

Euborderregions

Case Study Report: Kiruna-Narvik (KINA) region

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Picture 1: Norwegian-Swedish border near Bjørnfjell. Collage. Photo by Ekaterina Mikhaylova

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1 Introduction

The towns of Kiruna (SE) and Narvik (NO) both lie north of the Arctic Circle in Sweden and Norway. This border region has long been defined by the mining and export of iron ore. Kiruna came into existence in 1900 as the rich iron ore fields started to be exploited in the region. Currently, Kiruna is experiencing an economic boom due to the rise in international iron ore prices, which has resulted in a low unemployment rate. Narvik has traditionally been an industrial town with railway connections to Kiruna and a busy port area, used mainly for the export of iron ore from Kiruna. Transport is still the main industry. The two towns have a symbiotic relationship and the railway is the main artery of the region.

The border between the Kiruna region and the Narvik region is long and mountainous; there is in fact only one crossing point, at Bjørnfjell. While the border represents an external border of the European Union, it is relatively open as Norway is a member of the Schengen Area and because of the long tradition of Nordic cooperation.

In this report, the Kiruna-Narvik cross-border region will be described and analyzed in-depth. In chapter 1, the key characteristics of the region will be outlined, including geography, historical background, population structure and overall socio-economic development. In chapter 2, we will provide more details regarding relations with different areas across the border. Chapter 3 will be devoted to analyzing the meaning and perception of the border location among different stakeholders within the region. In chapter 4 we will outline the external policies that have implications for the Kiruna-Narvik cross-border region, including EU policies and in particular the programmes under the European Territorial Cooperation (ETC) Objective (Interreg programmes), but also the rising importance of Arctic cooperation. Chapter 5 will contain a concluding discussion on what the potential future development paths are for the Kiruna-Narvik (KINA) cross-border region.

1.1 Methodology

The material used in the case study consisted of both empirical evidence and desktop analysis. The purpose of the desktop research was to identify the main societal actors and major groups of stakeholders involved in cross-border activities in the case study area, to obtain information about the organizations, the ongoing initiatives and cross-border cooperation (CBC) projects from the relevant websites, and to collect the background data about the case study area.

The most important part of the empirical investigation of the border region included qualitative, semi-structured expert interviews with representatives of various organizations in the border area involved in CBC. The interviews were conducted with local government agencies, civil society groups/voluntary organisations and local business organisations from both sides of the border; these were carried out face-to-face and audio-recorded. Among the topics addressed during the qualitative expert interviews were the organization's participation in CBC (type of cooperation, source of funding, evaluation of success of the project), the overall impact of CBC on the region and the

evaluation of CBC programmes (opportunities and barriers). In addition to expert interviews, two stakeholder forums were conducted (one on each side of the border), where the main findings of the empirical and background studies were presented and discussed.

It was also requested in the project toolkit specification that the expert interviews should be supplemented by cross-border questionnaires (CBQs) consisting of 10 core questions and 4 orientation questions. The requested number of CBQs was 200 per case study, which means about 100 questionnaires on each side of the border. This target was not achieved in the case of the Kiruna-Narvik (KINA) border region simply because there were not enough relevant actors to be interviewed. It should not be perceived as a major limitation of the study, however, as it shows the specificity and uniqueness of the border region and the northern territories in general, which are characterised by low populations and consequently a smaller number of public and private stakeholders.

The empirical material also consisted of quantitative data. Structured observations at the border-crossing checkpoint and the observations at the parking lots, marketplaces and shopping areas were carried out. The aim of the observations was to analyse the border traffic and estimate the presence of the foreign cars (and cars from the neighbouring country) in the selected areas. Moreover, prices on some popular commodities and petroleum were observed on both sides of the border in order to see the difference. More specific information about the observations and the results will be presented further in the report.

1.1 Geography of the case study area

Kiruna is the northernmost town in Sweden, located in Norrbotten County, 145 kilometres north of the Arctic circle. Kiruna is the fourth largest town in Norrbotten by population. The total area of the municipality of Kiruna is 20 551 km². Kiruna municipality houses Sweden's highest mountain, Kebnekaise. Kiruna municipality borders with Narvik municipality in Norway to the west (Map 1). Narvik is the third largest city and municipality in Nordland by population. The municipality is located on the Norwegian coast and has an area of 2 022 km². The municipality of Narvik borders with Kiruna municipality to the south and east.

The case study area is characterised by a harsh sub-arctic climate with short, cool summers with long hours of sunlight and long, cold winters with low amounts of sunlight. Snowcover generally lasts from late September to May. The climate in Narvik is slightly milder than one might expect for a town at this latitude due to the North Atlantic Current (extension of the Gulf Stream).



