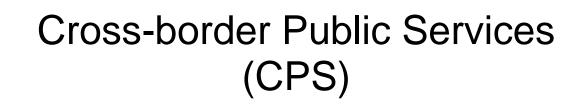


Inspire policy making by territorial evidence



Targeted Analysis

Final Report

Scientific Report – Annex VI Case study report – Bothnian Arc



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.

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Cover photo

Workshop in Luleå by Jukka Teräs

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Cross-border Public Services (CPS)

Final Report

Scientific Report – Annex VI Case study report – Bothnian Arc

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Abbreviations

| CPS | Cross-border public services |
|------|--|
| CPSP | Cross-border public services provision |
| CBC | Cross-border cooperation |
| EU | European Union |
| OECD | The Organisation for Economic Co-operation and Development |

1 Summary

Bothnian Arc is the cross border region between Sweden and Finland with a soft border regime. It is a coastal zone along the Gulf of Bothnia, at the northernmost end of the Baltic Sea. The Bothnian Arc area is among the oldest and most successful examples of CBC in Europe. The cooperation is facilitated by many centuries of common history and peaceful relations, similar levels of economic development and a long tradition of the Nordic collaboration in the economic, social and cultural field. Moreover, the CBC in the Bothnian Arc area is facilitated by the two cross-border cooperation bodies, the Bothnian Arc association and Provincia Bothniensis. Limited internal accessibility due to long physical distances between the major regional centres and towns and the language barrier can be considered important aspects that hamper cross-border integration.

Due to physical proximity, the highest number of CPS in the Bothnian Arc area were found along the border, in the twin cities HaparandaTornio. The twin cities count over 10 CPS and collaboration agreements that increased rapidly since the 1970s'. The particular focus of the CPS is on education, healthcare and spatial planning. The joint language school and a joint sewage treatment plant were highlighted as particularly good examples of CPS in the Bothnian Arc area.

With increasing distance from the border the CPS provision becomes more challenging. In the wider Bothnian Arc area, the main focus is on CPS in the field of civil protection and disaster management and higher education. Developing CPS in the wider Bothnian Arc area is considered important from the perspective of increasing competitiveness and attractiveness of the region, achieving greater critical mass and better pooling the assets.

Considering the demographic and labour market challenges, regional and local stakeholders are interested in developing CPS in the field of education and labour mobility. CPS in the field of education would contribute to building the culture of cooperation and lowering the language barrier. Developing a joint programme in education in minority languages and education in youth entrepreneurship for school students were among the suggested ideas for new CPS. CPS in labour mobility could entail smoother recruiting instruments to balance the level of unemployment across the borders.

Five key points and lessons learned can be identified: Political support and dialogue are essential for addressing the obstacles of legal and administrative nature. Joint planning and developing concrete actions and steps are needed to ensure the successful implementation of the CPS. Strong leadership, good coordination and committed partners are among the success factors for developing new CPS. Bridging the physical distance between the public authorities and service providers is needed. In this connection, finding alternative ways of communication and maintaining contact on a regular basis could be important. Finally, the future provision of CPS may require innovative approaches that go beyond the traditional understanding of the public service with a potential involvement of the private and third sector actors.

2 Methodology

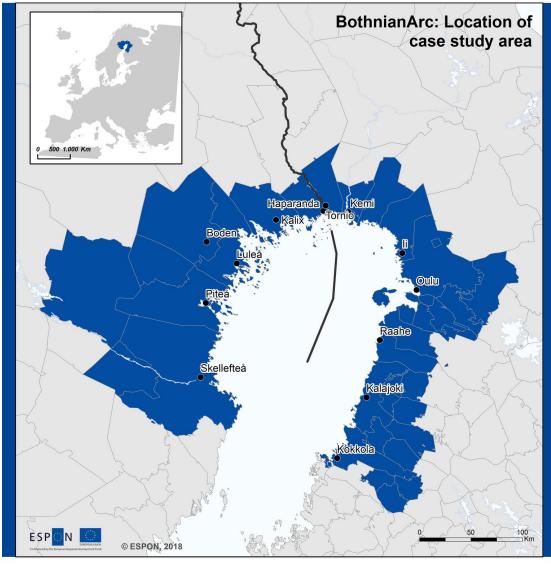
This report has been drafted based on desk research, communication and interviews with regional stakeholders and service providers. This included phone interviews with stakeholders from the cross-border cooperation (CBC) bodies (the Bothnian Arc association and Provincia Bothniensis) and CPS providers conducted in spring-summer 2018.

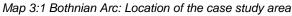
Desk research included local CBC agreements, websites of the CBC bodies and other relevant documents, such as the OECD Reviews of Regional Innovation (the case of the Bothnian Arc) (2013). Desk research and interviews have been complemented with findings and conclusions from the stakeholder workshops hold in Luleå and Oulu on 11 and 12 June 2018 respectively.

The selection of two CPS for the in-depth analysis and themes for the workshops was done in cooperation with the stakeholders of the Bothnian Arc association and Provincia Bothniensis. The workshops brought together regional stakeholders, administrative representatives and service providers with the aim to discuss challenges, needs and possibilities for further CPS development within the selected priority areas in the Bothnian Arc area.

3 The case study region at a glance

Bothnian Arc is the cross border region between Sweden and Finland. It is a coastal zone along the Gulf of Bothnia, at the northernmost end of the Baltic Sea. There are about 710 000 people (2011) living in this 55 000 km2 area, of which about 65 percent lives on the Finnish side of the border. In a European context, it is a rather sparsely populated area, with only three cities that have a population over 50 000 inhabitants (Oulu, Luleå, Skellefteå). The geographical coverage of the case study area is illustrated on Map 3.1:





BothnianArc case study area
National border

- LAU-2 units
- Sea, lakes

Local level: LAU2 Source: ESPON CPS Origin of data: TCP International, 2018; RRG GIS Database, 2018

3.1 Characteristics of the border region

Territorial factors and economic dimension of the border region

The Bothnian Arc region is composed of seven municipalities on the Swedish side (Haparanda, Kalix, Luleå, Boden, Älvsbyn, Piteå and Skellefteå), four Finnish sub-regions (Kemi-Tornio, Oulu Arc, Oulu, Ylivieska), and the city of Raahe and regional council of Central Ostrobothnia. The territory of the Bothnian Arc was defined by the local authorities and does not follow the regional administrative boundaries.

