and that available social energies, skills and resources can be best harnessed;
- **Preservation task** – a delivery of specialised public services that protect, maintain and enhance the environment and especially the functions of green infrastructures to deliver ecosystem services, so that an ecological framework for the social, economic and environmental health of a territory is ensured.

To conclude, justifying a CPS is more demanding than justifying the provision of domestic public services. Relevant public stakeholders on both sides of a border must first develop a common understanding in relation to cross-border needs and then have to achieve consensus on whether and how these needs should be approached and actually tackled. This

process is demanding and can be very time consuming. Many services can involve a prior collection of specific technical data on the cross-border situation because they do not yet exist. Further interpretation of such data and the establishment of a common view on particular problems or concrete potentials (or future challenges / opportunities) can be complicated by language-related and intercultural differences (e.g. different interpretation of facts; different political views or mind-sets). Once this initial preparation is finalised, there are still important joint decisions to be taken on how the CPS should be organised and delivered in operational terms for tackling the identified cross-border need.

2.2.4 Organisation and delivery of CPS

The fourth key functional characteristic of CPS concerns the organisational structures and modes of delivering the services. Each European country has its own national rules for organising and delivering public services that stipulate the division of responsibilities between public, private or voluntary stakeholders at different governance levels. Within each country, however, the availability, accessibility, affordability, quality and variety of a specific domestic public service in a specific context is reflected by the user demand and provided by different modes of organisation (ESPON, 2013; European Parliament, REGI Committee, 2016). A number of basic organisation- and delivery-related features characterising domestic public service provision are also typical for many CPS, wherefore they should be considered by the analysis whenever necessary.

Public authorities can be directly or indirectly involved in the service delivery. The level of public involvement of domestic services and CPS is comparable. Public services are the most common interface between people and the state. Due to some level of public obligation these types of services demand to be delivered with integrity, centred around citizens and responsive to their needs, in particular the needs of the most vulnerable person groups. This also gives rise to further provision-related aspects such as the visibility, measurability and attributability of domestic public service provision (Batley and Mcloughlin, 2015). To secure these types of public obligations, the delivery of domestic public services and CPS in any given sector can be performed directly by the competent public authority . A provision of domestic public services and CPS can also be delegated to other semi-public or private organisation of different nature, with service provision being controlled through indirect roles (e.g. supporting, coordinating and regulating services, for example by setting policy objectives, enforcing standards, and ensuring universal take-up) (Batley and Mcloughlin, 2015). In case of natural monopolies for example, a public utility is often set up to maintain infrastructure for a public service and, by using this infrastructure, to provide a service that is consumed by the public (e.g. electricity, biogas, drinking water, sewage, telephone, transportation, broadband internet services both fixed-line and mobile etc.). Public utilities can be publicly owned, which implies that they are either directly or indirectly owned by government authorities (e.g. state, region or local authority) or by the customers they serve (i.e. cooperative utilities). Utility cooperatives have developed in some fields such as renewable energies or mobile telephony public utilities can also be privately owned (e.g.

investor-owned utilities), which implies that utilities operate for profit and are therefore often subject to public control and specific sector regulations.

Box 2.7 Examples of different roles of public authorities in CPS provision

CPS may be directly provided by public authorities. This is most often the case for example in education, civil protection or health care. Nevertheless, there are many examples of indirect involvement of public authorities in CPS provision. Examples can be found, for instance, in the fields of drinking water provision, waste water treatment, economic development, tourism and public transport.

For instance, between the Netherlands and Belgium in the Euregio Scheldemond several cross-border bus connections are provided by a private operator. The private operator has won the concession to provide bus transport for the province of Zeeland, including the provision of a few cross-border bus lines to neighbouring Belgian towns and villages.

The establishment of adequate organisational structures and delivery processes for CPS is in general more complex than within a country. In a domestic context public actors conceive and operate services on grounds of a legal/institutional and policy-making context that they are familiar with. In a cross-border context, the need for some degree of formalisation depending on the intensity of cooperation and on the degree of complexity of the tasks that are allocated to the CPS is challenged by possible differences in regulatory and formal aspects in the involved countries. These challenges can sometimes only be solved by creating new formal grounds. Three main governance models for CPS implementation can be distinguished based on a classification by Beck (2015), namely a networking model, centralised model and an integration model (see Table 2.3).

The complexity of CPS organisation derives from the variety and number of different stakeholders. There is a risk of asymmetry between the stakeholders involved on both sides of the border due to different type of public authorities or organisations involved in domestic public service delivery. In some cases there might be a lack of counter-organisations or authorities at the other side of the border. Moreover within the group of stakeholders there might be lack of clarity on the competences and responsibilities of policy actors involved in the process.

These organisational challenges can be strengthened in case of socio-cultural dividing lines. Mental barriers, misunderstandings, mistrust lead to a lacking willingness for cooperation on CPS and can inhibit the development and implementation of CPS. Particularly in cases with different linguistic settings on either side of a border require specific measures to overcome an existing language barrier that make CPS provision more complex or costly (e.g. bi-lingual service design, specific promotional measures etc.).

Table 2.3: CPS implementation models with related organisational structures and corresponding delivery / management modes

Basic model (*)	Implementation features (*) / (**)	Organisational structures (**)	Delivery and management modes (**)
Networking model	Spatial-functional division of joint tasks <i>between different public administrations</i> (local, regional, national) or service providing organisation	(1) Newly created informal network structure between organisation from both sides of the border without a joint coordination unit. (2) Newly created and formalised network structure (inter-organisational) with / without a joint coordination unit	Mutual coordination or harmonisation of aspects linked to existing domestic public services on either side of a border in order to achieve a more effective / efficient border-crossing service offer (i.e. harmonised / coordinated delivery & one-sided management). New CPS, which is delivered and managed on a cooperative base by two or more structures / bodies existing on either side of a border (i.e. cooperative delivery & shared management).
Centralised model (or Shared Service Centre)	Spatial-functional concentration of the joint tasks <i>in one public administration</i> (local, regional, national) or one service providing organisation	(1) Existing local / regional authority, specific body or provider on one side of the border, <i>not</i> including actors from the other side of the border in the structure responsible for service provision. (2) Existing local / regional authority, specific body or provider on one side of the border including actors from the other side of the border in the structure responsible for service provision.	New CPS, which is delivered and managed by a public authority or service provider on one side of the border for the benefit of both sides (i.e. unilateral delivery & one-sided management). Border-crossing extension of an existing domestic public service, which is delivered and managed by a public authority or service provider on one side of the border for the benefit of both sides (unilateral delivery & one-sided management). Border-crossing extension of an existing domestic public service, which is delivered by a public authority or service provider on one side of the border for the benefit of both sides and which also involves actors from the other side in the daily management of the service (i.e. unilateral delivery & joint management).
Integration model	Transfer of joint tasks to a " <i>supra-municipal</i> " / " <i>supra-regional</i> " structure	(1) Existing cross-border cooperation structure with own legal personality, proper or seconded staff and an own budget. (2) Newly established cross-border body / structure with own public-law based legal personality, own material tasks, directly employed personnel and own budget.	New CPS, for which an already existing cross-border structure (e.g. Euregio or other types) with own legal personality is entrusted with the joint delivery and management (i.e. delegated joint delivery & delegated joint management). New CPS, which is jointly delivered and managed by a specifically established cross-border structure / body with own legal personality (i.e. integrated joint delivery & integrated joint management).

(*) According to J. Beck in: Bundesministerium des Innern / Land Baden-Württemberg / EURO-Institut Kehl-Strasbourg (2015)
(**) Own elaboration on ground observable CPS practices. N.B. These options cannot reflect the full scope of CPS practices at all EU borders and there may also be "hybrid" sub-types with slightly different delivery and management features.

Source: Service provider based on mentioned sources, 2018

Box 2.8 Examples of different governance models

The following three examples illustrate the three main governance models for CPS. The final governance model adopted depends inter alia on the local situation and legal possibilities.

The transboundary biosphere reserve Gerês-Xurés in the Portuguese-Spanish border region Galicia-Norte is an example of a CPS with a network governance model. Different national and regional authorities responsible for nature protection and conservation from Spain and Portugal cooperate for the benefit of this cross-border nature park. The different organisations cooperate using their individual institutional structures. Coordination is realised through different boards and councils that have been established.

The tramline between Strasbourg (France) and Kehl (Germany) is an example of a central governance model. The service is provided by Strasbourg's public transport operator as an extension of their existing network.

The provision of ten cross-border bus lines with a single fare system in the greater Geneva region, between France and Switzerland is governed in an integrated way. Various authorities responsible for public transport services in the border area have been brought together in a single cross-border decision-making and operational body, the "GLCT Cross-border Public Transport". In 2006, this was established on grounds of the Karlsruhe agreement under French law.

A third factor that contributes to the complexity of CPS organisation are the financing options. **Financing of a CPS needs to be arranged in formal cooperation agreements.** A principal differentiation is between CPS that are free of charge and thus rely only on public funding and CPS that are revenue generating through fees or regular payments raised from the users. Likewise the different cooperation and governance models this can include direct contributions from all partners to the CPS, indirect contributions to the CPS via a central body, financing from external sources, for example EU-funding such as Interreg, or a combination of these three. For revenue generating CPS usually specific tariffs have to be developed and harmonisation across the border may be an issue, which – in cases with Euro and non-Euro countries are concerned – also includes issues of currency exchange rates (and their development over time).

Strong economic discontinuities can generate basic problems for service funding (e.g. due to scarce budgetary resources available to local/regional public authorities on one or both sides), but also induce specific cross-border flow patterns that strongly shape supply- or demand-side aspects of CPS (e.g. highly unilateral and time- or location-focussed commuter flows) and thereby make service conceptualisation more complicated or service provision less cost-efficient (e.g. time scheduling and frequency of cross-border public transport).

CPS are based on different delivery modes considering the territory of service delivery. A country's public services are defined territorially, which means that services are organised, delivered and consumed within national state borders. Service provision can be homogenous across the entire national territory, but most often it is focussed on a much smaller area that corresponds to the administrative boundaries of a regional / local authority or to another specifically defined service zone (e.g. inter-municipal area, wider urban agglomeration, regional tariff zones etc.). *Services that are consumed individually or collectively in a*

restricted geographic area are targetable, in the sense that providers can choose to focus their service on particular beneficiaries (i.e. targetable services) (Batley and Mcloughlin, 2015). This territoriality principle implies in areas that are located along a country's national borders that a delivery of country-wide or regional / local public services ends at the border and that domestic services do not take into account the situation immediately across a border.

In case of a CPS, stakeholders have different options to consider to ensure the service provision. Three main types of delivery modes can be distinguished.

- extension of an existing domestic public service to the other side of a border;
- coordination and harmonisation / integration of domestic public services that already exist on both sides of a common border;
- completely new CPS.

Box 2.9 Examples of different target groups for CPS

CPS can address a large variety of target groups. In this study target groups are defined as groups of organisations or persons that directly benefit from the CPS. The following presents some example of the variety of target groups.

- **Public authorities.** The Geographic Information System of the Greater region provides services for local and regional public authorities, particularly planning offices, in the cross-border regions between Belgium, Luxembourg, France and Germany. The German-Dutch police cooperation provides a framework for enhanced coordination between police stations in the border area.
- **Cross-border workers.** The Danish-German Regionskontor and Infocentre Job over grænsen as well as the EURES transfronterizo Extremadura-Alentejo primarily target cross-border workers or cross-border job seekers.
- **Students.** The Bilingual primary school Prosenjakovci, in the border region Pomurje and the Schengen Lyceum in Saarland, Germany, target pupils and students from their domestic region as well as from neighbouring areas across the border.
- **General public.** The trilateral nature park covering Austrian, Hungarian and Slovene territories is one of the few CPS that have a broad target group that can best be described as the general public. Inhabitants as well as visitors benefit from coordination efforts to nature protection and conservation.

CPS face always obstacles related to the transnational nature of their service development, in addition to the usual and common aspects in public service development, such as regulatory fitting, delivery design, planning of demand. The provision of public services can involve different forms of delivery, ranging from a uniform / standardised delivery to a highly variable delivery in case of services comprising tasks that have to be customised to serve a high level of heterogeneity of user needs. Examples for services that might be described as highly variable are clinical services (i.e. health care and treatments are highly oriented towards the

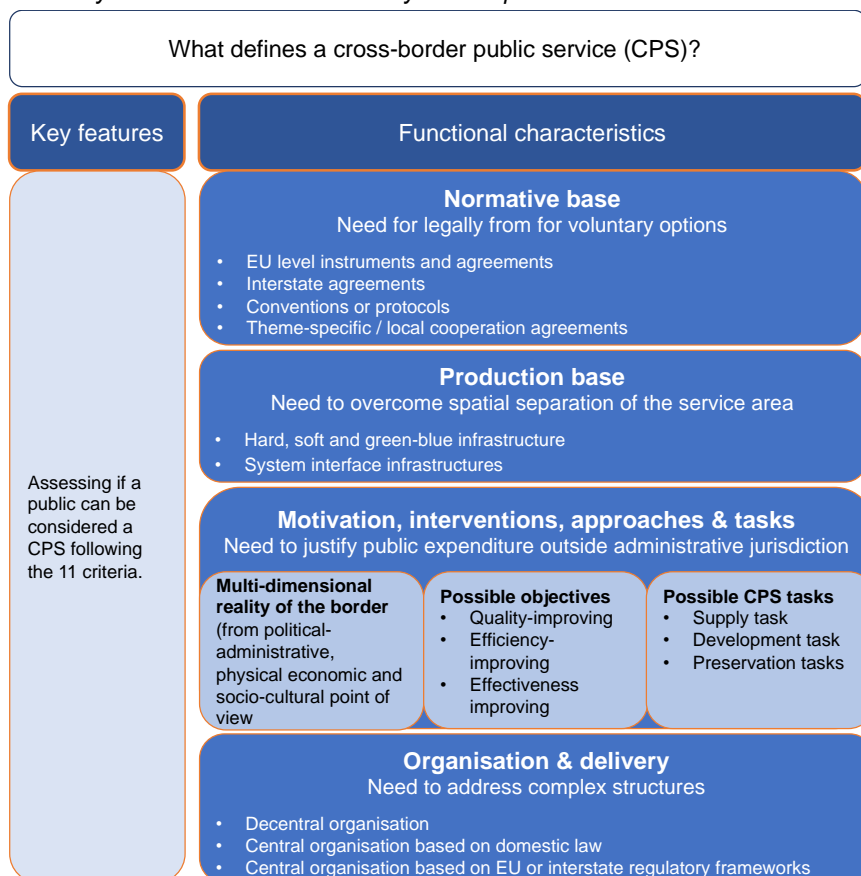
individual patients) or education (i.e. teaching has to consider different aptitudes, motivations, and learning styles of pupils), while sewage water treatment and drinking water provision correspond to uniform / standardised services (Batley and Mcloughlin, 2015). This variety hampers the development of general recipes for the development of CPS.