Map 1 Map of the case study area. Source: Nordregio 2014

Transportation and infrastructure

The E10 road passes through Kiruna and Narvik. Buses are the main means of public transport connecting Kiruna with the major towns of Norrbotten. The E6 crosses through Narvik municipality and connects it with the southern and northern parts of Norway. The railway provides daily passenger traffic on the line, connecting Luleå with Gällivare, Kiruna and Narvik, although this runs at a low frequency. There is also a night train from Narvik to Stockholm which passes Kiruna and trains to Narvik that start and end in Kiruna. There is no railway to the north or south of Narvik. By rail, it is only possible to reach Narvik from the Swedish side.

Kiruna Airport is located 8 km southeast of the city. A few flights per day connect Kiruna with Stockholm. The Narvik area has two airports – Harstad/Narvik Airport and Narvik Airport Framnes. The latter is a small regional airport located in the center of Narvik. It will be closed down in the near future.

Narvik hosts one of the biggest ports in Scandinavia, with an annual cargo volume of approximately 16-18 million tonnes (primarily iron ore). The cargo is expected to increase in the coming years due to the increasing exploitation of minerals. This calls for improved infrastructure as well as smart logistic solutions. The current railway between Narvik and Kiruna is a severe bottleneck in this regard (Bothniangreen, 2014) (see also section 1.5).

1.2 Historical background

The origin of the border

The current Swedish-Norwegian border was defined in 1751 on the basis of the Strömstad Treaty. Since 1751, the border has been changed several times. During the 17th century Sweden gained, for instance, the large Norwegian provinces of Jämtland, Härjedalen and Bohuslän. From 1814 to 1905 Norway and Sweden were formally in union with each other. Since 1905, when Norway regained independence, the border has been unchanged and uncontested.

The emergence of the towns of Kiruna and Narvik is closely linked to the development of the iron ore industry in Norrbotten. Iron ore fields in the Kiruna area were discovered at the end of the 19th century, and this triggered the development of the first settlements. The extension of the Iron Ore railway from Kiruna to the town of Narvik (the Ofoten line) in 1902 allowed for the transportation of iron ore from the mines in Kiruna and Malmberget to the ice-free port of Narvik (Tullverket, 2009).

From the beginning of the 20th century, Kiruna and Narvik developed from remote rural communities to small industrial towns. The Bjørnfjell settlement was established along the Ofoten line in the municipality of Narvik where the border crossing station is located today.



Picture 2: Norwegian-Swedish border crossing at Bjørnfjell. Photo by Bjørge Schwenke Fors

Cross-border co-operation in the shadow of historical legacies

The Norwegian-Swedish border is sometimes referred to as Europe's longest, oldest and most peaceful border. Longstanding and strong economic, social and trading ties between the two countries have existed throughout the history. In 1814, Norway obtained the legal status of an independent state (before 1814 Norway was a part of Denmark) and a union between Norway and Sweden was established. The Norwegian - Swedish Union (1814-1905) implied increased cross-border integration. Among the introduced measures were the abolition of custom duties for land transport and improvement of cross-border roads. The Union dissolved in 1905 with Norway's proclamation of independence (Interreg Sverige-Norge, 2010).

The peaceful and mutually beneficial economic cooperation in the border region was interrupted during World War II. The Iron Ore Line had strategic importance during the war, as Nazi Germany was dependent on Swedish iron ore supplies. Much fighting took place along the railway line close to Narvik, as the Allies tried to stop Germany's supply of iron ore. Attempts were made to blow up the rail bridge and the docks in the port of Narvik.

The cross-border contacts and cooperation between Norway and Sweden was resumed again in the middle of the 20th century. In 1959 Sweden and Norway signed a customs cooperation agreement, which was a unique phenomenon in an international context. Its major aim was to facilitate the border crossing and simplify customs controls and customs clearance. According to the agreement, only one border checkpoint per two countries remained at the border. At most of the border crossing stations customs staff from only one country (either Norway or Sweden) managed the border crossing for both inbound and outbound traffic. Since the 1960s the quantity of the border crossing stations between Sweden and Norway had been reduced. In 1957 there were nearly 40 border

crossing stations on both sides of the border (about 80 in total), whereas today there are only 12 of them (Tullverket, 2009). In addition, the Nordic Passport Union was established in 1958, which allowed citizens of the Nordic countries to travel and reside in other Nordic countries without a passport or a residence permit. This resulted in less strict customs and passport checks between Norway and Sweden (Tullverket, 2009). Crossing the Norwegian-Swedish border today is unproblematic in normal cases. Stopping at the border is required only when clearing something through customs or at request of the police (Tullverket, 2009).

In the early 1960s Norway and Sweden became members of the European Free Trade Association (EFTA), which also facilitated work of the customs staff at the border. After Sweden joined the EU in 1995, the border customs cooperation has been based on an agreement between the European Community and Norway (EEA). Swedish membership in the EU has not affected the established model of border customs cooperation between Sweden and Norway. The existing agreement facilitates trade and efficient allocation of resources (customs staff) between a limited number of border crossing points (Tullverket, 2009).