Limited internal accessibility due to long physical distances and remoteness from the political capitals are among the challenges in the Bothnian Arc region. There is a low connectivity of more rural areas with regional centres of Oulu and Luleå, while the travel distance by road between Oulu and Luleå is more than 3 hours. There is no public transport service connecting these two cities.

Both sides of the border are characterised by a similar level of economic development, high standards of living, and close political ties as part of the Nordic Cooperation. The border area has similar economic specializations on both sides, being particularly strong in the ICT sector, energy technologies, processing industries based on natural resources (forest, minerals) with a strong innovation potential (OECD, 2013). Other growth areas include healthcare and welfare sectors (The Bothnian Arc, 2017).

Functional factors of the border region

The border between Finland and Sweden is a soft border with no imposed border control. The linguistic, social and 'ethnic' differences are probably more relevant to the inhabitants, than the existing state border. The inhabitants of the twin cities Haparanda-Torneå cross the border on a daily basis, mainly for shopping, work, recreational purposes or visiting friends and relatives (The Mot, 2018). Temporary border control was introduced on the Finnish side in 2015 due to large refugee flows arriving from the south of Sweden. The border control was abolished once the situation stabilised.

Cultural and language factors affecting cross-border interaction

The border area is characterized by rather low cultural barriers that presents a fertile environment for developing a cross-border collaboration. The northern parts of Sweden and Finland is home to the indigenous populations known as Sámi that strengthens the ties in the Bothnian Arc area.

At the same time, the language barrier is among the hindering factors for developing CBC in the Bothnian Arc region. Although Swedish is an official language in Finland, not everyone has a good command of Swedish. The language barrier increases with the distance from the border.

Political and institutional framework for collaboration in the border region

The cooperation in the Bothnian Arc region is anchored in a long tradition of Nordic collaboration, dating back to the Treaty of Helsinki in 1962 that laid a foundation for cooperation among the Nordic countries. Moreover, there is a strong support framework for CBC in the border area due to the established CBC bodies (the Bothnian Arc association and Provincia Bothniensis). There is no joint strategy or aligned policy document guiding the development of the cross-border area. The municipalities that are members of the Bothnian Arc association address CBC as part of their own local strategic plans and have been reluctant to develop a common CBC policy.

The cooperation between the border towns Haparanda and Torneå is realised on basis of a specific *Agreement on Cross-Border Cooperation between Haparanda and Torneå*, which was first signed in 2000 and renewed in 2015. The agreement sets out the general principles for activities, cooperation, governance and decision making. It is stated in the agreement that the main purpose for cooperation between Torneå and Haparanda towns is to improve efficiency of utilization of the municipal resources and to improve public services that can be offered jointly. The overall objective is to develop the cities into a financially and functionally attractive international twin city HaparandaTornio, role model for CBC worldwide (HaparandaTornio, 2015). In addition to the main agreement, there are several individual agreements between Torneå and Haparanda in the field of joint public services provision, investments, development projects and other possible cases that are addressed in separate documents (HaparandaTornio, 2015).

Other municipalities in the Bothnian Arc region, namely Oulu, Luleå and Ylivieska, focus on fostering CBC mainly among the business representatives, with no particular references to the CPSP. At the regional level, the *Regional Development Strategy for Sustainable Future in Norrbotten 2020* has strategic CBC as one of five priority areas. CBC is seen important for improving the competitiveness of the business community, strengthening Norrbotten's research, education and innovation environments as well as smart specialization (Norrbotten County Government, 2012).

The Bothnian Arc association is the main governance body in the border area that works with facilitating regional cooperation and strategic development. The Bothnian Arc association was established in 2002 and it is one of the 12 cross-border committees funded by the Nordic Council of Ministers. It also receives funding from the municipal public authorities and other sources, such as the Interreg programmes. The Bothnian Arc association doesn't have a regulatory power but is involved in coordinating policies in the border area and defining common initiatives. It has mainly municipal authorities as members of the board (OECD, 2013; The Bothnian Arc, 2017).

The vision for the Bothnian Arc association is to "develop the most functional and integrated border region of the Northern Europe with strong economic growth, advanced social welfare and sustainable and clean environment" (The Bothnian Arc, 2017). More specifically, the association focuses on enhancing business and public sector cooperation across the border in order to increase the attractiveness of the area, overcome barriers related to peripherality and achieve greater economy of scale. It is involved in lobbying and marketing activities and supports local innovative projects. The CPSP is therefore not strong on the agenda of the Bothnian Arc association.

The CBC and CPSP between Torneå and Haparanda is realized through a joint body, Provincia Bothniensis, established in 1987. Its aim is to coordinate cooperation at the political level and assist the municipalities in developing joint projects. The association also represents Haparanda and Torneå at the international level, e.g. in applying for EU funding or promoting the area to attract businesses (The Mot, 2018).

Provincia Bothniensis has a Board composed of several elected authorities from each municipality. The association does not have a legal status and therefore is not a decision-making body (The Mot, 2018). The cooperation focuses on physical planning, public services and joint infrastructure.

3.2 Existing CPS in the region

The strongest cooperation in CPSP in the Bothnian Arc region has been developed around the initiatives of two twin cities, Haparanda (Sweden) and Torneå (Finland), which are located on the opposite sides of the border river Torne.

The collaboration between the two municipalities started in the 1960s, in particular in the fields of sports, education and culture, and later on expanded to other areas. The two towns share railway, airport, sports and recreation infrastructure, and jointly utilize expensive equipment, specialists and ambulance services (Lundén Thomas, 2007). In 2006, it was decided to develop a new cross-border district and the two cities adopted a joint name – Tornio-Haparanda – and a shared logo, so that they almost function as one city (The Mot, 2018).