To sum up, the organisation and delivery of CPS are more complex than in the case of domestic public services. First of all, there is a need to formalise the cooperation across the border. This aspect is not necessary in case public services are provided within administrative boundaries. Secondly, CPS development and implementation requires generally more involved stakeholders, among others due to different domestic governance structures and competence levels. Thirdly the deliver mode would need to be considered. This can entail the establishment of a completely new CPS, a cross border extension of an existing domestic service, or coordination among domestic services across the border.

2.3 Conceptual framework for analysing CPS

Taking together the above discussions and considerations, the below figure summarises the conceptual framework for this ESPON target analysis. Both the understanding of the key features that differentiate CPS from other services as well as the key functional characteristics of CPS form the basis for the working steps in this study which are described in the following sections of this report.

Figure 2.1: Synthesis overview of the study's conceptual framework



Source: Service provider, 2018

3 Developing an inventory of CPS examples across Europe

The development of an inventory of CPS examples across Europe is a key step in this study. Having a better understanding of CPS existing across Europe, their geographical location as well as their key functional characteristics provides the reference framework for analysing the CPS in the case study areas and identifying good practices. The database of examples allows to compare the CPS development in the case study areas by putting the findings in context of general findings on the main rationales for CPS in different territories as well as the variety of their main characteristics, needs addressed, normative basis and the variety of governance models for implementing CPS. In addition, the mapping of examples of CPS supports creating awareness on the presence or lack of CPS in different border areas.

A comprehensive and structured European overview of CPS was not existing before and has thus been developed in this project for the first time. The aim has been to collect an inventory of examples of CPS all across Europe; collecting a complete overview however has not been possible during the project lifetime.

Compiling the overview entailed different steps which are detailed in the following. Four main sources of information have been utilised:

1. document review;
2. online survey;
3. stakeholder interviews;
4. workshops.

3.1 Document studies

Different secondary sources have been reviewed to identify examples of CPS throughout Europe. These document studies included the reviewing of

- documents provided by the regional stakeholders involved in this ESPON targeted analysis;
- examples found in inventories by European actors, e.g. the webpages of DG REGIO, DG EMPL, database for LIFE projects, lists of examples from the European Committee of Regions (CoR), MOT, the KEEP database for Interreg projects, documents from the BENELUX Union, etc.;
- lists of legal instruments applied such as the CoR's EGTC monitoring report but also inventories of legal bodies based on interstate agreements (if available);
- examples found in recent reports at European and national levels (see for a full list of resources the literature list in the annex);
- documents found at websites of the stakeholder's organisations and of the regions participating in this ESPON targeted analysis;
- other (thematic) documents found during research on areas of policy intervention.

The review of these documents included information collection on the CPS location, policy field, motivation, difficulties experienced, legal frame, governance structure, main activities, main results and contact details. The latter has been collected for compiling a sending list for the online survey. Information collection from document studies included categorising the available information. In most cases it did not provide a complete image of the CPS but rather a first hint regarding CPS development.

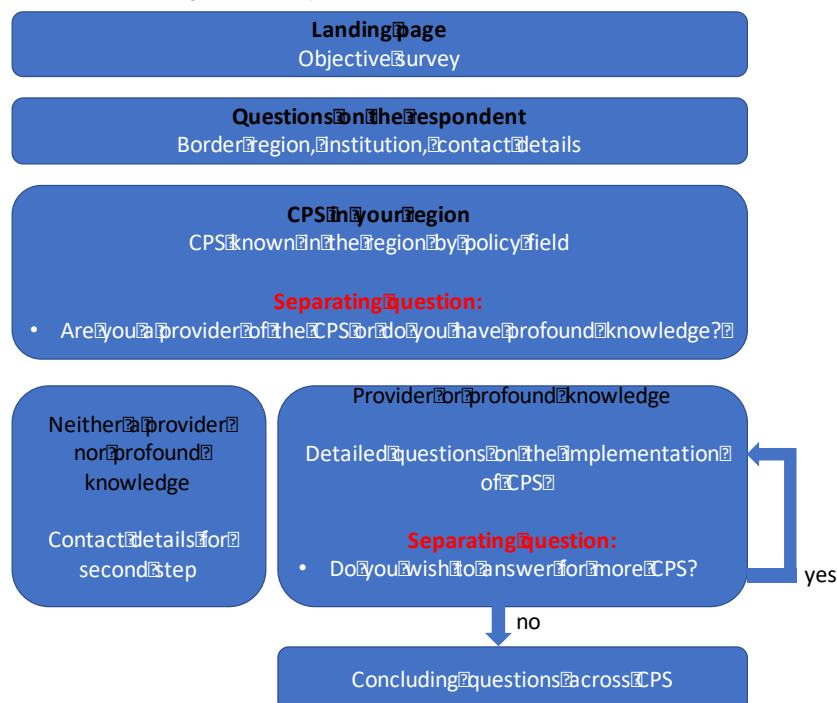
3.2 Survey

To complement the information on the CPS examples found through document studies and to collect more CPS examples an online survey has been launched. The online survey aimed at collecting more detailed information on the challenges overcome and benefits of CPS and has mainly been targeted at CPS providers or stakeholders with profound knowledge on the establishment and delivery of the CPS. The following sections discuss the survey set-up and design, the survey response rate and the method for analysing the survey results.

3.2.1 Survey set-up and design

As outlined above, the survey's objective was twofold. On the one hand, the survey collected details on CPS development and implementation. On the other hand, the survey allowed to collect new CPS that were not identified via document studies yet. This dual objective was visible in the main structure of the survey as illustrated in Figure 3.1.

Figure 3.1: Principle logic of survey structure



Source: Service provider, 2018

Survey respondents were differentiated by their level of knowledge on CPS development and implementation. Every respondent was asked to provide information about themselves and about the CPS they were aware of in the region. These general questions were followed by a separating question asking the respondents for a quick self-assessment on their level of knowledge. Respondents that are neither a survey provider nor have profound knowledge of the CPS they are aware of have been asked to leave contact details of providers so that they could be contact to complete the survey. Respondents that are CPS providers or have profound knowledge on the CPS were guided to questions on the CPS development and implementation following the main functional characteristics of CPS (see section 2.2). In case respondents could provide information on multiple CPS they were given this opportunity via a second separation question at the end of this section. Every respondent, with and without profound knowledge ended the survey with a few questions on future CPS development.

The survey included a mix of open and closed questions, providing a limited set of choices wherever suitable and allowing the possibility for respondents to specify their answers.

The online survey was available in seven languages, English, Danish, French, German, Portuguese, Slovenian, and Spanish taking into account the main languages of some of the stakeholder regions in order to increase response rates.

3.2.2 Survey response rate

In line with the survey's objectives and the main set-up of the survey, the survey's target group was twofold – respondents that could provide contact details of additional CPS providers and respondents with sufficient knowledge on CPS development and implementation. The latter was the main target group of the survey, to complement information in the database collected via document studies. The notion “sufficient knowledge” implies that a given stakeholder has knowledge on the motives and rationale underlying the provision of a CPS, on obstacles for introducing the CPS (solved or persisting ones) and on actual or potential solutions (e.g. changes in the legal or governance framework) as well as on the features characterising the actual service provision (e.g. delivery practices, scope of the CPS in terms of users etc., aspects related to the effectiveness and efficiency of the CPS, wider impact). Mostly, the service providers themselves will have the required knowledge.

The online survey was open from 31 January until 28 March 2018 and collected views from 211 respondents with and without profound knowledge on CPS. Detailed information on 93 CPS have been collected from these 211 respondents². The initial deadline of 15 March had been extended to allow more stakeholders from the case study regions to complete the survey. The following presents a key statistic from the online survey at European level. Other

² The number of reported CPS was smaller than the number of respondents because some respondents reported on the same CPS. Information on the same CPS from different respondents have then be brought together by the project team.

insights from the survey have been analysed and interpreted in the main report, the case study reports and to support the drafting of the good practice examples.

Table 3.1 provides an overview on the distribution of responses of the 93 CPS between the nine policy areas. The survey responses are not fully representative against the distribution of the CPS along themes and intervention field in the database. Hence, conclusions referring to individual policy areas have to be taken with care. Nevertheless, the survey findings provide valuable insights to CPS development.

Table 3.1: Number of responses per policy area

Theme / Field of intervention	Frequency	Share (%)
Transport	22	23.9
Spatial planning, tourism, and culture	14	15.2
Labour market and employment	13	14.1
Environment protection	12	13.0
Civil protection and disaster management	10	10.9
Citizenship, justice and public security	9	9.8
Education and training	8	8.7
Healthcare and social inclusion	4	4.3
Communication, broadband, and information society	0	0.0
Sum	92	100.0

Source: Online survey ESPON CPS 2018; n=92

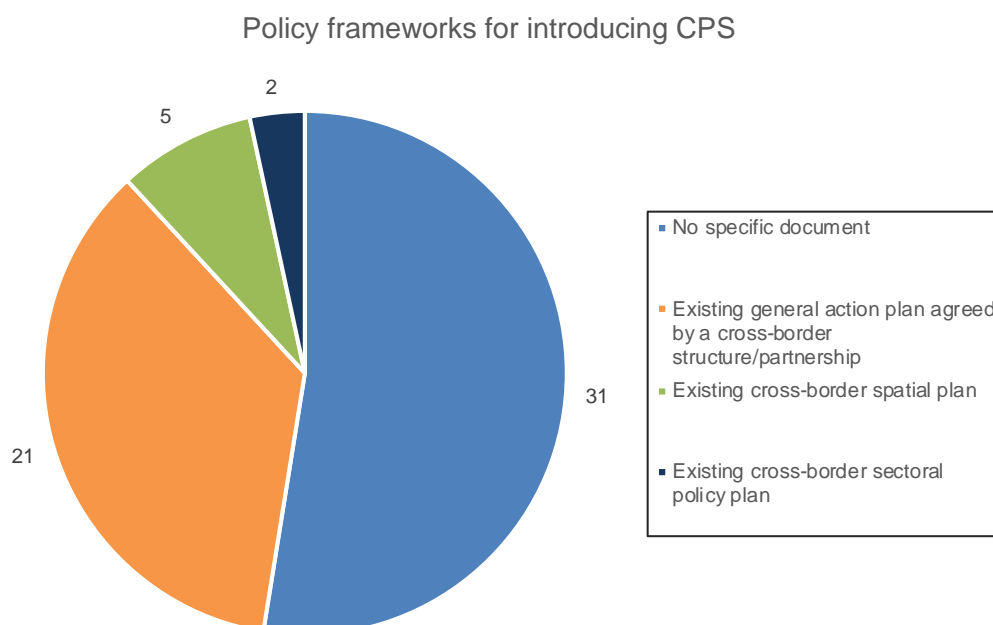
3.2.3 Selected survey results

The survey results have been primarily used to complement information on CPS collect via document studies. This entails that the results from the survey have been incorporated in the database of CPS examples. Furthermore the survey allowed to collect additional information on CPS development and implementation.

Survey data allowed to get a better understanding of the benefits and motives of CPS as well as on grounds on which they have been established such as the legal frameworks and governance models applied. Furthermore the survey collected data on the obstacles overcome in CPS development, the main target groups, the frequency of use, the delivery mode and the main benefits of CPS. These aspect are difficult to grasp in document studies.

Q1. Was the CPS introduced on grounds of a specific policy framework documents (e.g. territorial development concept, sector-policy plan etc.)? If, yes, please indicate the respective type of document.

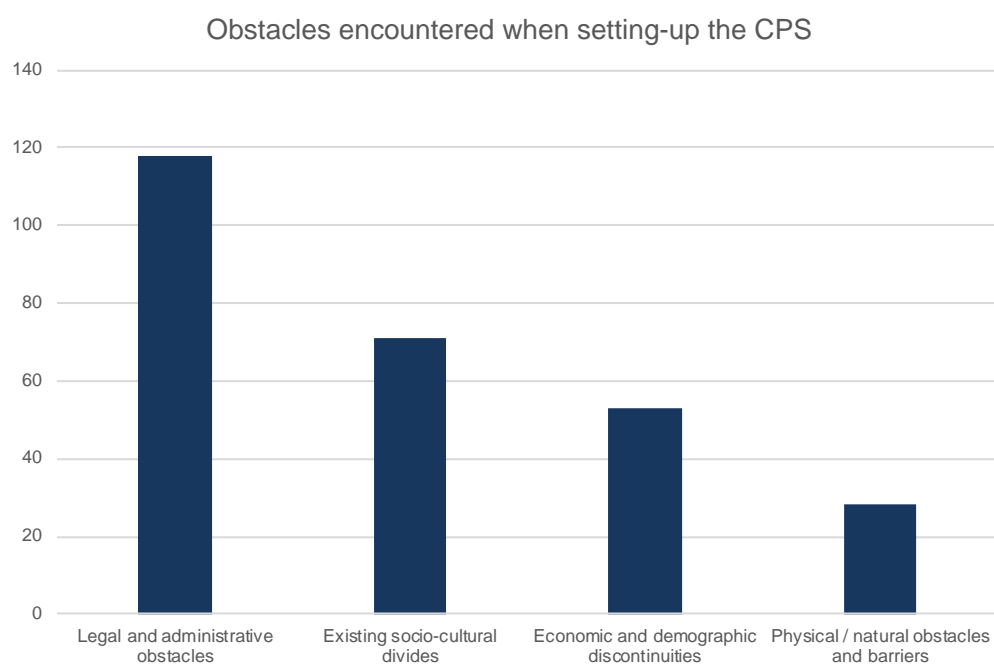
Figure 3.2: Policy documents used as framework for introducing a CPS



Source: Online survey ESPON CPS 2018; based on information from 77 CPS

Q2. What were the obstacles encountered when developing and setting-up the CPS? (multiple answers possible at both levels a... and i...)