Minorities and cross-border migration

The Sami are the indigenous people who inhabit both sides of border. There are approximately 40 000 Sami in Norway (1% of the population) and 20 000 in Sweden (0.2% of the population) (National Sami Information Centre, 2005). The presence of the Sami population encourages CBC in some areas, particularly those which involve activities related to reindeer husbandry, tourism, language and culture.

Reindeer husbandry is a traditional Sami occupation and lifestyle, which has been historically affected by the creation of national borders and seriously threatened by the development of extractive industries and tourism. The border between Sweden and Norway, which was redrawn in 1751, became a barrier to reindeer herding, as reindeer migrate between different areas. At the same time, some allowance was made for Sami in this border agreement – they were given the right to cross the border with reindeer in spring and autumn. Transboundary migration of reindeer herding by the Sami has since 1919 been regulated in a number of reindeer grazing conventions between Norway and Sweden. The last one was negotiated in 1972 (Forrest, 1995).

1.3 Characteristics of the Kiruna-Narvik border region

The two municipalities of Kiruna and Narvik are similar when it comes to economic and spatial characteristics. As mentioned above, Kiruna and Narvik are closely connected because of the iron ore industry in the area. The development on one side of the border will affect the development on the other side. The current development in the area is very much affected by the fact that the city centre of Kiruna needs to be relocated (see also Section 3.1 p. 51). The expansion of mining operations risks causing cracks in the ground and a relocation of the city centre is therefore necessary. This is currently occupying the agenda for decision-makers and stakeholders in Kiruna municipality. A successful relocation of the city centre will ensure a continuation of the mining activities and a sustainable development of the city of Kiruna. The relocation is also of crucial importance to development in the Kiruna-Narvik border region as a whole.

In terms of socio-economic and spatial characteristics in the Kiruna-Narvik border region there are no remarkable differences. Among the common issues for both regions are peripherality, extremely low population density and sparse settlement structure. The majority of the population is concentrated in urban centres. In Kiruna, population density was 1.2 inhabitants per km² in 2012, which is about 19 times lower than the national average in Sweden (24 inhabitants per km²). The population density in Narvik is considerably higher than in Kiruna (9.5 inhabitants per km²) but it is still well under the Norwegian average (14 inhabitants per km²)¹.

Demographic development

From 2001 to 2011 both municipalities experienced a slight decline in population, by 0.1% in Narvik and by 0.6 % in Kiruna. Over the past three years (2010-2013) a slight increase in population was observed in both municipalities. The population in Kiruna increased from 22 944 people in 2010 to 23 196 people in 2013. The population in Narvik increased from 18 402 to 18 509 people over the same period of time (Table 1).

When it comes to gender balance, there is a surplus of men of economically active age over women in the border region, particularly in Kiruna. Female population has been on decline at a significantly higher pace than male population in both areas. In Norrbotten, there is a deficit of women aged 20-34 years (The County Council of Norrbotten 2012).

Table 1: Population in Kiruna and Narvik municipalities by gender 2010-2013. Source: StatNord 2014, SCB 2014, SSB 2014.

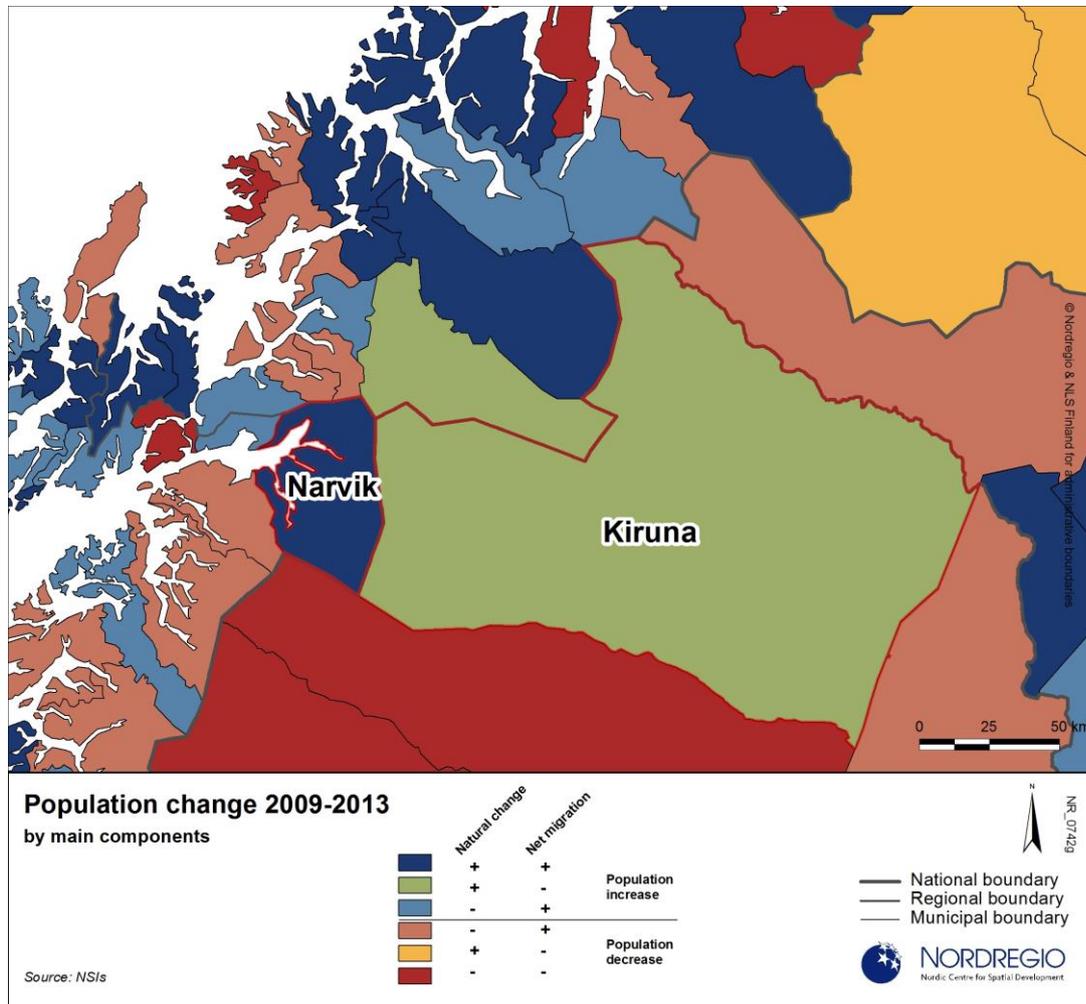
	2010	2011	2012	2013
Kiruna municipality				
Men	11,808	11,836	11,862	11,989
Women	11,136	11,131	11,110	11,207
Total	22,944	22,967	22,972	23,196
Narvik municipality				
Men	9, 174	9, 156		
Women	9, 228	9, 224		
Total	18, 402	18, 380	18, 473	18, 509