CPSP between Haparanda and Torneå is considered one the most successful examples of CPSP in Europe (The Mot, 2018). Engaging other municipalities in developing CPS in the Bothnian Arc region is a challenge due to large physical distances between the towns and villages on both sides of the border, as well as the presence of the water body, the Gulf of Bothnia, that acts as a physical barrier.

A total of 18 existing CPS were identified in the Bothnian Arc case study area, with the majority of CPS located around the twin cities Haparanda Torneå, as illustrated on Map 3:2. The range of topics covered is rather balanced. A particular focus can be identified for CPS in the field of education and training, spatial planning, healthcare and social inclusion, as well as civil protection and disaster management (Figure 3:1; Map 3:3). Table 3:1 lists CPS by policy areas and provides a short description of the CPS.

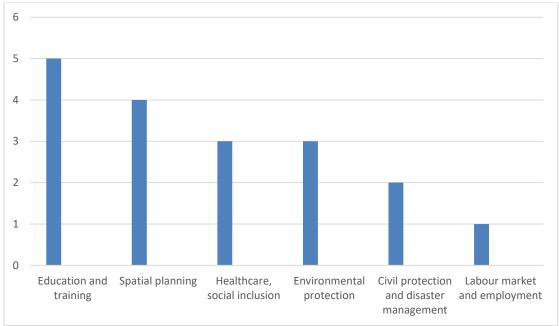
| # | CPS no in Map | Name | Theme | Year | Target group | Description |
|---|---------------------|---|------------------------------------|---------------|--------------------------------|---|
| 1 | 2305 | Arena Polarica - Joint Ice stadium | Spatial planning | 2000 | General public | An outdoor bandy arena in Haparanda, Sweden, Although situated in Sweden, it was built by the Finnish city of Torneå. The arena is home to the HaparandaTornio- bandy, consisting (since 2004) of both Finnish (Tornion Palloveikot) and Swedish (Haparanda SKT) players. |
| 2 | 2307 | Joint swimming pool in Haparanda | Spatial planning | 1960 | General public | An agreement on a joint use of the swimming pool in Haparanda |
| 3 | 2308 | Barents Winter games, reoccurring event | Spatial planning | 1993 | General public | |
| 4 | 2405 | Joint tourist office | Spatial planning | 1998 | General public, tourists | A joint tourist office for Haparanda and Torneå was established by merging the two towns' tourist offices. |
| 5 | 3120 | Hospital cooperation agreement between hospital districts | Healthcare, social inclusion | N.a. | Patients | An agreement on cooperation between Lapland (FI), Finnmark (NO) Helse Nord HF and Norbottents Läns landsting (SE). |
| 6 | 3408 | Cross-border ambulance services | Healthcare | 1993 | Patients | An agreement signed by Torneå and Haparanda on cooperation between the ambulance services. This agreement has expired but the ambulance services still cooperate. |
| 7 | 4114 | Nursery agreement | Healthcare, social inclusion | 2002 | Children | Parents from both towns/countries may put their children into a nursery in the neighbouring town/country for the same cost as in home country |
| 8 | 4112 | Cross-border open school attendance at comprehensive school level | Education and training | 1978, 1989 | Pupils | An agreement on cross-border open school attendance for primary and secondary education (1978) and the upper secondary education (1989). Cross-border school attendance (primary and secondary) and the polytechnic in the HaparandaTornio area are free of charge |

Table 3:1 List of CPS in the Bothnian Arc area

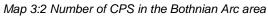
| 9 | 4113 | HaparandaTornio's joint elementary school | Education and training | 1989 | Pupils | A joint language school located in Haparanda, Sweden, but is open for the Finnish children to enrol |
|----|------|--|------------------------------------|------|--|---|
| 10 | 4305 | The Nordic Mining School (NMS) | Education and training | 2013 | Students; researchers | The aims of the NMS are (i) to bring the students at master level in both universities together to reach critical mass; (ii) to build the best graduate school in mining-related education in Europe; and (iii) to strengthen the research co-operation in mining, exploration and environmental engineering, mineral processing, metallurgy and process engineering. The University of Oulu and the Luleå University of Technology have jointly established the Nordic Mining School (NMS). The NMS offers a new degree programme in fields related to the mining industry. |
| 11 | 4313 | UArctic - "Arctic Five" partnership between Nordic North Universities | Education and training | 2016 | Public authorities; students; researchers | "Arctic Five" partnership is a cooperation agreement between five Nordic North Universities, including the Luleå University of Technology (Sweden) and the University of Oulu (Finland). The key thematic areas of the Arctic Five research are mining, energy, health and wellbeing, education, Sámi indigenous issues and regional development. |
| 12 | 4314 | Agreement on a joint doctoral education between Luleå and Oulu universities | Education and training | 2016 | Public Authorities; Pupils and students and apprentices of all ages | |
| 13 | 5125 | Nordkalotten Border Service (Nordkalottens Gränstjänst/Pohjoiskalotin Rajaneuvonta) | Labour market and employment | n.a. | Cross-border workers and job seekers; economic actors of various sectors | Provides information and advice to individuals, businesses and organisations on cross-border issues, such as labour market and employment, social insurance, etc. The organisation facilitates contacts with public authorities or administrative bodies who have the competence to deal with the questions received. The organisation also registers and analyses border obstacles. If no local solutions can be found, the border obstacles are passed further to a Nordic border obstacle council |