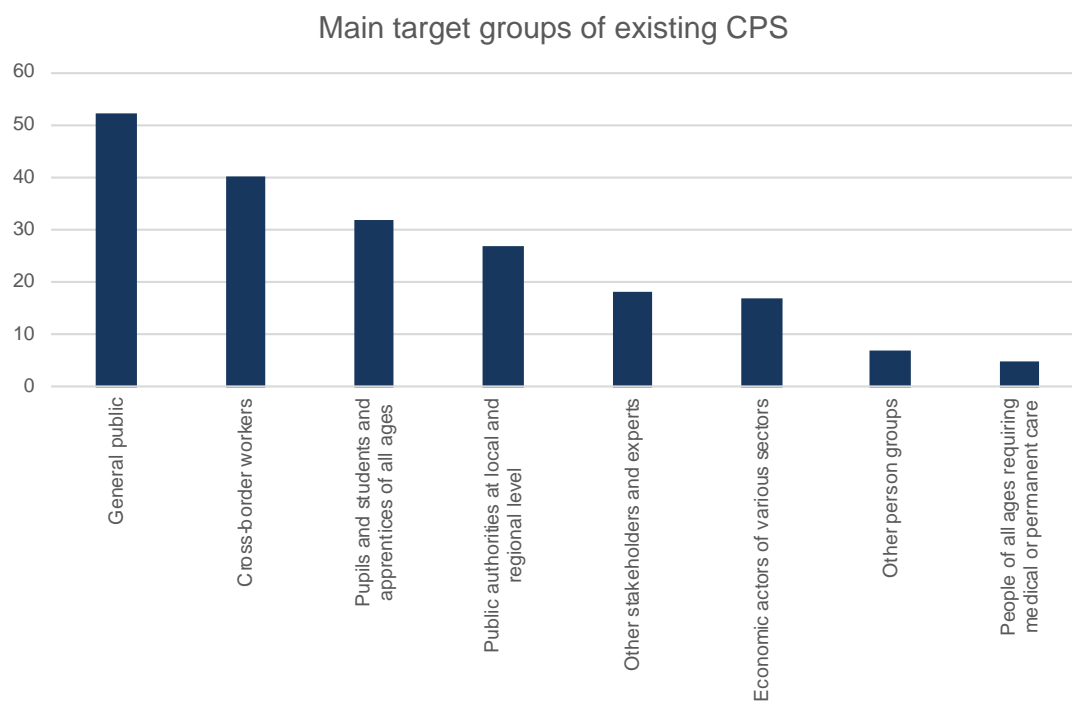
Figure 3.3: Obstacles encountered when setting-up the CPS



Source: Online survey ESPON CPS 2018; based on information from 73 CPS

Q3. What are the main target groups for the CPS? (multiple answers possible)

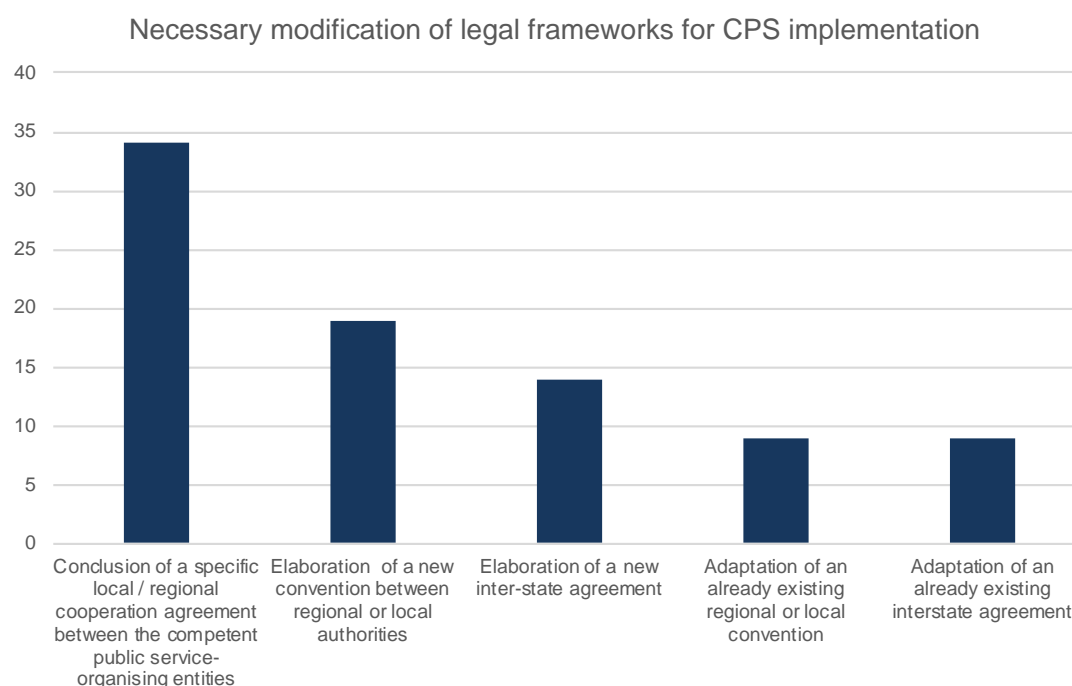
Figure 3.4: Main target groups of existing CPS



Source: Online survey ESPON CPS 2018; based on information from 78 CPS

Q4. What modifications of the cross-border legal framework were necessary to implement the CPS? (multiple answers possible)

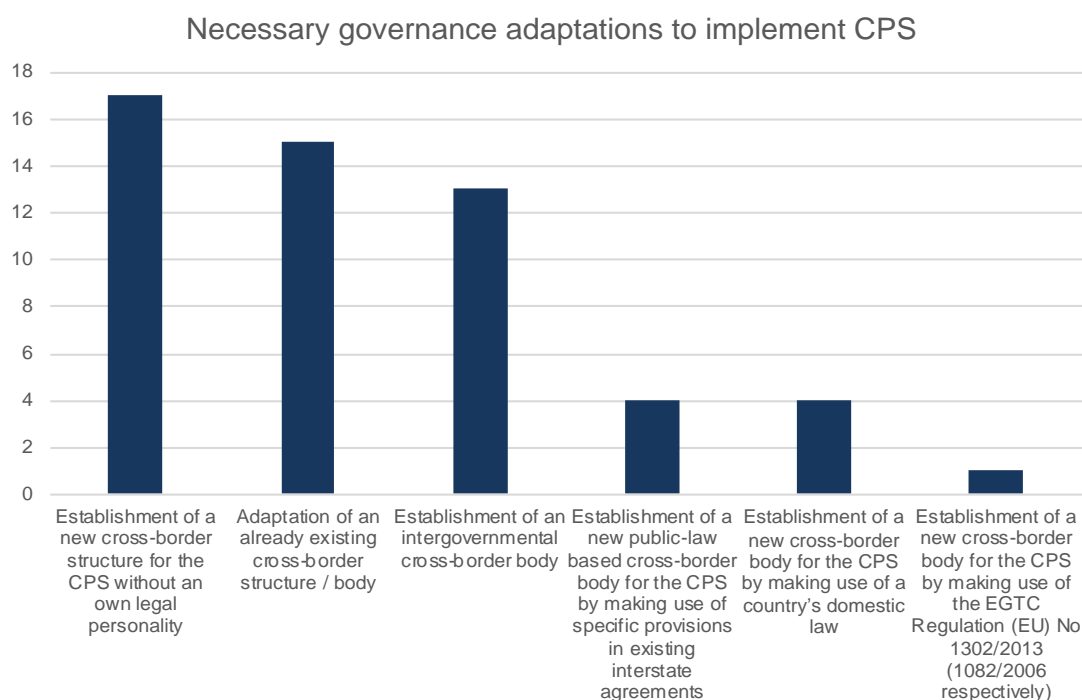
Figure 3.5: Necessary modification of legal frameworks for CPS implementation



Source: Online survey ESPON CPS 2018; based on information from 66 CPS

Q5. What adaptations of the cross-border governance framework were necessary to implement the CPS? (multiple answers possible)

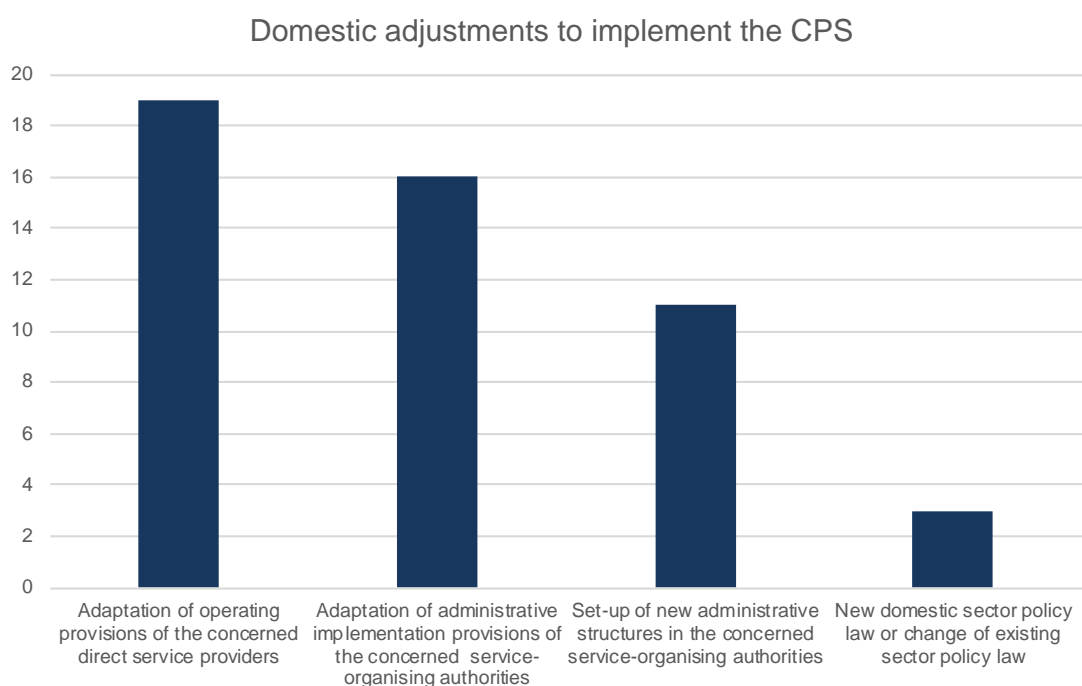
Figure 3.6: Necessary governance adaptation to implement the CPS



Source: Online survey ESPON CPS 2018; based on information from 58 CPS

Q6. What domestic adjustments (at national, regional or local level) were necessary on one or both sides of the border to implement the CPS? (multiple answers possible)

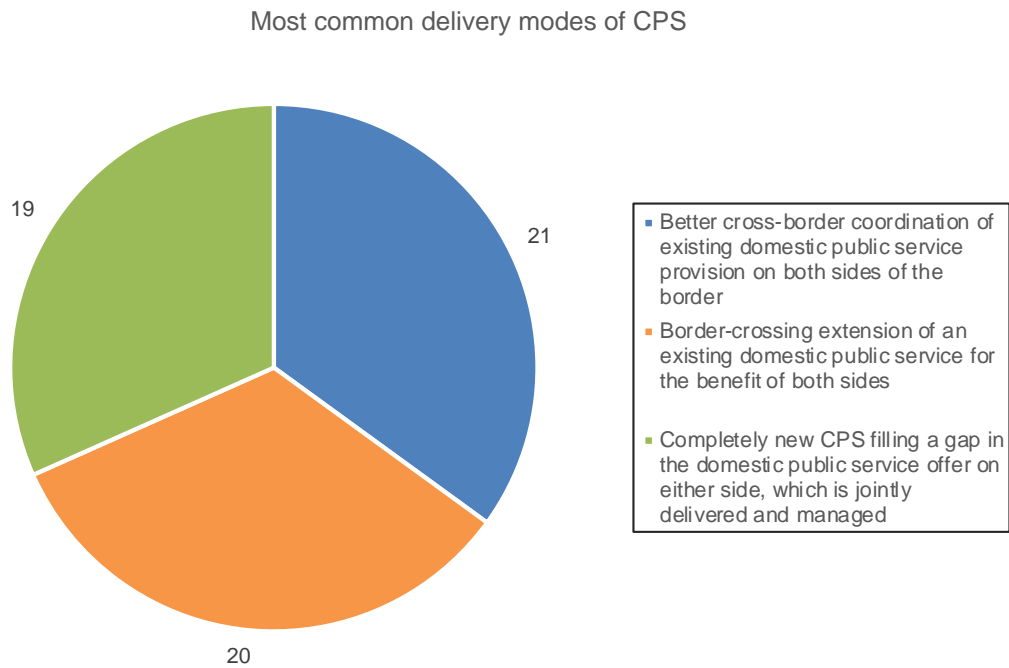
Figure 3.7: Domestic adjustments to implement the CPS



Source: Online survey ESPON CPS 2018; based on information from 53 CPS

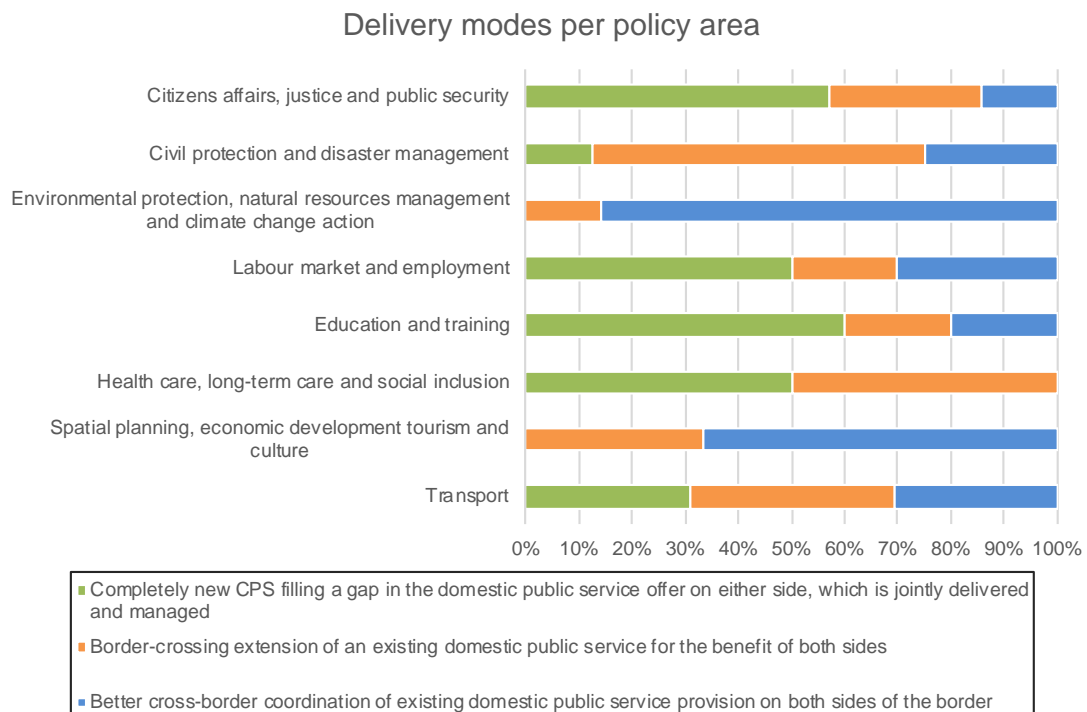
Q7. What is the delivery mode which characterises best the CPS? (one option only)