The balance between in-migration and out-migration (net migration) was slightly positive in the Narvik area in 2009-2013, and balanced in the Kiruna area (close to zero) during the same time period (Map 2). Net migration in Nordland has increased significantly since 2006, primarily due to foreign nationals’ immigration.

¹ Average population density in EU28 was estimated at 116.3 inhabitants per km² in 2012. Source: Eurostat, http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Population_statistics_at_regional_level, (Accessed 2014-11-19)

Map 2: Net migration in Kiruna/Narvik area 2009-2013. Source: Nordregio 2014

Kiruna is one of two municipalities in Norrbotten with a positive natural population change (an excess of births over deaths). Nordland is also characterized by a positive natural population change (189 persons in 2010 and 69 persons in 2013) (Map 3).



Map 3: Population change 2009-2013. Source: Nordregio 2014

Population ageing is an important demographic challenge in the case study region. The share of population aged 65+ has doubled in Norrbotten since 1970. It is projected that the share of residents aged 55-64 will decline by 13% from 2008 to 2025, while the share of those aged 65-74 will increase by 13% during the same time period. Already in 2007/2008 the number of retired persons exceeded the number of those entering the labour market in Norrbotten. Out of more than 100 000 professionals in Norrbotten, about 50 000 will retire in the next 10 years. During the same period, about 30 000 young people are expected to enter the labour market. Already today some municipalities in Norrbotten face a shortage of professionals working in childcare, social and health care services (The County Council of Norrbotten 2012).

The share of the elderly in Nordland is also significantly higher than the national average (

Table 2: Population by age in Narvik, Nordland and Norway in 2012. Source: NFK 2013

). At the same time there were 4.2% fewer people aged 20-44 years in Nordland than the national average in 2012 that could have an impact on the labour-market and put additional pressure on the working population to pay for pensions and other social services (

Table 2: Population by age in Narvik, Nordland and Norway in 2012. Source: NFK 2013

	0 - 5 years	6-12 years	13-15 years	16-19 years	20-44 years	45-66 years	67-79 years	80 years	Total
Norway	372438	424921	191488	259718	1703611	1379093	433018	221583	4985870
- per cent	7,5	8,5	3,8	5,2	34,2	27,7	8,7	4,4	100,0
Nordland	15805	19848	9788	13571	72376	70360	24259	12313	238320
- per cent	6,6	8,3	4,1	5,7	30,4	29,5	10,2	5,2	100,0
Narvik	1252	1383	712	1028	5732	5508	1804	1054	18473

).

Table 2: Population by age in Narvik, Nordland and Norway in 2012. Source: NFK 2013

Economic situation and development

Both the Norrbotten and Nordland counties have strong economies. The economy in the Kiruna area is on the rise thanks to iron ore-related activities, while Narvik uses its advantageous geographical position and relies on the status of being a transport hub. Iron ore transportation through the ice-free port of Narvik is among the key economic activities here. Tourism is another important source of income in the region, especially on the Swedish side of the border (e.g. Riksgränsen ski resort). Overall, the economy in the Narvik area is much more diversified than in Kiruna.