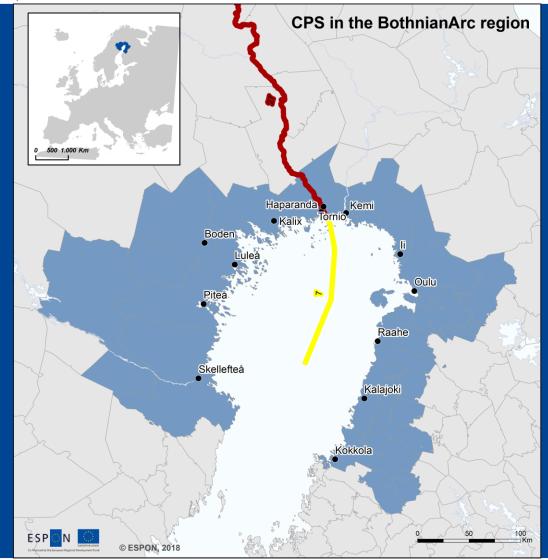
| | | | | | | (Gränshinderrådet). |
|----|------|--|--|------|--|---|
| 14 | 7439 | Joint sewage treatment plant | Environmental protection | 1971 | General public, public authorities | Joint sewage treatment plant is a CPS that involves sharing hard infrastructure between Haparanda municipality in Sweden and Torneå town in Finland. The service is provided to the residents and businesses in the cross-border area since 1971, expanded and modernised in 1996. |
| 15 | 7440 | Agreement on a joint sludge treatment (1990) | Environmental protection | 1990 | General public, public authorities | The agreement on treatment of sludge from the sewage treatment plant made the plant take a giant leap into a 'green' way of thinking. Still today it handles the sludge and returns it back to nature in a bio-friendly form. |
| 16 | 7603 | Agreement on the connection of district heating networks and deliveries of heat over the national border | Environmental protection | 1993 | General public, public authorities | Agreement on the connection of district heating networks and deliveries of heat across the national border (1993). The purpose of the agreement is to connect the district heating networks and district heating supplies between Haparanda Värmeverk and Torneå town energy plant. It is a win-win cooperation benefiting the environment and economy, as it allows to reduce costs and increase the consumption of renewable energy sources. |
| 17 | 8349 | Inter-municipal agreement on mutual assistance in case of fires and major accidents | Civil protection and disaster management | 1993 | Public authorities | The agreement stipulates common use of equipment for oil recovery, rescue team and management alertness, coordination of education etc. The municipalities have jointly invested in specialized equipment and instruments. Torneå town and Haparanda municipality have jointly acquired a skylift that is being used by two municipalities. |
| 18 | 8366 | Large-scale cross-border cooperation in the field of emergency prevention, preparedness and response in the Barents Euro-Arctic Region | Civil protection and disaster management | 2008 | Public authorities | Agreement between the Governments in the Barents Euro- Arctic Region on Cooperation within the Field of Emergency Prevention, Preparedness and Response (December 2008). Based on the Barents Treaty, the authorities can make agreements with the Russian authorities on assistance, costs and cooperation |

Figure 3:1 Number of CPS per theme

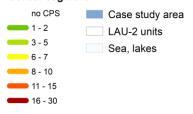


Source: Service provider CPS database, 2018

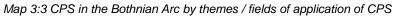


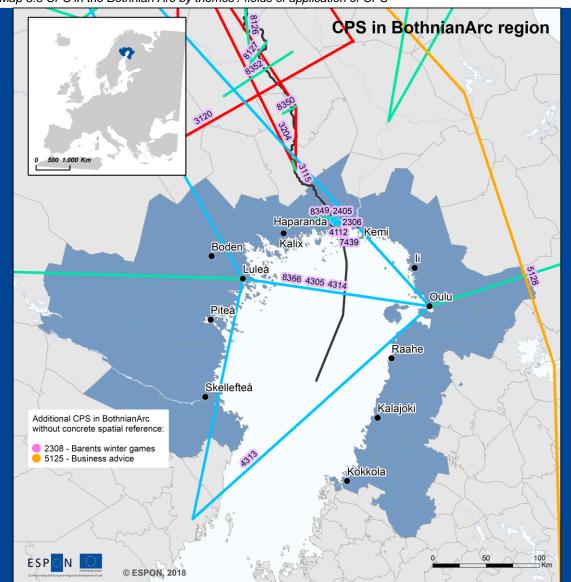


Number of CPS per border segment



Local level: LAU2 Source: ESPON CPS Origin of data: TCP International, 2018; RRG GIS Database, 2018



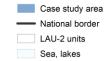


Themes / fields of application of CPS services

- Oitizenhip, justice and public security
- ---- Civil protection and disaster management
- Communication, broadband and information society
- ---- Education and training
- Environment protection

- Spatial planning, tourism and culture
- Transport

Local level: LAU2 Source: ESPON CPS Origin of data: TCP International, 2018; Eureconsult, 2018; RRG GIS Database, 2018



4 CPS provided in the region

From the above overview of existing CPS in the region, the following two CPS have been identified together with the stakeholders for a further in-depth analysis:

CPS 1: Joint language school

CPS 2: Joint sewage treatment plant

The following sections provide detailed insights into the framework conditions of CPS provision, the needs addressed, organisation of the provision of CPS and the key elements that may be interesting for transfer to other CPS in the Bothnian Arc region and beyond.

4.1 CPS 1: Joint language school

A joint language school is a successful example of a CPS in the field of elementary education in Haparanda and Torneå that has been running for nearly 20 years. The school is located in Sweden and is operated under the Swedish educational system and laws, but is open for the Finnish children to enrol.

4.1.1 Facilitating bilingualism and preserving culture and traditions

The joint Haparanda-Torneå language school was established in 1989 and has been a continuous cooperation since then. Its establishment was motivated by the cultural and educational considerations.

Education is an important tool for strengthening cross-border ties and people-to-people contacts that can create and strengthen mutual understanding, contribute to increasing levels of trust among actors across borders and build structures for future cooperation (Hörnström and Berlina, 2017). Raising children in a bilingual environment, developing friendships across the border and learning about the region's joint history contributes to building a common identity and diminishing the cultural and language barriers.

The main aim for establishing the joint language school was facilitating bilingualism and building a common identity. Further purpose was to contribute to preserving culture and traditions of the Torney Valley by educating the younger generation about their home region, the joint culture and history (Haparanda municipality and Torneå town, 1994). Thereby the joint language school has the *development task*, referring to a delivery of specialised public services adapted to the special needs of a territory.