Figure 3.8: Most common delivery modes of CPS



Source: Online survey ESPON CPS 2018; based on information from 75 CPS

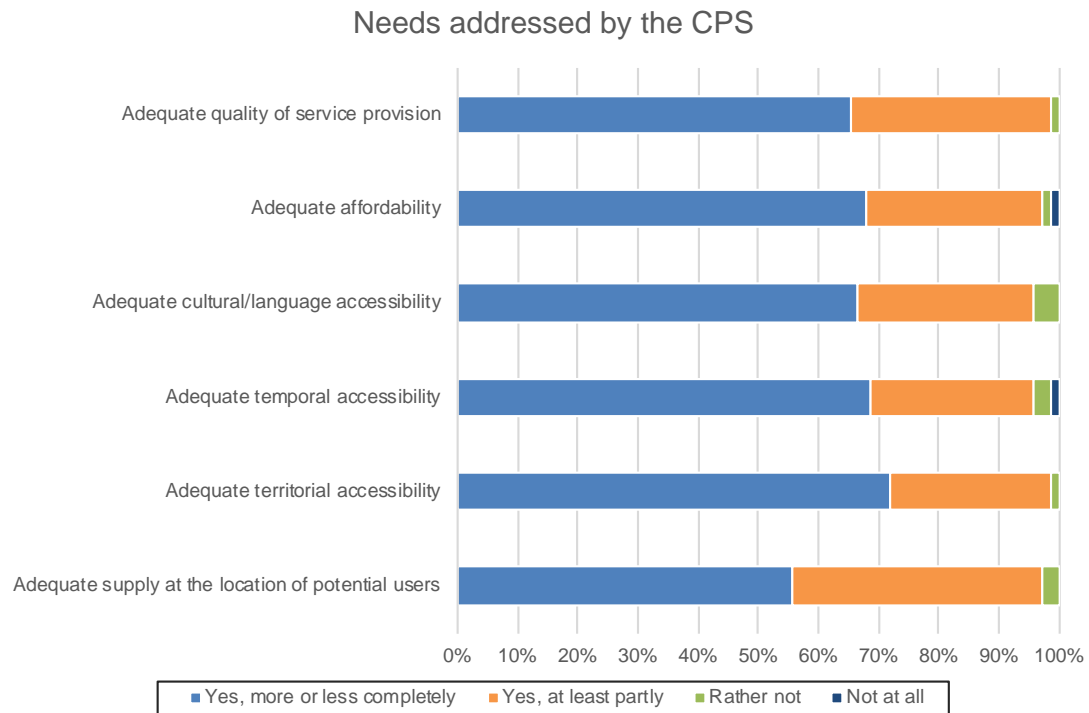
Figure 3.9: Most common delivery modes of CPS per policy area



Source: Online survey ESPON CPS 2018; based on information from 75 CPS

Q8. Would you consider the CPS as sufficient for addressing the needs originally identified?

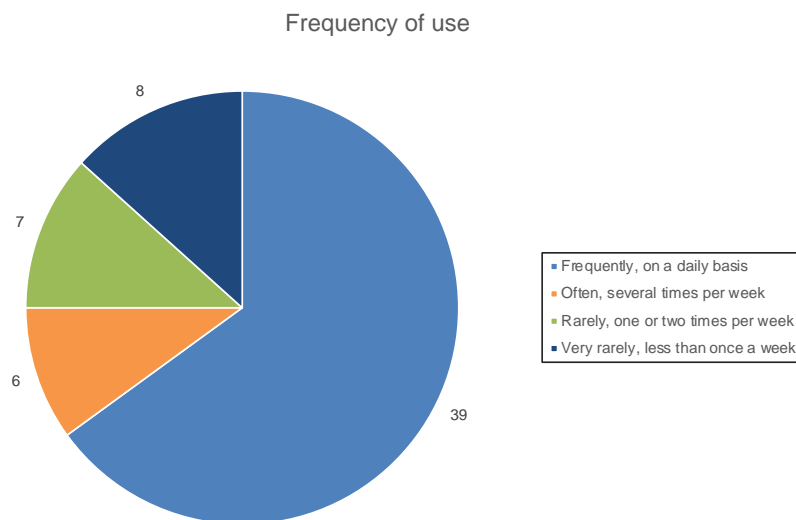
Figure 3.10: Degree to what extent the CPS addresses the intended needs



Source: Online survey ESPON CPS 2018; based on information from 72 CPS

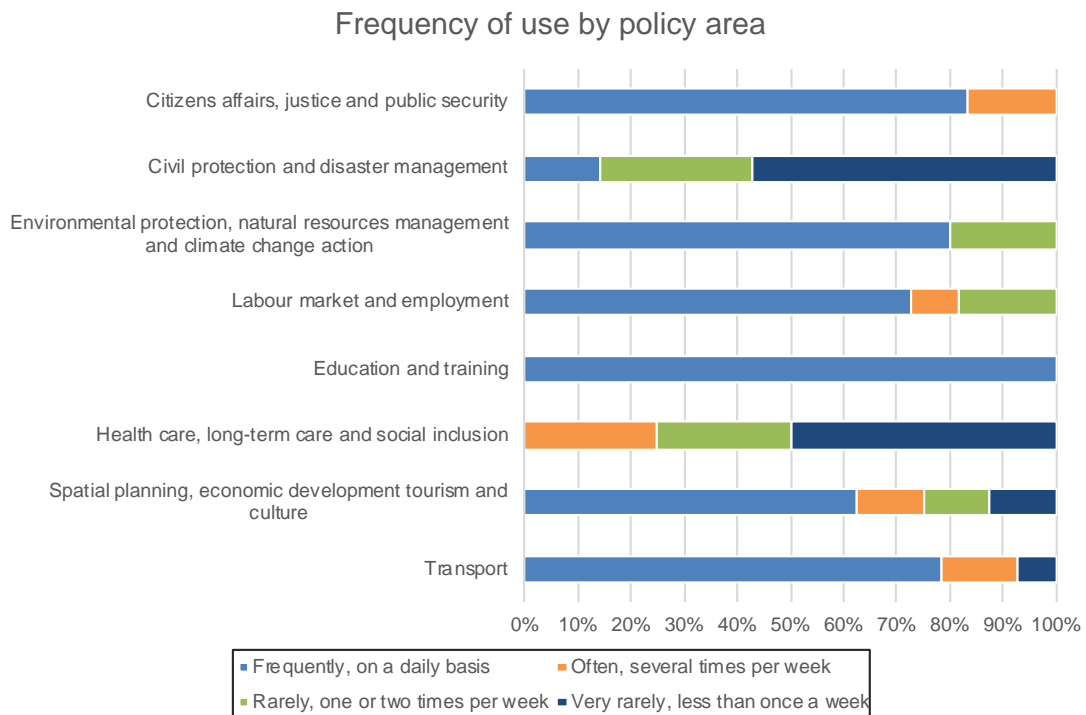
Q9. How often are the services being used by local population? If none of the categories is appropriate for the CPS you are referring to, please add information in the open answer option. (Note: this questions could not be answered by some types of CPS, for instance, emergency response or disaster management)

Figure 3.11: Frequency of use



Source: Online survey ESPON CPS 2018; based on information from 74 CPS

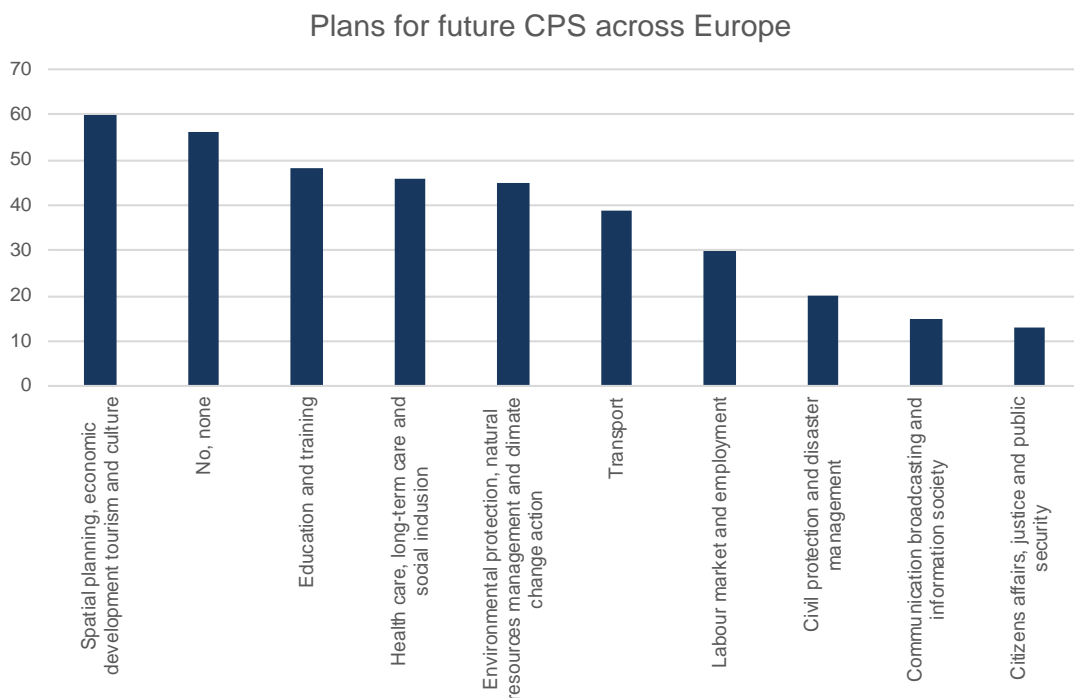
Figure 3.12: Frequency of use by policy area



Source: Online survey ESPON CPS 2018; based on information from 74 CPS

Q10. Are there any plans to introduce new CPS in near future in your region? If yes, please indicate relevant CPS in the list (multiple answer possible)

Figure 3.13 Plans for future CPS in Europe

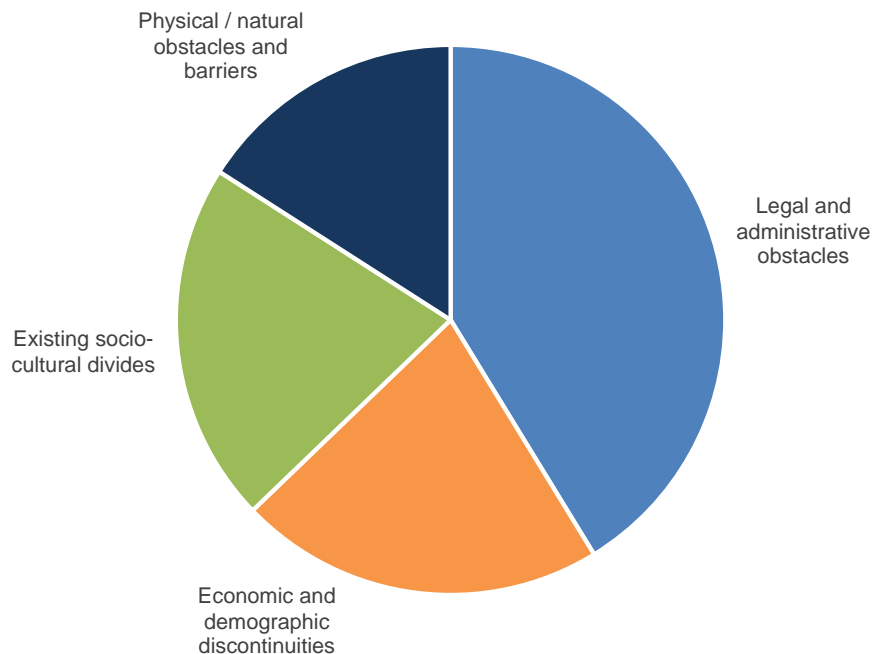


Source: Online survey ESPON CPS 2018; based on 134 replies, 61 respondents indicated more than 1 field of intervention or theme

Q11. Why is the CPS not yet provided? What are the hampering factors? (multiple answers possible at both levels a... and i...)

Figure 3.14 Hampering factors for the establishment of future CPS

Hampering factors why future CPS have not been provided yet



Source: Online survey ESPON CPS 2018; based on 86 replies, 73 respondents indicated more than challenge

3.3 Stakeholder interviews

As part of the preparation of the case study reports, a number of expert interviews were conducted in each case study area. Depending on the region, interviews were conducted with various experts, including those from the Euregios/regions itself, with CPS service providers or with responsible decision-makers for certain policy areas. The selection of the interviewees reflects the main current or future CPS needs within the case study area.

Interviews followed a list of guiding questions. They were carried out in personal meetings, by telephone or in writing. Overviews about the list of interviewees are provided in the individual case study reports. Like the online survey, the interviews were intended to

- (i) complement the CPS information collected from document review;
- (ii) identify missing CPS;
- (iii) collect detailed information on a CPS as regards the motivations, administrative and legal conditions and set ups, objectives, service providers, and usages and impacts of the CSP;
- (iv) collect information about future CPS needs or wishes.

The number of conducted interviews per case study varied, reflecting the regional conditions.

3.4 Workshops

One or two workshops were organised in each case study region. The main objective of the workshops was to discuss future needs of CPS in the region. After having identified one, two or three main fields of interventions, where the case study regions see needs for further services, the workshops were set up in a way to bring together the relevant stakeholders from within the regions dealing with the selected topics.

Although the main workshop's intention was to discuss needs, wishes, options and possibilities for future CPS, existing CPS were also discussed since often future CPS were either intended to be a further development of an existing service or to close a gap of an existing CPS.

The length, content, structure and participants of the workshops were not predetermined and therefore varied between the case studies. The workshops were organised and carried out by the stakeholders in close consultation with the project team.