GDP per capita in Kiruna is above the national average. It was 103% of the national average in 2000 and 239% of Sweden's average in 2010. Norrbotten comes 2nd after Stockholm in terms of GDP per capita values (out of 21 counties in Sweden) (SCB 2014). Overall, Norway's GDP level is higher than Sweden's. The Norwegian GDP per capita (price level adjusted) was 95 % above the EU average in 2012 (EU=27) (SSB 2014). GDP per capita in Nordland was 17% below national average in 2011. Nordland takes 13th place out of 19 counties in Norway when it comes to GDP per capita values (SSB 2014). GDP per capita in PPS in Norrbotten is higher than in Nordland (34 700 against 29 500 in 2010). Looking at the EU 27 index (=100), GDP per capita in PPS in Norrbotten was 42% and in Nordland 20% above the EU 27 in 2010.

Trade

The Swedish exports to Norway account for about 10.3% of the total Swedish exports. The exports to Norway are dominated by machinery and transport equipment (42 %), followed by chemicals (10.3

%), energy products (9.2 %) and forestry products (9.1 %). The "other goods", which include for example furniture, accounted for 13.4 % of the Swedish exports to Norway in 2011 (Figure 1) (National Board of Trade 2013).

The Swedish imports from Norway account for about 9.2% of the total Swedish imports (2012). The imports from Norway are dominated by petroleum products, which constitute about 25.5 % of Sweden's total imports from Norway. If oil is excluded from the calculations, then the food sector accounts for the largest share of imports (30 %), consisting almost entirely of Norwegian salmon (27.9 %). The second largest import sector is mineral products (e.g. aluminum) (19.4 %), followed by energy products (12.7 %) and chemical products (11 %) (Figure 2) (National Board of Trade, 2013).

Sweden is Norway's fifth largest export market. The Norwegian exports to Sweden account for 5.8% of the total Norwegian exports (2013), which is almost 50% of the Swedish exports to Norway. At the same time, Sweden comes first when it comes to the share of imports to Norway, accounting for 13.3% of the total imports (2013) (SSB 2014).

The financial crisis in 2008-2009 led to a significant reduction in trade between Norway and Sweden, but already in 2010 the trade between the countries recovered to pre-crisis levels. The last few years have seen a significant growth in trade (Norway's official website 2013).

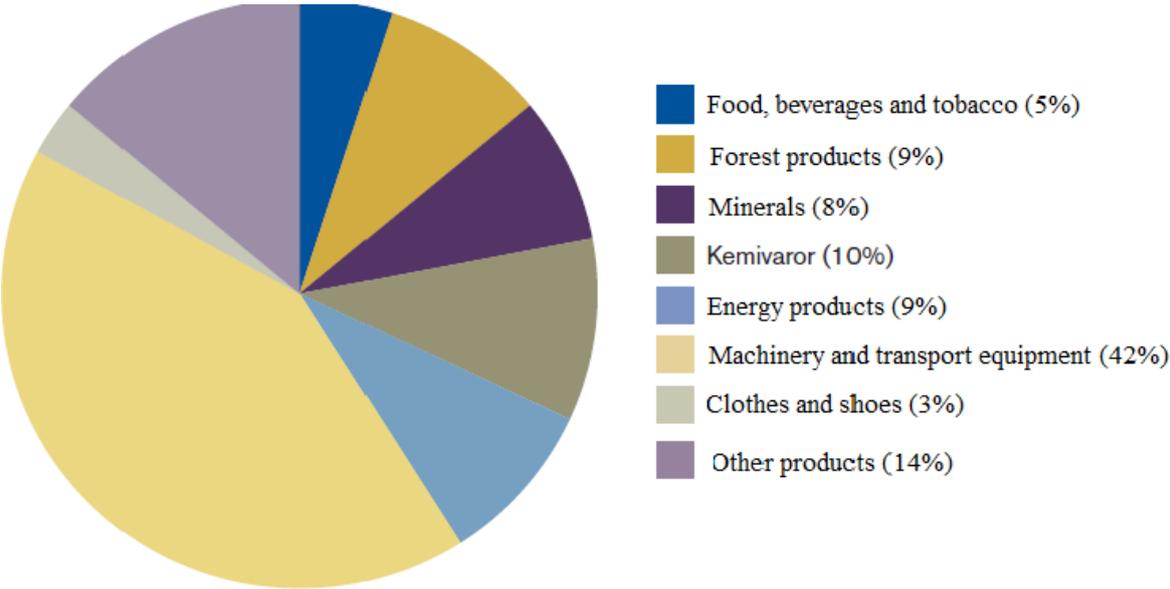


Figure 1: Swedish exports to Norway (by sector), 2011. Adapted from: National Board of Trade, 2013