4.1.2 Strong institutional framework supporting the cooperation

Among the guiding documents that provided the foundation for developing the language school was an agreement on Cross-border open school attendance at a comprehensive school level signed between HaparandaTornio in 1978. This agreement served as a preparatory plan for the joint language school.

The language school operates on basis of a specific local Agreement on a Joint Language School concluded between Torneå town and the municipality of Haparanda in 1994 (Haparanda municipality and Torneå town, 1994). The agreement specifies the distribution of roles and responsibilities for the management and organisation, including the financial arrangements between the two towns.

Moreover, the establishment of the joint language school also found support at the higher political and even pan-Nordic level. The cooperation in the field of education among the Nordic countries is promoted by the Helsinki Treaty (1962) that aims at strengthening the close ties existing between the Nordic peoples. The Article 9 states that the Nordic countries should "maintain and extend the range of opportunities for students from other Nordic countries to pursue courses of study and sit examinations at its educational establishments" (Nordic Council of Ministers, 2018).

At the operational level, the Board of the Provincia Bothniens is responsible for decisionmaking when it comes to the strategic questions and future developments. The Board is composed of the elected public authorities from both sides of the border. No specific organisation was created for providing an operational backing to the joint language school.

4.1.3 One-sided ownership model and a service provision agreement

The school building (hard infrastructure) is located on the Swedish side of the border and is in full (one-sided) ownership of the Haparanda municipality. Haparanda municipality bears the main responsibility for management and administration of the school. According to the current agreement, Torneå is paying a special sum per child, as well as a fee for service provision (i.e. the use of the building, administration, materials and other running costs).

When it comes to the outreach of the language school, it is stipulated in the agreement that the school should have 12-18 pupils in each grade from each municipality (Haparanda municipality and Torneå town, 1994). Although there is an interest to maintain an equal share of pupils from both countries, in reality the number of applicants fluctuates from year to year (Öberg, 2017). In recent years, the number of applicants has dropped that can be explained by the demographic change.

The personnel at the joint language school is bilingual and the teaching language is both Swedish and Finnish, depending on the students' mother tongue. Both languages are used when teaching e.g. music, sports and crafts, when the students from several grades are combined in larger groups.

4.1.4 Infrastructural, legal and demographic challenges

There is an ongoing debate about the future of the joint language school, and the poor state of infrastructure is among the key topics being discussed in this connection. Poor maintenance of the public buildings, including the joint language school, is seen as an overall challenge in Haparanda, for which the public authorities have been largely criticised.

The school building requires renovation and the authorities in Haparanda are expected to come up with an appropriate solution. Since the building is located in Sweden, there is no willingness from the Finnish side to co-fund the refurbishment project. Another solution suggested by the Finnish authorities was relocating the joint language school to Torneå (Finland), where plenty of suitable buildings are available. Legislation is however a stumbling stone for the latter solution, as the school operates under the Swedish legislation and follows the Swedish school system despite it being a joint school. Solving legal issues may take too long time, but the need for solution is rather urgent.

The demographic and economic challenges present a considerable threat for the future of the joint language school as well. Low birth rates and outmigration are among the challenges that many rural areas are facing, including the Bothnian Arc area. From ca 500 children born in the area in the beginning of the 90s the number dropped to 69 in 2017, thereby impacting the class sizes at the joint language school. Due to fewer children being born and declining expenditures on welfare, keeping the schools open becomes challenging and expensive.

4.1.5 New agreement on the joint language school

Tornio City Council and the City Council in Haparanda agreed on 26 March 2018 that the current agreement on the joint language school will be terminated and a new agreement between the two cities will be developed by the end of 2018. The new agreement will be made more flexible to better accommodate the demand of the pupils from both sides of the border. In the next years, for example, the plan is to have one bilingual and one Swedish class, due to a higher share of applicants from Sweden.

The school children who have already been enrolled in their education will be given a possibility to complete their studies in the joint language school. The additional elements of the new agreement are being discussed.

It was agreed at the board meeting in June 2018 that the physical location of the school will not change and that a new agreement must be made more flexible in order to better respond to the fluctuating demand in the future.

4.1.6 Success factors and outlook

Having in mind that establishing CPS is often time- and resource-demanding process, strong political support and backing from both sides of the border were crucial for ensuring success and a long-term sustainability of the joint language school.

Despite rather low legal and administrative barriers for developing the CPS, the need for giving more decision-making power to the local authorities in deciding on the framework for CBC and CPS was emphasised. Lowering legal requirements and giving more power to the local cooperation agreements and city-to-city agreements are viewed as means for facilitating CPS.

The joint language school is a good example of how differences in the border area (e.g. language) could be turned into opportunities. It could serve as a role model for other crossborder areas affected by the demographic change. A joint school could be a good alternative to keeping own national schools half-empty and instead saving resources and joining efforts for developing a CPS.

4.2 CPS 2: Joint sewage treatment plant

Joint sewage treatment plant is a CPS that involves sharing hard infrastructure between Haparanda municipality in Sweden and Torneå town in Finland. The service is provided to the residents and businesses in the cross-border area since 1971.

4.2.1 State support paves the way to infrastructural projects

A joint sewage treatment was built in Haparanda 1971 and was designed to provide sewage treatment services for both Haparanda municipality and Torneå town from the day of its establishment. The establishment of the sewage treatment plant was motivated by the joint need for a service. Building two treatment plants on both sides of the border would not be economically feasible, considering low volumes of sewage due to small population size. Quality, effectiveness or efficiency improvement are the main rationales for establishing the CPS.

The plant was built on the Swedish side, as the Swedish government provided investment support for the environmental infrastructure projects in the 1970s'. The investment support from the Swedish state covered about 70% of the construction cost of the plant. Moreover, Sweden was more advanced in the environmental technology and had more expertise and knowledge on the sewage treatment facilities in the 1970s'. In addition to the Swedish state, the construction of the sewage treatment plant was financed by Haparanda municipality (15%) and by Torneå town (15%). The additional investments were obtained from the state grants, and partly from Haparanda municipality and Torneå town, based on the degree of the utilisation of facilities (BRAB, 1996). The first agreement on a joint sewage treatment plant was signed between Haparanda municipality and Torneå town in 1971.