In any case, additional information on existing CPS that was revealed through the workshops was noted down and integrated with the information compiled through the other means.

The detailed workshop results are presented, analysed and synthesised in the individual cases study reports.

3.5 Database and mapping

The following sub-sections detail the CPS database development. This includes an overall description of the database structure, the approach for geo-referencing identified CPS and assigning them to border segments. In addition CPS database development required certain harmonisation efforts using classifications for target groups, legal frameworks and governance and delivery modes. The applied classifications are detailed in sub-section 3.5.4. The section closes with a short reference to the following analysis and mapping exercises. Detailed results of the mapping with a detailed EU wide analysis of current CPS provision is provided in Annex I to this Scientific Report.

3.5.1 Database structure

All information gathered for the CPS through documents review, stakeholder information and stakeholder interviews, through the survey and via workshops were compiled into a database, the so-called **inventory of CPS in Europe**.

Information has been successfully collected for all border regions in Europe. Although various methods of data collection have been applied (see previous chapters), the database cannot and will not claim to be exhaustive, and is thus called *inventory of CPS examples*. Nevertheless, this database can be considered as the first of its kind in Europe.

The inventory includes all the information compiled via the different collection methods. Due to the different nature of the information collected, and to accommodate them in the database

most efficiently, the inventory in fact consists of four different datasets (Table 3.2), one table and three geodata sets:

Table 3.2: Database structure

Type of	Format	Content	Usage
Table	Excel	Overall table storing all information gathered, whether numeric, categorized, (con-)textual. A complete overview of the table content is given below in Table 3.3.	Full overview, analysis, selection of subsets, generation of summary tables and analytical charts
Geodata set	Polyline shapefile	Geographical information about the service providers and spatial coverage of the service. Includes only a subset of the overall information collected for each CPS.	Spatial analysis, mapping and cartographic products.
	Point shapefile	Geographical information about the location where the service is provided. Includes only a subset of the overall information collected for each CPS.	
	Polyline shapefile	Geographical information on the number of CPS per border segment	

Source: Service provider, 2018

Each column in the Excel table corresponds to one piece of information collected. The available columns and their contents are presented in Table 3.3. Since some of the compiled information are contextual information with rather lengthy texts, not all of these columns were transferred into the geodata sets. By way of consequence, the polyline and point shapefiles only accommodate a reduced number of columns, focussing on those information that can and make sense to be mapped and spatially analysed. The last column in Table 3.3 indicates whether or not the column is available in the geodata sets.

Table 3.3: Structure of the CPS database (Excel file)

Column header	Type	Content	Inclusion in geodata set
CPS_NO	numeric	Unique number for each individual CPS. Can be used to identify any CPS, and to link the Excel table with the geodata	✓
NOPOL	numeric	Unique number for each individual CPS within policy area	✓
BORDER_CC	character	Indication of border area. The countries concerned are abbreviated by their 2-digit ISO country codes. A CPS along the French-German border is indicated as 'DE-FR', a CPS along the Finnish-Norwegian and Swedish border as 'FI-NO-SE'. This column can be used to quickly select all CPS along a certain border or between two or more specific countries.	✓
BORDER_NO	character	A list of unique ID numbers of the border segment which the CPS is crossing. Different border segments are separate by commas. Used to link the table with the border polyline shapefile, and to produce statistics on the number of CPS per border segment (see below).	✓
CC_NO	numeric	Number of countries covered by the CPS. Usually 2 countries are covered, sometimes also 3, 4 or 5 countries.	✓

EXTENT	character	Information about the spatial extent or spatial coverage of the CPS. This information was used as basis for the georeferencing of the CPS	✓
CS_NAME	character	Name of the case study, where the CPS is located. Column is empty if the CPS is not covering any case study: <ul style="list-style-type: none"> - Alentejo-Extremadura-Andaluzia - BothnianArc - Euregio Bayerischer Wald-Böhmerwald-Unterer Inn - EuRegio Salzburg-Berchtesgadener Land-Traunstein - Euregio Scheldemond - Euroregion Elbe/Labe - Galicia-Norte de Portugal EGTC - Pomurje Region - Region Sønderjylland-Schleswig - South Karelia 	✓
CS_ID	numeric	Unique ID of case study area. Column empty if the CPS is not covering any case study: <ul style="list-style-type: none"> - 1 (Alentejo-Extremadura-Andaluzia) - 2 (Euregio Scheldemond) - 3 (Euroregion Elbe/Labe) - 4 (Euregio Bayerischer Wald-Böhmerwald-Unterer Inn) - 5 (BothnianArc) - 6 (Region Sønderjylland-Schleswig) - 7 (Galicia-Norte de Portugal EGTC) - 8 (Pomurje Region) - 9 (EuRegio Salzburg-Berchtesgadener Land-Traunstein) - 10 (South Karelia) 	✓
STATUS	character	Information on the actual status of the CPS: <ul style="list-style-type: none"> - OPERATION standard) - CEASED (if the service if stopped) - INTERRUPTED (if the service is currently interrupted) - PLANNED (future CPS) 	✓
TITLE	character	Name / title / label of CPS	✓
THEME	character	Field of intervention of the CPS: <ul style="list-style-type: none"> - Citizenship, justice and public security - Civil protection and disaster management - Communication, broadcasting and information - Education and training - Environment protection, natural resources - Healthcare, social inclusion - Labour market and employment - Spatial planning, economic development, tourism, culture - Transport 	✓
SUBTHEME	character	Indication of the subtheme: two numbers separated by underscore, where the first number indicates the theme and the second number the subtheme (example: 1_1)	✓
ESTABL	numeric	Year when CPS was established. Missing information indicated by '-9999'	✓
MOTIVES	character	Motives and rationale for developing the CPS	✗
DIFFICULTIES	character	Difficulties and obstacles faced	✗

LEGFRAME	character	Legal framework for establishing the CPS: - Convention or protocol - European strategic document / regulation - Interstate agreement - Specific local / regional cooperation agreement - '.' (no information available)	✘
STAT_LEGFRAME	character	Status of legal framework: - '.' (no information available) - existing / adapted - new	✘
GOVERNANCE	character	Governance structure: - '.' (no information available) - Central with legal personality domestic law - Central with legal personality interstate agreements or EU law - Operated in network	✘
DELIVERY_MODE	character	Delivery mode: - '.' (no information) - Better cross border cooperation - Border crossing extension - Completely new CPS	✘
TARGETS	character	Main target groups of CPS (see below)	✔
SUBTARGETS	character	Detailed target groups of CPS (further differentiation, see below)	✔
EFFECTS	character	Short description of the effects, key success factors and impacts of the CPS	✘
OTHERS	character	Any other information	✘
SOURCE	character	Information on source and resources to obtain further information	✘

Source: Service provider, 2018

3.5.2 Georeferencing of CPS

In order to develop a geodata sets of CPS in Europe to map and spatially analyse the services, coordinates need to be assigned to every CPS. When compiling the CPS information through document review, online survey, interviews and workshops, information on the geographical extent of each CPS have been compiled, but no coordinates.

It appeared that the geographical reference of the CPS are quite diverse:

- There are CPS that, although having cross-border dimension, are provided at just one place or by just one service provider.
- There are CPS that are established between two service providers or two places at either side of a border.
- There are CPS consisting of a network of service providers or a network of places where the service is provided (three or more places of service provision).
- There are CPS covering a certain area (such as nature parks) or line (such as public transport lines).

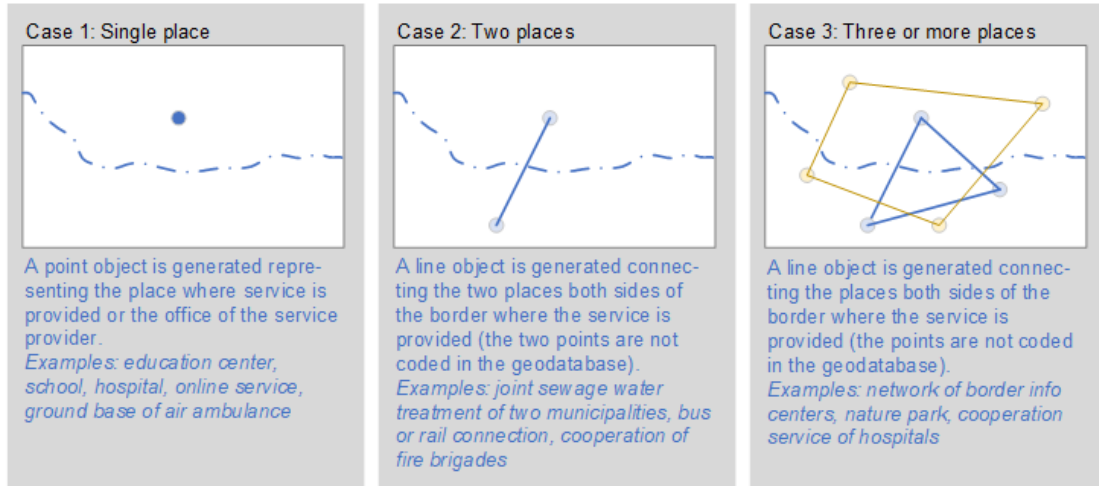
In order to cope with this variety, two geodatasets were generated:

- (a) A point shapefile capturing case (i), i.e. cases where the CPS is provided at just one place or by just one service provider

- (b) A polyline shapefile capturing all other cases. In case where three or more places were connected, the shape is closed, i.e. the polyline results in a triangle or polygon.

This process is illustrated schematically in Figure 3.15. The information on the geographical extent were then utilised to georeference the CPS in a manual process.

Figure 3.15: Georeferencing CPS



Source: Service provider, 2018

It is worth mentioning the following limitations of this assignment:

- The geographical information collected did not allow for a highly accurate, address-based georeferencing. Instead, CPS were georeferenced with a city level precision.
- For polylines connecting three or more places, the delineated space (i.e. triangle or polygon) just roughly indicates the territory that is covered or served by the CPS. However, it is not meant to delineate the entire (legal, formal, de facto) service area. And it does not reflect the boundaries of officially delineated areas such as nature parks or river basins.
- In some cases, the information about the spatial extent of a CPS were quite “vague” or inaccurate. In these cases, a best possible approximation of the area covered was tried to be achieved, given the available information.

3.5.3 Assigning CPS to border segments

Figure 3.16 illustrates the process of assigning CPS to segments of national borders in order to count and analyse the number of CPS per border segment. The process of assigning CPS to border segments involved several steps in an iterative process, as follows:

- 1) **Segmentation of national borders**: All national borders in Europe were divided in a way that each segment between NUTS-3 boundaries was treated as an individual border segment. Each of these segments was then assigned a unique ID (1, 2, 3, 4, ...).
- 2) **First CPS**: The locations of the service provision of the first CPS on either side of the border were georeferenced using the principles explained in sub-section 3.5.2, and were

then linked by a straight virtual line (red dotted line in Step 2 in Figure 3.16), crossing the national border.

- 3) **National border count:** The segment(s) of the national border crossed by this virtual line was (were) selected, and the number of assigned CPS for the segment(s) was increased by one.
- 4) **Next CPS:** Then, the locations of service provision of the next CPS were georeferenced and also connected by straight virtual links (dotted light blue lines in Step 3 in Figure 3.16).
- 5) **National border count:** Again, national border segments crossed by the virtual lines were selected, and the number of assigned CPS increased by one for each of these segments.
- 6) **Specific cases:** Sometimes, a CPS is provided only at one place (for instance, a centralized training center), so that it is not possible to connect two or more locations on both sides of the border. In this case, the place of service provision was georeferenced, and the closest national border segment was selected and assigned accordingly (Step 4 in Figure 3.16).
- 7) The last three steps were repeated until all CPS in Europe were assigned to national borders. As far as possible, this was automated by scripts in the GIS environment.

Depending on the border alignment and the spatial configuration of the CPS, a CPS may cross one or several border segments. In the latter case, the CPS is counted for each border segment. By way of consequence, summing up the border counts per case study may result in higher numbers than the total number of CPS in that area.

In view of accuracy of the CPS georeferentiation, the assignment to border segments must be understood as indicative. The main objective is to get an idea about the spatial distribution and density of CPS along European borders. Eventually, a polyline shapefile of European borders was generated³ holding the attribute fields detailed in Table 3.5.

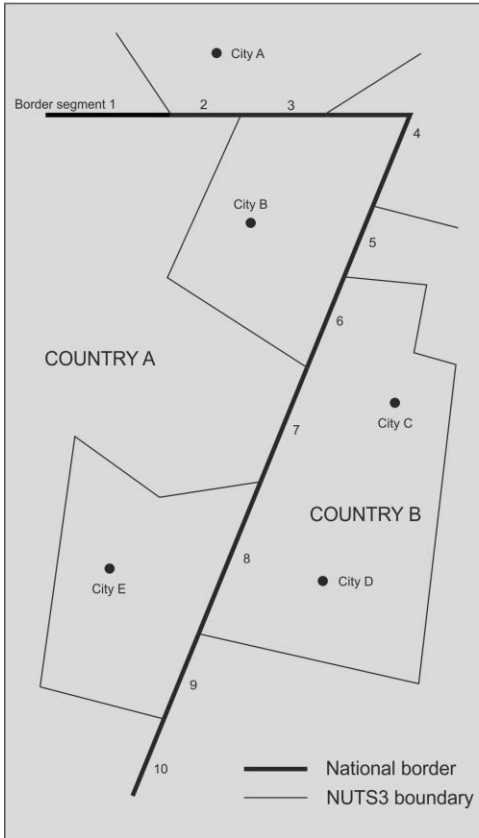
Table 3.4: Fields associated with the border polyline shapefile

Field	Type	Content
CC	character	2-digit ISO country codes of the two countries concerned. The country codes are separated by a blank. For example, the Dutch-Belgian border is indicated as 'BE NL'
NUMB	numeric	Unique number of border segment
BORDER_TYPE	character	Type of border: - Non-EU – non-EU - EU – non-EU - Old internal EU - New internal EU - Old-new internal EU
NOCPs	numeric	Number of CPS crossing the border segment

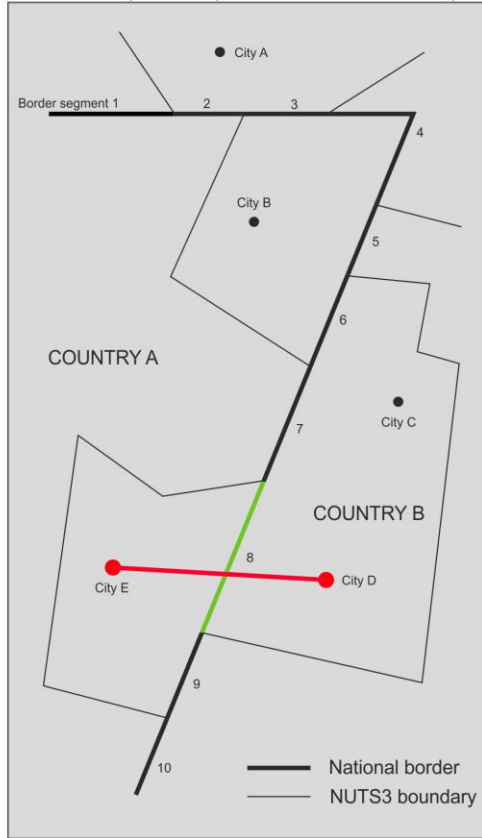
³ The geometries of the borders were taken from the "national_borders" polyline shapefile provided by ESPON EGTC as part of the ESPON EU-Wide Mapkit. Thus, the resolution and spatial accuracy of this layer reflects those of the mapkit.