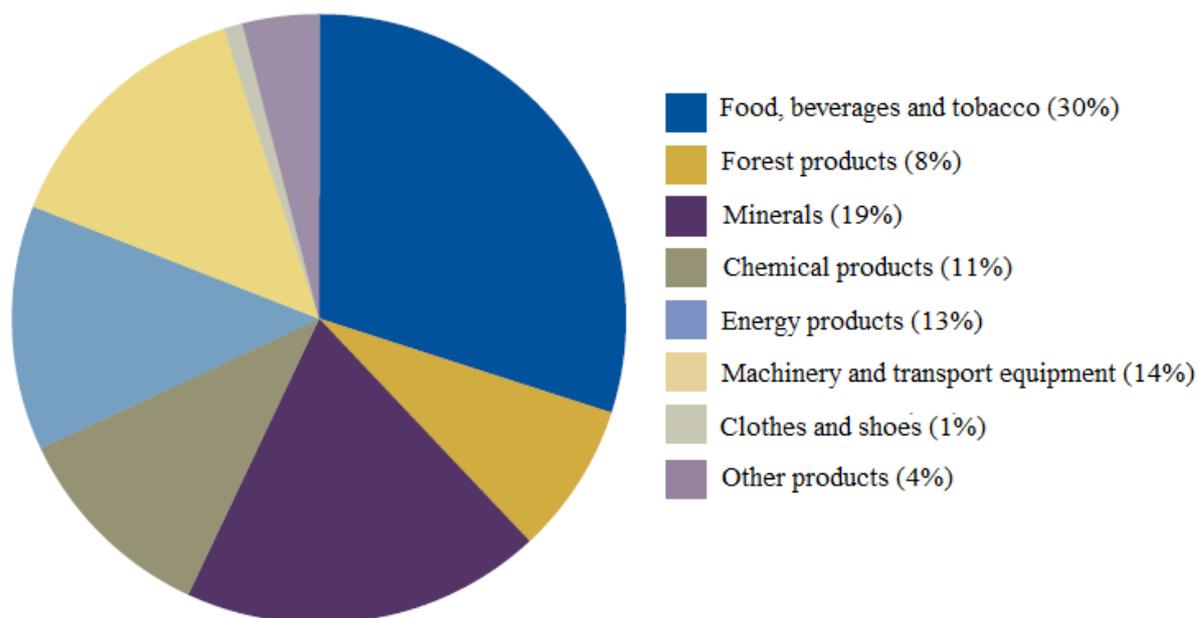


Figure 2: Swedish imports from Norway (excluding oil), 2011. Adapted from: National Board of Trade, 2013

Investments and entrepreneurship

Regardless of the fact that the level of mutual investments between Norway and Sweden has fluctuated over time, the investments from Swedish companies in Norway have been higher over the past five years (except for 2010) (Table 3).

In the case study region, the investments are mainly made in activities directly related to iron ore production and transport, such as iron ore lines and harbour facilities upgrades (see Section 2.1).

Table 3: Foreign Direct Investments in Sweden and Norway, 2008 -2012. Source: SSB 2014

	Norwegian FDI in Sweden (NOK million)	Swedish FDI in Norway (NOK million)
2008	3 193	13 095
2009	2 148	18 174
2010	12 324	3 663
2011	3 783	14 732
2012	121	15 945

Labour-market

Non-market services² (public sector) (e.g. health care, education and other welfare services) and industry sector (mining and manufacturing) are the most important employers in Kiruna, which account for about 38% and 34% in 2011, respectively. The mining company Luossavaara-Kiirunavaara AB (LKAB) is Kiruna's largest employer (2 109 employees in 2013). About 25% of the population were employed in market services³, and only about 2% in agriculture, forestry, hunting and fishing sectors in 2011 (SCB 2014).

In Kiruna, the employment rate increased in all sectors during the last decade except for market services. The industrial sector experienced the largest growth – from 21% of persons employed in 2000 to 34% in 2011. Unlike in other municipalities in Norrbotten, the male and female employment rate in Kiruna was balanced in 2012 (83.6% of male employment and 82,9% of female employment), while employment in Narvik municipality was female dominated (Map 4).

The employment rate in Narvik is slightly lower than in Kiruna and declined from 74,6% in 2008 to 72,8% in 2012 (Map 5). However, it is still higher than the employment rate in Nordland county as a whole. The majority of the population in Narvik was employed in non-market services or the public sector (48%), and market services (34%) in 2011. Employment in the public sector continues to grow, primarily due to an increasing demand for recruitment in the health and social care sector. Less than one per cent was employed in the agriculture sector and about 17% were employed in the industrial sector in 2011. In general, employment in industry and non-market services increased during the last decade, whereas employment in agriculture and market services slightly decreased.

Foreign workers play an increasingly important role in employment in Nordland. In 2013, for the first time, there were more than 10,000 foreign workers in Nordland, either on short or extended stay. An increasing demand for high-skilled workers with higher education qualifications is the main driving force for the growth in employment. The business community in Nordland is challenged by an increasing need for recruiting people, especially in the engineering field (Indeks Nordland 2013).