Until 1996, Haparanda municipality was the owner of the sewage treatment plant and was running it as part of its municipal service.

4.2.2 Privatisation of the joint sewage treatment plant

In 1996, the operation of the plant and its ownership was transferred to a jointly owned limited company BRAB (*Bottenvikens Reningsverk* AB) in accordance with the terms outlined in the new consortium agreement (BRAB, 1996). The third partner Lapin Kulta Brewery was included as a shareholder in the consortium. Among the main reasons is that Lapin Kulta Brewery started to produce large volumes of waste water that required treatment. The sewage treatment plant needed to increase its capacity and required expansion.

The share capital was distributed among the shareholders as follows: Torneå town 65% of shares, Haparanda municipality 25% and Lapin Kulta Brewery (LOY) in Torneå 10%. The shareholders are members of the Board of BRAB.

According to the 1996' consortium agreement, the expansion of the sewage treatment plant required ca 40 million SEK investment. The financing came from the share capital, bank loans and state grants. The investment costs were distributed among the parties as follows: Torneå town 50%, Haparanda municipality 25% and LOY 25% (BRAB, 1996).

In 2010 the brewery was shut down but the company agreed to give away its shares to Haparanda municipality and Torneå town and repay its investments. Since 2010 the sewage treatment plant is owned by Haparanda municipality and Torneå town.

4.2.3 Operational framework for BRAB

BRAB is operating under the Swedish legislation and is responsible for maintaining the sewage treatment plant and for meeting the environmental requirements regarding the quality of the outgoing water.

BRAB generates revenues by charging the parties for the quantity of wastewater that arrives to the waste water treatment plant and it is not aiming at making profit. The company does not have a specific development strategy. Its overall aim is to provide the best possible service at the lowest costs.

4.2.4 Barriers to sludge transport across the border

Among the key concerns today are the additional requirements posed on the transport operators transporting sludge across the border according to the EU guidelines. These requirements primarily affect small operators in Finland transporting sludge from rural areas. According to the requirements extra licence should be obtained that is a bureaucratic burden and an extra cost.

There were no particular legal or administrative barriers for establishing the joint sewage treatment plant. The agreement was easily reached between the towns. The legal advisor was consulted when BRAB was established and no objections were received.

4.2.5 Success factors and outlook

An equal distribution of capital between the two shareholders (50/50) facilitated the decisionmaking and reconciliation of mutual interests. According to the consortium agreement, the costs for updating infrastructure and other maintenance work will be shared following the same principle.

In future, the key challenges for the sewage treatment plant are technological. Considerable investments will be needed to improve sewage networks and machinery.

5 The future of CPS in the region

Education and labour mobility were identified as the most promising and important policy fields for future CPS development in the Bothnian Arc border area.

Although there are a number of successful examples of CPS in the field of education in the Bothnian Arc region, there is an interest and willingness from the regional actors to further develop and extend this cooperation to cover both school and university education.

Facilitating labour mobility across the border was highlighted as an important theme for collaboration, aiming at making the Bothnian Arc area as one labour and business region. The CPS could entail smoother recruiting instruments to balance the level of unemployment across the borders.

These topics were discussed at the stakeholder workshops in Luleå and Oulu on 11-12 June 2018. The results of the discussions are summarised in the following sections.

5.1 Future CPS in the field of education

Increasing the cooperation in the field of school and university education, including the preschool education in minority languages was considered important in the cross-border area for several reasons. These needs are mainly stemming from the consequences of demographic change (fewer children) and labour market challenges (shortage of teachers), but also as a possibility to increase the competitiveness of the Bothnian Arc area in the long-term by raising a new generation with strong people-to-people contacts across the border.

Firstly, children and youth are viewed as the building blocks for building an integrated crossborder region in future. Increasing personal ties and people-to-people contacts, and improving language skills through educational measures from an early age contributes to **building the culture of cooperation**. It should become natural for the next generation to cooperate and work across the border. Despite seemingly low barriers for cooperation, **language** differences are often viewed as a stumbling stone for the cooperation today. Thus, lowering the language barrier by raising the interest in the Swedish language among the Finns (and vice versa) and increasing exchange and collaboration among the Finnish-Swedish children and youth are viewed as preconditions for developing a fruitful cooperation in future.

Secondly, CPS in the field of education is viewed as a means to increase efficiency, quality and saving costs. There are a number of good practices from both sides of the border when it comes to the teaching practices, educational programmes, management and operational environment that could be transferred across the border. Moreover, collaboration makes sense from the perspective of saving resources. For instance, it could be more efficient to have a joint primary school teachers' educational programme in minority languages (Finnish, Sami and Meänkieli) at one university in the Bothnian Arc area instead of duplicating the efforts on both sides of the border.

5.1.1 Joint education in minority languages and youth entrepreneurship

Currently, the cooperation in the field of education in the Bothnian Arc area is realised on the basis of the short-term initiatives and projects, e.g. facilitating study visits and students exchange as part of the schools' core budgets and using Interreg funding. There is an interest among the stakeholders to develop a more long-term and strategic collaboration in the field of education.

One concrete idea for CPS was developing a joint programme or cooperation in the preschool **education in minority languages** that requires a collaboration at the university level. Despite a clear added value of such cooperation for both countries, the authority or institution willing to take the lead and drive this question forward has not been assigned yet.

Another concrete idea for a CPS was developing a joint platform or programme on **youth entrepreneurship** for school students in the Bothnian Arc area, as this topic is of mutual interest for the actors at both sides of the border. The activities could include, for instance, regular youth exchanges and courses, participation in fairs and summer camps with entrepreneurship as a crosscutting theme. The City of Oulu (Educational and culture services), Luleå municipality and UF Norrbotten are already working on implementing this idea and a project proposal was submitted to the Interreg programme. What is needed next, according to the stakeholders, is **planning together** by the public authorities at both sides of the border, and developing **concrete aims and steps** to reach the goals.