Figure 3.16: Process of assigning CPS to national border segments

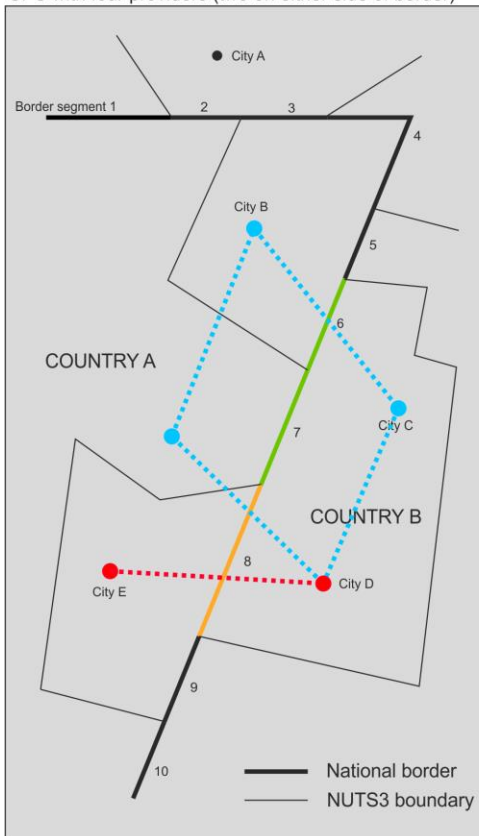
Step 1. Segmentation of national borders



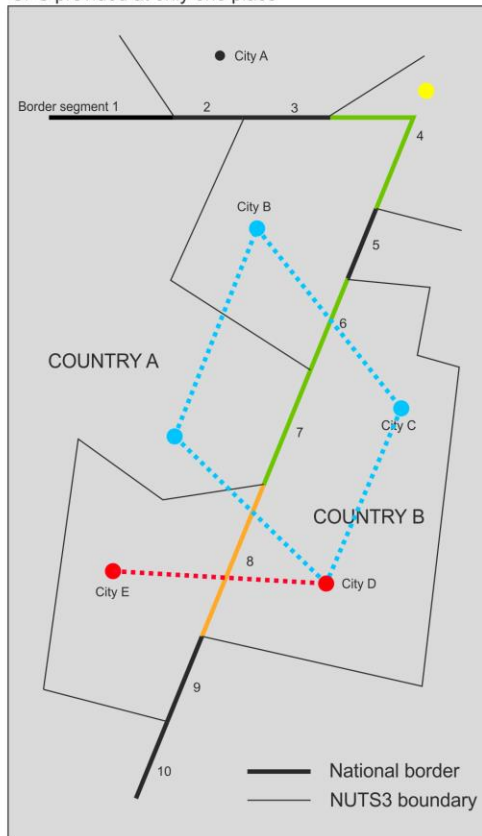
Step 2. Assignment of first CPS to border segment: CPS with two providers (one on either side of border)



Step 3. Assignment of next CPS to border segments: CPS with four providers (two on either side of border)



Step 4. Specific case: CPS provided at only one place



Source: Service provider ESPON CPS, 2018

3.5.4 Classification and harmonisation

The information collected has been classified and thereby harmonised in a few standard categories. These categories supplement the available texts in the database and allow for easy comparison, searching and selection, grouping, mapping and analysis. The classification is done with care via an as much as possible standardised way. Nevertheless the classification remains subjective based on the available information in the database. In case no information was present, or the information did not allow for classification a dot “.” Has been added in the cell of the database.

- **Target groups and sub-targets.** Who directly benefits from the CPS?

11 target groups have been defined in the column TARGETS (Table 3.3). Some of the target groups have been further differentiated (see column SUBTARGETS in the database) specifying detailed targets. The 11 target groups with their sub-targets are:

- Public authorities
 - o Fire brigades and rescue
 - o Hospitals
 - o Planning authorities
 - o Police and customs
 - o Schools and universities
 - o Sectoral authorities
- Tourists
- General public
 - o Public transport users
 - o Residents
- Pupils, students and apprentices
- Job seekers
- Cross-border workers
- Economic actors
- People of all age requiring medical or permanent care
- Researchers
- Other stakeholder groups
 - o Health insurances
 - o NGOs
- Other person groups
 - o Athletes
 - o Elderly people and people with disabilities

The targets and so the sub-targets are not mutually exclusive. One CPS may be assigned to one or more target or sub-target groups. For example, a rail CPS may at a glance be targeted at the general public; however, in detail it may focus on tourists. Likewise, a CPS in the field of environment may be targeted primarily at public authorities; as a side effect, certain NGOs may also be addressed with the service. Consequently, a CPS may have one or more target groups, and no further, one or several sub-targets assigned.

- **Legal frames.** Which type of legal documents make the CPS possible?

Four basic types of legal frames have been identified and stored in column LEGFRAME (see Table 3.3). In addition, column STAT_LEGFRAME displays whether the legal frame is **new**, specifically concluded for this single CPS, or whether it was already **existing** and

the stakeholders of the CPS could simply use this as legal basis or had to slightly **adapt** it (maybe in a specific local / regional cooperation agreement / strategy). The legal framework may be described as follows:

- **Type 1: EU Regulation on “European Groupings of Territorial Cooperation” (EGTCs) and other EU regulations or EU directives.** CPS-relevant policy areas where these are applied are public local transport, health care, cross-border workers, river basin management and flood prevention, and others.
- **Type 2: Multilateral conventions or treaties and bilateral interstate agreements** establishing overarching legal frameworks for general decentralised cross-border cooperation. Examples of these are the Treaty of Helsingfors; the Nordic Agreement on Cross-border Co-operation and the bilateral or multilateral interstate agreements based on the Council of Europe’s Madrid Outline Convention.
- **Type 3: Theme-specific interstate agreements (e.g. framework agreements, memorandum of understanding, protocols, exchange of notes etc.),** determining the general principles and scope of cooperation as well as the precise legal / administrative context and content of cooperation in a particular policy field of relevance for CPS.
- **Type 4: Regional or local cross-border cooperation agreements,** frequently concluded between the competent public service organising / ordering authorities and the directly concerned service providers (e.g. hospitals, social insurances or employment agencies, transport operators, educational institutions etc.).

These four basic types then might be combined in different ways, depending on the individual CPS. So, in the database, next to the dominant type, combinations were assigned.

- **Governance.** What is the main management and organisation structure of the CPS?

Three different types of governance of CPS have been derived from the collected information and are provided through column GOVERNANCE of the excel file (see Table 3.3) :

- **Central with legal personality interstate agreement or EU law.** Every single organisation under the Madrid, Valencia, Anholt, Karlsruhe etc. conventions + EGTC regulation.
- **Central with legal personality domestic law.** All types of central organisations and management structures based on national legal personalities (GmbH, BV, Sarl, Srl, associations etc.).
- **Operated in network.** All non-centrally organised CPS and thus without single legal personality. This can be networks of different organisations that agreed to provide the same service on both sides of the border, or different agreements for better coordination, e.g. agreements on rescue and firefighting services.

- **Delivery mode.** How is the CPS delivered in comparison to domestic services?

The delivery mode indicates how the CPS is implemented and what type of added value they bring to the cross-border region. Available categories in the database (column DELIVERY_MODE, see Table 3.3) are:

- **Completely new CPS.** There was nothing like this service in the region before or the service operates in parallel to similar domestic services.
- **Border crossing extension.** When a domestic service is allowed to broaden its scopes and also target population at the other side of the border,
- **Better cross-border coordination.** When different players in the region agree to harmonise or coordinate their service delivery. This applies to some agreements, e.g. in civil protection where the agreements support coordinated actions or coordinate infrastructure across the border (connect points for fire hoses of the same size).

3.5.5 Mapping and analyses

The database described above has been used to analyse and map the CPS in Europe, and to produce extracts for each case study and for each theme which in turn were used as inputs to stakeholder interviews and workshops.

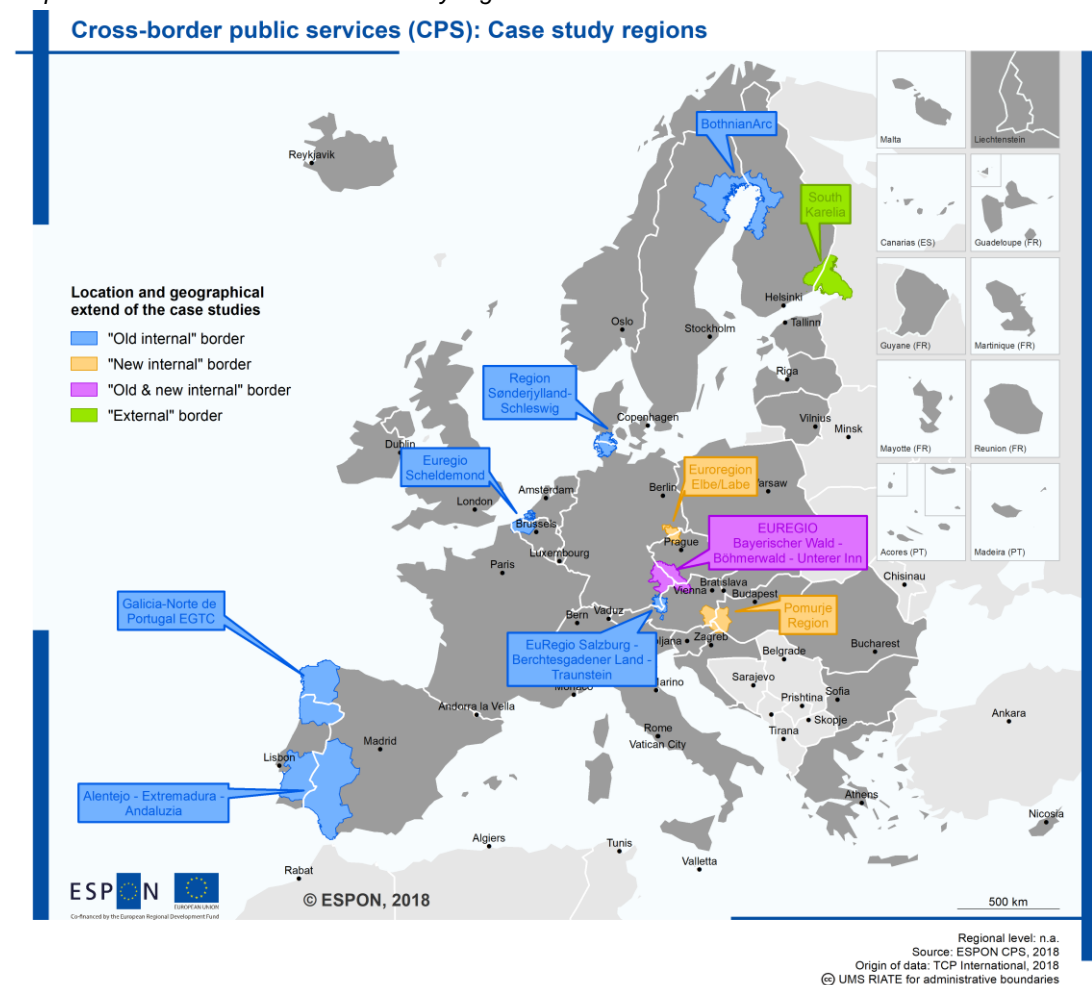
All maps were produced by using the ESPON standard map templates provided by ESPON EGTC. Apart from European-wide maps, new map templates (zoom-in maps) for each case study were developed tailored to the extent and needs of each case study.

4 Case study analysis approach

Case study research helped to identify territorial needs, problems and potentials of CPS from an in-depth perspective. The case study research results in a large variety of in-depth knowledge on the rationales, key hampering factors and possible solutions for CPS development. The case studies illustrate different territorial needs and potentials for CPS and solutions or steps to be taken for CPS development. Furthermore, case study research guides the regional stakeholders in the case study areas to further CPS development.

Case studies have been performed in the ten stakeholder regions of this ESPON Targeted Analysis. Map 4.1 illustrates the locations of the ten case study areas.

Map 4.1: Overview of case study regions



The collection of case study regions address different types of borders contributing to collection a larger variety of needs, problems and potential to CPS. Six of these areas are located along "old internal" borders (BothnianArc, Region Sønderylland-Schleswig, Euregio Scheldemond, EuRegio Salzburg-Berchtesgadener Land-Traunstein, Galicia-Norte de Portugal EGTC, and Alentejo-Extremadura-Andaluza), two are located along borders between old and new EU Member States (Euroregion Elbe/Laabe, Pomurje Region), and one

is located each between old and new member states (EUREGIO Bayerischer Wald-Böhmerwald-Unterer Inn) and along an external border (South Karelia-Russia), respectively.

The case study research results in the formulation of two types of recommendations. Firstly, for each case study regions recommendations are developed on the potentials and next steps to be considered to further CPS development. Due to the different level of experience with CPS in the case study regions, individual expectations vary. Secondly, findings from the case study regions feed into other recommendations and project outputs such as the practical guide.

Recommendations are based on a triangulation of data sources and analyses. In line with the terms of reference, case studies include

- a comprehensive information on existing CPS;
- a structured overview of identified objectives and obstacles for existing CPS;
- a mapping of existing CPS in terms of their main features;
- an analysis of prospective CPS development potentials and long-term CPS needs;
- challenges to overcome current problems in establishing CPS;
- an identification of CPS that are currently missing in the areas;
- recommendations for further CPS development both for new or extended existing CPS.