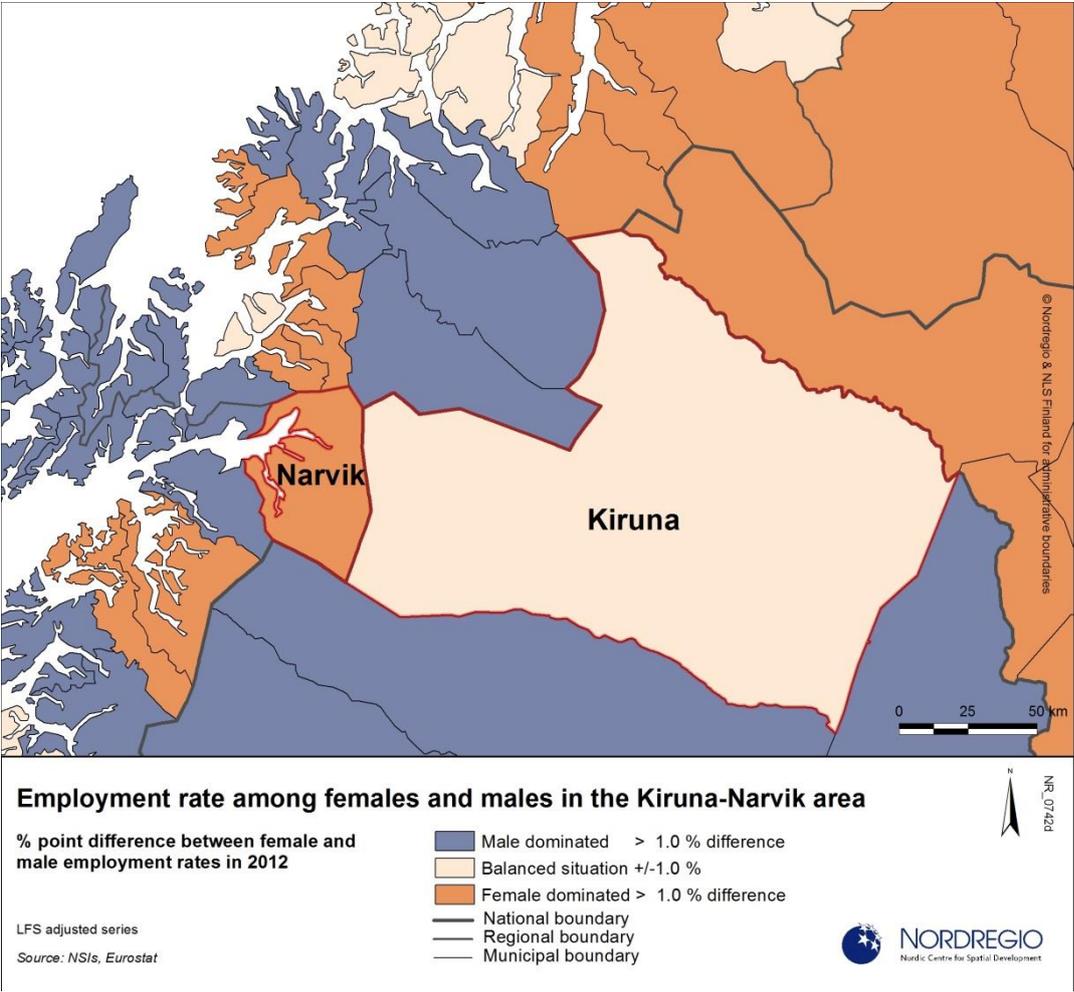
As mentioned previously, Norrbotten may soon face a shortage of employees within many professions and industries (Table 4). In July 2012, there were 1,778 vacancies at the employment agency (Arbetsförmedlingen), which were 410 vacancies more than during the same period in 2011. There is foremost a need for recruiting people in the public sector (health and social care, education) but also engineers, technicians and skilled administrators within public organizations (The County Council of Norrbotten, 2012).

² L+Q Public authorities, national defence; extra-territorial organizations; M+73 Research and development; education; N Health and social work establishments

³ G+I Wholesale and retail trade; transport, storage and warehousing; post and telecommunications; H+Oexkl90+P Personal and cultural service activities; J+Kexkl73 Financial institutions, real estate activities, business activities

Table 4: Expected retired professionals in Norrbotten during 2010-2025, as a percentage of the working force. Source: The County Council of Norrbotten, 2012.