5.1.2 Organisational and structural barriers for cooperation

There is a high interest in developing CPS in the field of education and a general consensus on the added value and benefits both on the Swedish and Finnish side of the border. Despite this, there are a number of barriers for further developing CPS that are mainly of the organisational, structural and political character.

According to the stakeholders interviewed, barriers for developing CPS in the field of education prevail at the practical and organisational level. The stakeholders emphasise that despite an overall interest, it might be challenging to find someone **to take the lead and drive the development**. This is seen as problematic in many cases. From the experience of the stakeholders, having ambitious plans for developing CBC and CPS is hardly enough if the **coordination and strong leadership is missing** or is poorly functioning.

Finding **the right and committed partners** and authorities to cooperate with was brought up among the additional challenges, too. Since the CPS development is voluntary and is an additional task for the public employees, the CPS should have a **clear added-value**, **be concrete** and well-planned. Otherwise there is a risk that the CPS might be perceived as an additional burden on top of the regular work tasks and the motivation to work with it might be low. "The CPS has to be built in a way that it helps teachers to achieve their goals better than they would have done without it" (interview 2018).

Moreover, the stakeholders note that there is a **difference in ways of working and decision-making** between Sweden and Finland that may slow down the practical implementation of the activities. In Sweden, the decision-making is more formalised and the political commitment is necessary to kick off the activities, while in Finland there is less time needed to get things started.

Structural problems were emphasised as barriers for developing CPS in education. Matching the new ideas for CPS into the existing structures is viewed as a challenge. Due to a low flexibility of the public structures changes are difficult to implement in practice.

Administrative issues may also hamper the development of CPS, as the school systems differ in Finland and Sweden. For instance, the educational programmes for teachers in the two countries do not match. While there are no restrictions for teachers with a Finnish diploma to work in Sweden or other EU countries, the teachers with a Swedish diploma willing to work in Finland would require complimentary education. Since seeking for employment among the Swedish teachers in Finland is not that common, this barrier is not as significant in practice.

Need for support from the national level in developing education in minority languages

No specific challenges when it comes to the legal framework were brought up in the context of developing new CPS in the field of education. When it comes to the political framework, the interviewed actors note that developing CPS in the field of education in the minority languages should go beyond the agreements amongst universities. Since the minority policy is a national priority issue, both countries are entitled to develop structures to educate own teachers. Thus, the agreements and decision-making at the national level between the countries are needed to drive this development.

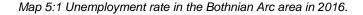
5.1.3 Potential next steps

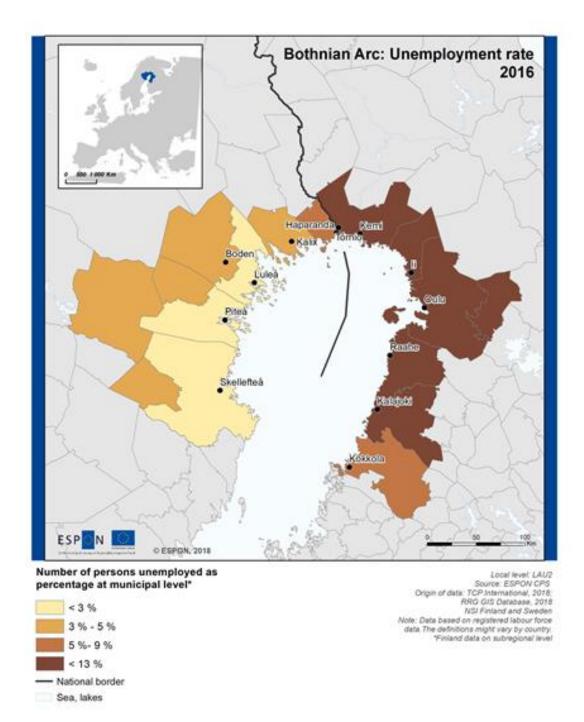
Assigning a coordinating authority taking the lead and driving the development of new CPS is among the most important next steps to be taken. The presence of the Bothnian Arc association as a cross-border organisation is a strong asset for the region and its capacity should be fully utilised. The association can have a coordinating function pooling the actors and resources together, initiating a dialogue and finding the right and committed partners, as well as lobbying at higher political level.

Moreover, further concretising the objectives and developing a concrete action plan with a timeline and responsible actors may be helpful in developing a new CPS.

5.2 Future CPS in the field of labour mobility

The Bothnian Arc area is characterised by a rather low unemployment rate on the Swedish side of the border and significantly higher rate (almost 2-3 time higher) on the Finnish side (see Map 5:1).





Despite these differences, both Swedish and Finnish labour markets face common challenges as a consequence of changes in the economic and industrial specialisation in the region, the demographic change (ageing population and generation shift), but also youth outmigration to larger urban centres. Moreover, ageing population increases demand in certain sectors and professions, such as health care. Another challenge is to keep and attract young females to the regional labour market, as it is characterised by the dominance in industrial jobs and the technical specialisation of university education (e.g. at Luleå University of Technology). Labour mobility can be one way of alleviating specific labour shortages and mismatches in the Bothnian Arc area by matching labour demand and supply, and thus can contribute to improved employment and competitiveness in the Bothnian Arc area.

Working together in matching industry needs with skills supply was emphasised as an important theme both Swedish and Finnish stakeholders. Luleå municipality has recruitment needs of ca 500-700 people annually. Considering high unemployment rate on the Finnish side of the border, labour mobility could present win-win opportunities for both countries (Luleå Municipality, 2018).

5.2.1 Improved recruitment instruments

Jobs in the service sector such as teachers, nurses, chefs, as well as building and construction specialists are among the professions that are in high demand on the Swedish side. The possibilities of attracting teachers from Finland has been widely discussed by the stakeholders. According to the stakeholders, the main challenges for attracting teachers from Finland are language barriers and a lack of structured information on the employment offers as well as overall administrative challenges related to the cross-border movement.