The in-depth research for all these points follows the key functional characteristics of CPS presented in Chapter 2. The four key characteristics as used in the case studies are the red thread. To provide a complete overview of the CPS in the case study area each functional characteristic is discussed as well as their combination. The starting level as well as the state of play of CPS in development in the region defines the level of depth in which these characteristics have been described. Regardless the starting point of CPS development and local situation, the results of this analysis allows elaborating area-specific policy recommendations for the concerned territorial actors (whether policy-makers, service-organising authorities or service providers), on ground of which they can start reflections on how to develop or improve CPS. Of course, the depth of analysis is different for each case, depending on the relevance and the availability of information for each characteristic.

The thematic focus and thus for the recommendations differ per case study. The thematic focus has been chosen in close cooperation between the regional stakeholders and the national expert. Description of the region's multidimensional border reality as well as the main cross-border strategies supported this decision-making.

The case study research was performed by national experts. This allows close contact to the regional stakeholders and eases data collection in the national languages. To guide the work of the national experts in addressing the main elements of the case studies as well as the description of the key functional characteristics, templates were developed for the case study reporting and thus for the case study development. The structure of the case study reports is as follows. After the introduction and methodological remarks, the key characteristics of the

region are described, followed by an in-depth description of two or three existing CPS in the region. This forms the frame to better understand the possibilities for future CPS development, which is described in the subsequent section. Lastly, case specific recommendations and lessons learnt are presented. The following sections describe the approaches and methods for each of these section more in-depth.

Box 4.1: Outline of the case study reports

Main structure of the case study reports

For each case study report a template was developed including guiding questions per section. Guiding questions should be answered in the respective sections to support cross-analysing of the case study reports. The level of detail to which the guiding questions were answered in the reports depends on the issues at stake. The case study reports have the following structure. The headings may differ per case study report to align them better to the key points discussed.

1. Introduction / summary
2. Methodology
3. The case study at a glance
 - 3.1 Multi-dimensional reality of the border
 - 3.2 Existing CPS in the region
4. CPS provided in the region
 - 4.1 In-depth description of first CPS following its functional characteristics
 - 4.2 In-depth description of second CPS following its functional characteristics
 - 4.3 In-depth description of third CPS following its functional characteristics (optional)
5. The future of CPS in the region
 - 5.1 In-depth description of first future CPS
 - 5.2 In-depth description of second future CPS
 - 5.3 In-depth description of third future CPS (optional)
6. Lessons learned, recommendations & transferability

4.1 Characteristics of the border region

A first step of the case study research included assessing the main characteristics of the region relevant for CPS development. This includes getting an overview of the present cross-border strategies and policy documents, including legal frameworks that support or hamper the development of CPS as well as getting an overview of the main opening and closing effects relevant for the need and potential for CPS in the region. Both elements are discussed in the chapters 3 of the case study reports: “The case study at a glance”.

4.1.1 Cross-border strategies and other policy documents

Experts reviewed relevant cross-border strategies and other policy documents in the case study areas to assess the possibilities and obstacles for CPS development. Regional stakeholders helped making the documents available to the experts.

Assessing the current strategies and policy documents supported the case study research in two ways. Firstly, it helped experts and regional stakeholders in identifying relevant themes to discuss further CPS development in the region against the region's main objectives. Secondly, it supported the experts in getting a broad understanding of the possibilities for CPS in the region, e.g. which types of governance models would be easiest implemented. For the latter the experts assessed not only the policy documents relevant for the own border region but needed to assess frequently how interstate agreements or general conventions have been used and applied. In some cases these documents needed to be adapted to allow existing CPS to be established.

4.1.2 Assessing the multi-dimensional reality of borders

Experts assessed the main border effects in the region following the key aspects of the multi-dimensional reality of the border – administrative/ political effects, physical geographic effects, economic effects, and socio-cultural effects (see section 2.2.3). The main opening and closure effect of the border seen from these four different points of view, supported the understanding of the needs and potentials for CPS in the region.

The description of the multi-dimensional reality of the border(s) in the case study region contributed to develop conclusions and recommendations. So-called “nexus models” were drawn up for each future CPS in the case study regions, making use of the opening and closure effects described in Chapter 3 of the case study reports. Some case study reports include these models in the text others in specific figures.

Box 4.2: Principle structure of a nexus model for CPS

CPS nexus model

The nexus models applied in the ESPON GEOSPECS project have been slightly adapted for the purposes of this CPS project. The nexus models highlight for each CPS and for each type of border effect the current problems and future challenges (on the left) and the current potential and future opportunities for CPS development (on the right). The diagrams contribute to creating a good understanding of how the multidimensional border reality and the associated border effects are influencing the conceptualisation, set up and ongoing operation of existing and new CPS

Current problems and future challenges	Border effects	Current potentials and future opportunities
	Political	
	Physical	
	Economic	
	Socio-cultural	

The nexus models was already used in the context of the ESPON 2013 project GEOSPECS to identify territorial development policy issues for the examined case study areas and also allowed to highlight possible fields of action that were taken up by the recommendations (ESPON, 2012). Under the present study the nexus models offers a number of advantages:

- Nexus diagrams enable to demonstrate the **multidimensional reality** of a given border for different time horizons (with all non-border related factors being equal), by depicting either present-time problems and potentials or future challenges and opportunities for CPS development or a mix of both. Depending on the main interest of stakeholders, diagrams can thus be used for supporting short term policy conclusions on concrete CPS development as well as medium to long term policy conclusion on a prospective planning of future CPS.
- Nexus diagrams depict a **variety of border effects** that influence on CPS provision (i.e. both at the level of needs for and obstacles to CPS development), but also the **complex interplay and cross-impacts** that exist between these effects. Nexus diagrams are thus not a linear representation of a border situation (e.g. similar to a logical framework), but rather a differentiated and web-like picture that tries to represent the complex processes in a specific stakeholder area or policy field.
- As nexus diagrams illustrate at one glance the **most influencing factors and processes** that are relevant for CPS development in a given cross-border region or policy field, they become also helpful tools for creating a common understanding that is needed to prepare subsequent policy-level discussions and decision-making.

When drawing conclusions and recommendations based on the nexus models, experts applied basic assumptions on inter-relations between the aspects in the model, for adequately considering cross-influences (e.g. alleviating or re-enforcing effects, other secondary effects) that may support or inhibit a CPS development. The assumptions and initial conclusions drawn by the experts have been collected, tested or verified during workshops with stakeholders in the region.

4.2 Experience with CPS in the border regions

A second step in the case study research included collecting a comprehensive overview of the current CPS in the region. This is expressed in two ways in the case study reports. Firstly, as a comprehensive overview of the CPS in tabular and map format. Secondly, by describing two to three CPS in detail, following their key functional characteristics. The overview of existing CPS development and implementation support drawing lessons relevant for discussing the possibilities for further CPS development in the region.

The comprehensive overviews of CPS in the case study areas are compiled with support of the regional stakeholders, and based on results from the survey and document analysis.

The in-depth descriptions of CPS are based on document analysis and interviews with service providers and other stakeholders relevant for the development of the CPS. Document analysis allowed to get a basic understand of the functional characteristics of the CPS. Interviews were necessary to gather more in-depth information on

- the legal frameworks of the CPS and how well they fit or which agreements needed to be made to overcome some legal and administrative obstacles;
- the production base, to understand how the use of infrastructure differs from domestic service delivery and how stakeholders dealt with the spatial separation between the physical infrastructure and service area, if applicable;
- the motivation and initial needs addressed by the CPS;
- the rationale for the organisational set-up the challenges and the solutions found.

4.3 Workshop

To get a better understanding of the possibilities for future CPS development in the case study regions, workshops were organised. Depending on the preference voiced by the ESPON CPS stakeholders and actual stage of CPS discussions in the regions, either one to three detailed ideas for potential future CPS or general ideas or potentials for future CPS were discussed in each case study area. Multiple workshops were organised in case diverse themes for further CPS development were selected.

The one or two-day workshops were organised in cooperation between the study team's experts and the stakeholders from case study regions. In general, the study team's experts were responsible for the content of the workshop and the regional stakeholders were responsible for practical organisation and arrangements.

In order to guide the case study development and ensure that the outcomes of the workshops are to some degree similar for all regions the work was coordinated. General workshop guidelines have been drafted and shared in the expert team. The guidelines have been discussed to get a general common understanding. Subsequently the experts have developed and performed the workshops in the regions.

In total, fourteen workshops were organised in the ten case study areas. The fourteen workshops covered a large variety of themes among which transport, health care, labour market, education, nature park development and civil protection.

After the workshops, every expert could complete the case study reports. They collected sufficient evidence and insights to complete the drafting of the case study reports. Based on the discussions of the workshops experts could describe per potential future CPS the

- possible development and set-up of the CPS, e.g. which needs or potentials are addressed;
- legal, administrative and governance frameworks needed for the CPS, e.g. possible use or adaptation of existing frameworks;
- next steps to take for the development of the CPS.

In addition the workshops led to different outcomes for the regional stakeholders. The type of results depend on the implementation stage of CPS, the local situation and the objectives of the workshop. Some of the additional results are presented below:

- Inventory of possible areas in which CPS could be an added value of cross-border cooperation;
- The initiation of continued cooperation, including the identification of relevant stakeholders;
- First initiatives to new CPS developments, including concrete agreement for further research or meetings.

4.4 Cross-analysing case studies

The cases studies deliver generally two types of recommendations. Each case study report produces recommendation relevant for the respective region. Secondly, the case studies allowed drawing conclusions and developing recommendations targeting European cross-border areas in general, for example different options already chosen or describing possibly new solutions not yet found for certain policy fields or CPS. This required a generalisation as compared to the recommendations for the case study areas. Therefore the case studies have been cross-analysed.

Cross-analysing the case required considering the region or CPS specificities. In doing so the following steps were applied.

- Internal discussion of main findings and lessons learned from the workshops within the study team.
- Comparing case study reports reflecting general development steps towards establishing CPS with their key functional characteristics described in the conceptual framework.
- Comparing the main general findings for CPS development with the conclusions drawn from the good practice examples.

The general conclusions and recommendations across the case studies feed not only in the main final report but were also used for drafting the Practical Guide.

5 Developing good practice examples

Good practice examples of CPS aim to illustrate successful approaches that can inspire other stakeholders and give food for thought on alternative ways for addressing shared needs and problems. Good practices can be a valuable contribution for awareness raising and knowledge transfer.

The good practice examples show the large variety of different obstacles and solutions for CPS provision rather than ideal cases or a complete overview of all existing alternatives. Every CPS has different aspects that can be considered as good practice, as bad practice or as lesson learned.

The good practice examples have been incorporated into this report, the main report and the practical guide alongside the examples from the case study research. These brief extracts derive from the factsheets produced for each good practice example. The good practice factsheets are provided in a separate file as Annex II to this report.

5.1 Approach to good practice selection

Good practice examples have been selected from the overall CPS database, considering the inputs received from service providers through the online survey. The selection procedure of good practice examples included different steps.

First, a **long list of potential good practices** was established and discussed internally. The long list included all the CPS for which the information collected was more or less complete, in order to make better judgements on their relevancy in the next steps.

Second, a **short list** was established. The aim of the short list was to cover as many different fields of intervention as possible and illustrating different approaches that may inspire different geographical, legal and administrative contexts. To allow a good mix of examples the principle of maximum structural variation has been applied taking the following criteria into account:

- include all different policy areas and a reasonable number of fields of interventions (see section 2.1);
- cover different geographies regarding the type of border and balance the examples between all EU MS and take into consideration examples from the case study regions;
- consider different legal and governance frameworks as well as delivery models, e.g. – new CPS, cross-border extension of a domestic service, or increased coordination between domestic services;
- show different delivery modes for services of one policy field, including alternative solutions for financing;
- provide complementary information to the CPS practice descriptions on the Futurium webpage on EU border region by the European Commission.

Thirdly, the short list, including a few draft factsheets, has been **discusses with the regional stakeholders** and within the steering group. The discussion allowed to refine the selection of good practice example in line with the needs for examples by the study's stakeholders.

The final selection of good practice example consists of **29 currently functioning CPS** all across Europe (Table 5.1). The number of CPS per policy area is, however, not equally distributed for various reasons. Firstly, some policy fields are defined more broadly than others. For example, the policy area "Environmental protection, natural resources management and climate change action" covers more fields of interventions than the policy field "Citizenship, justice and public security". Secondly, the number of CPS is not equally distributed between policy fields. No good practice for the field "Communication, broadcasting and information society" was selected, as the number of CPS in this area is rather low. This might be linked to the fact that European integration on communication and new technologies is promoted at national and EU level. In addition, integration of IT networks and services in cross-border areas is rarely developed as a singular activity but rather integrated in other policy fields (e.g. in healthcare, emergency response, disaster management, spatial planning). overlaps

Table 5.1: *Rationale and key selection criteria for final list of good practice example*

	CPS name	Border	Key selection criteria
	Transport		
1	Tram Strasbourg-Kehl	DE-FR	Illustration of multiple legal obstacles to overcome before service delivery. Illustration of technical, pricing and political challenges overcome.
2	Twin city bus line 983 Frankfurt (Oder) – Słubice DE-PL	DE-PL	Cross-border extension of existing public services to connect neighbouring communities on both side of the border. The establishment took around 13 years. The economic and technical requirements were solved rather quickly. Legal challenges were more difficult to overcome. In the end Słubice was included in the tariff zone of the Verkehrsverbund Berlin-Brandenburg.
3	Elbe-Labe Ticket	CH-DE	Coordination of public services by offering cross-border tickets. Therefore a specific cooperation agreement has been concluded between the competent public service-organising authorities.
4	Joint transport authority for the Geneva cross-border metropolitan area	CH-FR	This is an example for the highest integration degree feasible for organising cross-border transport as it offers joint transport lines and manages public transport jointly in all aspects.
	Spatial planning, economic development, tourism, leisure and culture		
5	Joint tourism office Haparanda-Tornio	FI-SE	Merger of two tourism offices on both sides of the border to a joint office in 1998.
6	Geographic Information System (SIG-GR)	BE-DE-FR-LU	New CPS with the aim to coordinate and harmonise geographic information and develop a common language and approach for shared issues. Since May 2013, the GIS-GR is operating with a full-time employee for coordination in form of a permanent establishment based in the Luxembourg Ministry of the Interior, Sustainable Development and Infrastructure.
7	InterTrade Ireland	IE-UK	Service supporting economic development. InterTradeIreland is a cross-border trade and business development body newly established for the provision of the CPS and funded by the Department of Jobs Enterprise and Innovation in Ireland (DJEI) and the Department for the Economy of Northern Ireland.