Against this backdrop, **improved recruitment instruments** have been discussed as a potential new CPS. It was highlighted that there is a genuine need for **finding new structures and models** facilitating labour mobility and matching people and jobs, but no concrete model was suggested at this stage.

The current approaches that are based solely on the public sector initiatives were criticised for being ineffective and insufficient (e.g. regional EURES offices). In Finland, the Ministry of Economic Affairs and Employment and Public employment services (TE-palvelut) have provided financing for promoting the involvement of the private sector in addressing labour mobility and unemployment. This approach goes beyond the traditional understanding of a public service. At the same it adds a new perspective and challenges the traditional ways of working.

5.2.2 Facilitating internships and summer jobs

The stakeholders also discussed the need for working with a **younger generation** in addressing the labour mobility issues that is closely linked with CPS in the field of education. It was emphasised that there is a need for building a culture for cross-border cooperation and, eventually, labour mobility. This calls for good language skills, flexibility and other intrapersonal qualities that could be developed from early age.

Thus, **facilitating internships and summer jobs in the public and private sector** among recent graduates or students in a neighbouring country was suggested as another CPS. It is seen as a means to create a fertile environment for the cross-border labour mobility in future. Developing ways for people to try out working abroad could lead to permanent employment and a long-term collaboration in future. This work should be facilitated both by the public and

private sector actors. The need for the collaboration with the private sector was emphasised in this case as well.

As in case of the CPS in the field of education, language was discussed as a barrier for crossborder labour mobility (e.g. teachers). Hence the need for **lowering the language barrier** was also discussed in the context of facilitating labour mobility. Besides improving the language skills in the language spoken in the neighbouring country, introducing English as a working language was discussed as an opportunity for facilitating labour mobility and attracting labour from other countries. However, no concrete idea for a CPS was suggested.

5.2.3 Poorly functioning labour market services

The stakeholders in the Bothnian Arc area stress that there is a low awareness among the politicians about the challenges when it comes to labour mobility issues, including the poorly functioning labour market services in the area.

The challenges are mainly at the practical level and there is a need for concrete solutions with the involvement of the private sector actors, rather than legal framework adaptations and adjustments. The stakeholders note that it is not easy to find structured and targeted information about employment offers on the other side of the border. There are no direct announcements of the employment opportunities in the neighbouring countries in the local / regional newspapers. Also, there is a need to improve information and counselling services about the administrative and legal requirements (e.g. taxation, licenses) when working across the border.

5.2.4 Potential next steps

In facilitating internships and summer jobs, a suggestion was made for the municipal authorities to take the lead and drive the development. For instance, one could start with a cooperation agreement on the cross-border internship programme between Luleå and Oulu municipalities. In addition to the municipal jobs, one could seek to gradually attract private sector companies in the collaboration.

The discussion on developing the improved recruitment instruments involving new structures and models for facilitating cross-border labour mobility is ongoing. It is on the agenda of the Bothnian Arc association and the municipality of Oulu.

5.3 Assessment of future CPS development in general

The stakeholders note that there is no lack of ideas for developing CPS in different policy areas. The stakeholders agree unanimously on the benefits of CPS and CBC in general, and emphasise that there is a strong willingness to collaborate. The key question, according to the stakeholders, is who is going to take the lead and drive the development. Future CPS development requires commitment from the both sides, especially if no extra financing to the new CPS is envisaged. The presence of the Bothnian Arc association as a cross-border organisation is an important asset and an opportunity for the area.

Long distances between the major town in the Bothnian Arc area and underdeveloped transport linkages hinder the direct collaboration and people-to-people contacts on a daily basis. Therefore the activities aiming at overcoming these challenges and bringing people closer together were considered important, such as the collaboration in education and labour mobility.

At the same time the need for new and flexible structures going beyond the traditional understanding of the CPS in addressing complex issues such as labour mobility, was highlighted. The innovative approaches often rely on the collaboration with the private and third sector actors in service provision and could result in more effective approaches in meeting the challenges.

6 Lessons learned, recommendations & transferability

Building on the previous chapters, a number of lessons learned and general recommendations can be drawn that are not only valid in the context of Bothnian Arc region but might help other border regions and municipalities to prepare and introduce CPS in general.

Political support and dialogue. According to the stakeholders, one could develop many more CPS in the Bothnian Arc area if the obstacles of legal and administrative nature were overcome. In this connection, having a close dialogue with the higher levels of government and continuous lobbying efforts to the EU and the national level are considered important. The need for giving more decision-making power to the local level authorities in developing CPS was emphasised.

Joint planning and developing concrete activities. The stakeholders emphasised repeatedly the need for joint planning of the activities and developing concrete actions and steps to ensure the successful implementation of the CPS. Having a long-term action plan could facilitate the work and ensure the commitment of the stakeholders.

Strong leadership and committed partners. The need for finding right and committed partners, good coordination and strong leadership were repeatedly highlighted among the success factors for developing CPS. It may therefore appear natural for the Bothnian Arc association to facilitate such development or even take the lead.

Bridging the physical distance. The long distances between the two major cities (Oulu and Luleå) and lack of public transport services hinder the direct people-to-people contacts and interaction between the public authorities and service providers. Finding alternative ways of communication and maintaining contact on a regular basis could be important for further developing of CPS (e.g. online meetings or arranging meetings 'half way' in HaparandaTornio).

Innovative approach to CPS involving private and third sector actors. In recent years, there has been a growing understanding of the limitations of the traditional approach to public

services provision, often criticized for being inefficient and costly, non-flexible and not sufficient to meet the current and future challenges. The demographic problems, low population density and increasing scarcity of resources makes it essential to develop new solutions and work methods (Copus et al., 2017). These innovative solutions are often based on the involvement of the private and third sector actors. The need for fostering structural changes and developing new models of work was also emphasised by the stakeholders in the Bothnian Arc area in connection to fostering labour mobility. Thus, the future provision of CPS may require innovative approaches that go beyond the traditional understanding of the public service and open up to the involvement of the private and third sector actors (e.g. in developing improved recruitment instruments).

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