	CPS name	Border	Key selection criteria
	Healthcare, long-term care and social inclusion		
8	ZOAST	BE-FR	Integrated cross-border health care approach along the full Belgium-French border split into different sub-regions with their own specificities.
9	Hospital Cerdanya	ES-FR	Increasing the extent of service delivery in a region that is geographically challenged. Incremental adapting the governance and legal framework to new situations. Adoption of EGTC framework in support of service delivery.
10	Healthacross, Clinic Gmünd	AT-CZ	Increasing the extent of service provision along a new internal EU border. Illustration of a border-crossing extension of an existing domestic public service, unilateral delivery and joint management.
	Education and training		
11	European Exchange School Alliance	HU-RO-SK-UA	Example of specialized and non-formal educational services, supporting experience exchange in youth policy and the educational sector in border regions. Exchanges focus on selected themes such as ecological issues or strategic planning of which the partners are particular experts.
12	Bilingual elementary school in Prosenjakovci	HU-SI	Example of a CPS for primary education by extending the existing services across the border. Relatively small service that educates approximately 20 Hungarian pupils from villages across the border.
13	Schengen Lyceum	DE-LU	Example of a CPS for secondary education. Example of different agreements to be concluded for the establishment of the service and the recognition of diplomas in multiple countries. New CPS, delegated joint delivery and delegated joint management.
14	University cooperation South Karelia	FI-RU	Example of a CPS for tertiary education. Cooperation and recognition of diplomas at a EU external border.
15	Eucor – the European campus	CH-DE-FR	New CPS to promote cross-border cooperation among five university in close proximity with a focus on research and mobility of researchers. The network already exists since 1998 and is since managed as an EGTC since 2016.
	Labour market and employment		
16	Grensinfopoint Scheldemon	BE-NL	Illustration of one example of a joint strategy of many similar CPS along the Dutch-Belgium and Dutch-German borders. Illustration of general and local challenges overcome and benefits of CPS.
17	Eures Transfronterizo Extremadura-Alentejo	ES-PT	Service provision in a labour market with a relatively low number of cross-border commuters. Aiming more at promoting cross-border working in a large geographical area along the border. The CPS has been established recently in 2017.
18	Job over grænsen	DE-DK	Job over grænsen offers comprehensive services to job seekers for cross-border job placement. The service addresses a gap in the official Danish and German job agencies, which only provide services for domestic job placements. Due to the competition of jobs by the greater Hamburg and Copenhagen areas, it is extremely important for the Region Sønderjylland-Schleswig to keep all the workers in the region and to make the jobs, but also the job placement, attractive. A holistic, individual and tailor-made support is therefore essential for the job placement.
19	Border mobility	NO-SE	Service provided between EU and non EU Member State, based on existing general action plan agreed by a cross-border structure. The CPS facilitates the movement of labour force between the countries. Today the CPS also tackles how to improve information to business in order to increase business relations.

	CPS name	Border	Key selection criteria
	Environmental protection, natural resources management and climate change action		
20	Xures-Gerês National Park	ES-PT	This national park on the northern Portuguese-Spanish border has been declared an UNESCO transboundary biosphere reserve in 2009. The "Executive Commission" acts as joint administrative structure and is supported by the Advisory Council of the Transboundary Biosphere Reserve. In 2015, due to changes of legislation in Portugal, reflections began on establishing a new Strategic Council of the Peneda-Gerês National Park.
21	Mura-Drava Danube	HR-HU	Transboundary biosphere reserve stretching along the Drava, Mura and Danube rivers between Croatia and Hungary. This Unesco Biosphere is one example of many in Europe. In addition, this nature park is part of the Danube parks network as describe in the ESPON LinkPAs project.
22	Drinking water provision Wissembourg	DE-FR	Example of cross-border drinking water provision along the German-French border. Drinking water is provided by a local body for territorial cooperation (GLCT created under German law in 2001). The CPS aims at unilateral delivery and joint management of the infrastructure, for example technical control mechanisms. The technical systems of the combined supply are equipped with tele-control systems both on the German and on the French side, and the operating personnel are in contact with each other.
23	Sewage water treatment plant in Euregio Salzburg-Berchtesgadener Land-Traunstein	AT-DE	The Greater Salzburg wastewater treatment association operates one of the largest biological wastewater treatment plants with a capacity of 680,000 population equivalents (plant "Siggerwiesen" in Anthering) that also treats wastewater collected from various Bavarian municipalities including e.g. Ainring (DE), some of Freilassing's estates at Bruch and Laufen (DE).
24	TRION Climate	DE-FR	TRION Climate is a tri-national network for the promotion of renewable energy in the upper Rhine area. Based on the common cross-border climate protection strategy, the TRION networks' task is the implementation and promotion of renewable energy and to coordinate different efforts across the border.
	Civil protection and disaster management		
25	EMRIC	BE-DE-NL	EMRIC (Euregion Meuse-Rhine Incident control and Crisis management) is a cooperation of public services that are responsible for public safety such as fire services, technical assistance and medical care in the German-Belgium-Dutch border area. The cooperation is jointly managed by a single office for coordinating and initiating different projects in the field of public safety.
26	Rescue helicopter "Euro-Christoph 3"	AT-DE	In July 2002, the ÖAMTC and ADAC Air Rescue launched the first truly European air rescue station Christopherus 3. Half of the pilots deployed come from the ADAC Air Rescue and half from the ÖAMTC. The management of the station is also binational. Likewise, the emergency assistants and emergency physicians working on Christopherus 3 are provided by both participating countries.
	Citizenship, justice and public security		
27	German-French Centre for European Consumer Protection in Kehl	DE-FR	The centre unites the European Consumer Advice Centre Germany and the European Consumer Advice Centre France. It is a non-profit association that works in favour of German-French consumer interests since 1993. Since 2005 both MS have transferred their responsibility for European Consumer Advice Centres to this association. It represents the sole binational structure within the network of European Consumer Advice Centres.
28	Permanent on-line platform	IE-UK	The cross-border mobility website is a one-stop guide and an important source of cross-border citizens'

CPS name	Border	Key selection criteria
		information and advice on the island of Ireland. The Border People project was initially funded in 2007 by the EU PEACE Programme and then developed with EU INTERREG funding. It is currently funded by the Department of Foreign Affairs and Trade's Reconciliation Fund.
29	German-Dutch Police Cooperation	DE-NL
		The cooperation is based on the Treaty between the Germany and the Netherlands on cross-border police cooperation and cooperation in criminal matters that entered into force on 1 September 2006. It has a Joint Border Coordination Centre in the Netherlands and an office located in Germany.

Source: Service provider CPS database, 2018

5.2 Factsheets

The good practice examples are presented in the form of standardised factsheets. Factsheet descriptions have been proven to be a valuable tool to provide information to the point to practitioners. The factsheets are a means of communication that are easy to read and guide the reader through the information available and in a comparative way (see Box 5.1). The factsheets are maximum two pages to allow print-outs on a single A4 to be disseminated at events.

Box 5.1: *Structure of good practice factsheets*

Factsheet structure

Each factsheet follows the same structure for presenting the key characteristics of the CPS. This supports quickly comparing the different ways of developing and implementing CPS. The level of detail of the each element differs per factsheet depending on the key distinctive elements put forward. The factsheet provide therefore merely a brief overview of the main elements of the service rather than a complete description. The structure is as follows.

- Basic information (border, year of implementation, function and brief description including the main distinctive element)
- Cross-border public service provision (needs addressed, legal and administrative framework, financing and main target groups)
- Challenges and obstacles (challenges and obstacle encountered and solution found)
- Results (main achievement of the services and elements for transferability)

The factsheets serve as tool for transferring ideas on CPS development across Europe. In doing so, any good practice still needs adaptation to local, regional and national conditions and contexts. The actual approaches and solutions presented for the CPS provision depend for a large part on border-specific factors (esp. legal / institutional context). Thus, good practice examples can only illustrate general approaches that may be useful, they cannot be transferred by copying but need possibly considerable adaptation and change.

6 Proposals for future research

This ESPON study resulted in the first inventory of examples of CPS throughout Europe, including information and insights in the reasons and steps to establish CPS. This inventory and understanding of CPS can be further developed in future research. Future research may be conducted, following the proposals presented below:

- **Expanding the database of CPS throughout Europe.** Most likely more examples of CPS exist in Europe. Further research along all European internal and external borders is required for an even completer picture as currently developed. The collection of all these examples requires research in all official languages of the EU. This would increase the total population that could respond to requests to provide information on CPS they are familiar with. Furthermore, current and future databases of CPS would need regular updates. Each database or inventory of CPS is a reflection of a particular point in time. The current study illustrated the development of CPS throughout Europe. New CPS are being established and existing CPS may cease for different reasons.
ESPON as well as other pan-European organisations such as the European Commission or AEBR may initiate the development of a more complete and dynamic database of CPS examples and an on-going monitoring of CPS in Europe.
- **Exploring CPS development and implementation in exclaves and enclaves.** Enclaves are places completely surrounded by foreign territory. Exclaves are territories not attached to their main domestic territory. In most cases, exclaves are also enclaves. There are numerous ex- and enclaves in Europe with a cross-border context, i.e. exclaves and enclaves involving different nation states. Each has its own history and specific arrangements for service provision. Most of these arrangements are covered in national laws, that sometimes date back to the founding of the nation states. More detailed analysis of these arrangements could provide lessons for general CPS provision. For example this should include the specifications that allow CPS provision, the practical implementation of service provision in these territories and the challenges that are overcome. Examples of exclaves of further interest include Jungholtz, Austria, which is only accessible via Germany due to mountainous terrain, Baarle-Hertog and Baarle-Nassau in Belgium and the Netherlands, the Vennbahn area between Belgium and Germany, Campione d'Italia in Switzerland and the Spanish territories of Llívia in France, to name only a few.
- **In-depth research on the rationales for CPS development.** This ESPON study illustrated a variety of rationales for CPS development in the case study areas. Further in-depth research in a broader variety of regions would allow drawing more general conclusion on CPS development for the benefit of sharing and transferring good practices. Finding on different rationales may subsequently be linked to local and regional territorial developments and trends. This would demand more case study work and interviews.

- **Inventory of existing bilateral agreements** as well as their motivations, facilitating CPS development. A first list of bilateral agreement facilitating CPS development is presented in this ESPON study. During the study, this list has been regularly updated and amended. Researchers discovered more bilateral agreements that supported general or sector-specific agreements in the case study areas. Outside the case study areas probably more bilateral agreements exist. A better overview of such bilateral agreements may lead to a better understanding of the possibilities of CPS development across all European borders.
- **Analysing the relationship between voluntary, informal or little formalised cooperation and a formalised CPS.** Many CPS started as informal voluntary action and were at some point in time 'converted' into a CPS (fulfilling the criteria laid down for this project). However, this does not mean that in all cases CPS are the "better" solution to provide a service. Quite the opposite, many stakeholders may be afraid that implementing a CPS entails a huge administrative 'overhead'. When a certain degree of formality is achieved, this usually also enforces compliance with quality standards and with national or European legislation, for example, with regard to the training of those persons who offer the service in concrete terms (for example, are all required certificates available?) or with regard to basic technological standards (do the fire engines also have certain communication techniques on board?). All these things can be handled a little less rigorously, if the service is an informal voluntary cooperation, knowing that sometimes existing (national) rules and legislations are not always met completely. The research question is to precisely identify and describe the point where stakeholders realise that "now we need a formal CPS", instead of "voluntary cooperation". Does this decision differ between different Member States or European regions? This analysis cannot be applied in a European-wide study, but requires in-depth analysis for a number of selected cases.
- **Assessment of the possibilities to encourage Interreg projects to develop CPS.** Some CPS originated from Interreg projects. An in-depth analysis could reveal requirements, success factors and potentials for converting time-limited projects in permanent long-lasting services. As a result, recommendations could be given for the further development of the terms of reference of Interreg-projects. Interreg funding plays an important role in the development of many CPS, for example, to initiate cooperation or to perform different studies for the benefit of CPS development. CPS can emerge from Interreg projects if funding for the long-term is secured. Different initiatives exist in Interreg programmes to encourage stakeholders to continue their cooperation beyond the funding period. However, there might be obstacles to realise the move from an Interreg project to a CPS. An inventory and assessment of these initiative would help stakeholders further develop their cooperation after Interreg and to establish a CPS. Interreg programmes such as ESPON or INTERACT may initiate such an assessment.

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Further Sources

The following lists additional references that have been used in the study (apart from case studies) but are not cited in the Scientific report. These information sources are grouped in 11 sections: section 1 includes general literature sources and section 2 is about documentary sources on general cross-border cooperation (covering various policy fields at one specific border or various EU borders), sections 3 – 10 include documentary sources for specific cross-border policy areas that are related to public service provision and section 11 lists a number of general on-line data bases, inventories or overviews that are useful for this study.

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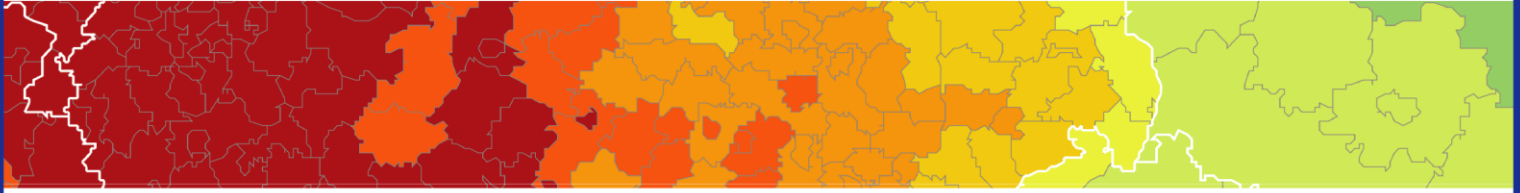
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ESPON 2020 – More information

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The ESPON EGTC is the Single Beneficiary of the ESPON 2020 Cooperation Programme. The Single Operation within the programme is implemented by the ESPON EGTC and co-financed by the European Regional Development Fund, the EU Member States and the Partner States, Iceland, Liechtenstein, Norway and Switzerland.