Agriculture and forestry	46.5% (1207 people)
Industry	39.6% (7032 people)
Construction	38.9% (3515 people)
Private services	36.2% (14,273 people)
Public services	47.8% (22,031 people)

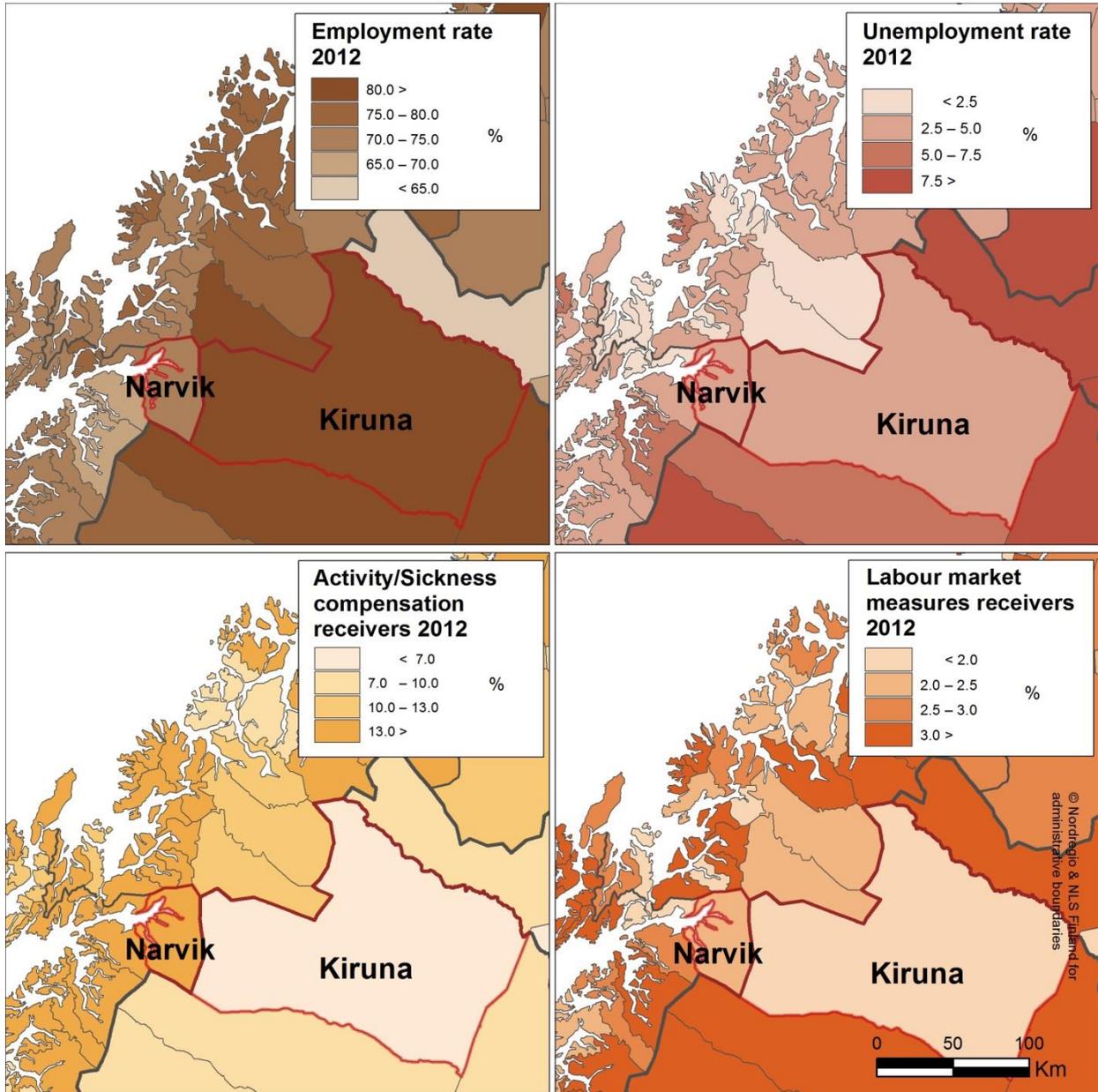


Map 4: Employment rate among females and males in the Kiruna-Narvik area. Source: Nordregio 2014

In the beginning of the 2000s the unemployment rate was considerably higher in Kiruna than in Narvik, but it declined from 7.9% in 2000 to 2.4% in 2011. The unemployment rate in Kiruna today is lower than the national average of 3.4%. In Narvik, the unemployment rate has varied between 1.7 and 3.6% during the last decade. Today it is at 2.7%, which is slightly higher than in Kiruna but corresponds to Norway's average unemployment rate (see Map 5) (Regionfakta 2014).

The Narvik area had a significantly higher share of persons aged 15-64 years receiving activity/sickness compensation than Kiruna in 2012 (more than 13%). The Norwegian national average is 9%, which is the highest in the Nordic region. Norway's high activity/sickness compensation rates in relation to the country's low unemployment figures can be seen in the light of the ongoing Norwegian debate on the usage of social benefits (Map 5) (Roto et al. 2014)

Labour market measures include activities such as internships, courses and start-up business assistance. Kiruna municipality had low rates of persons in labour market measures in 2012, significantly lower than the national average and slightly lower than in Narvik (Map 5) (Roto et al. 2014).



Labour market situation in the Kiruna-Narvik area

Source: AKU; NAV, SCB, SSB 2013

- National boundary
- Regional boundary
- Municipal boundary

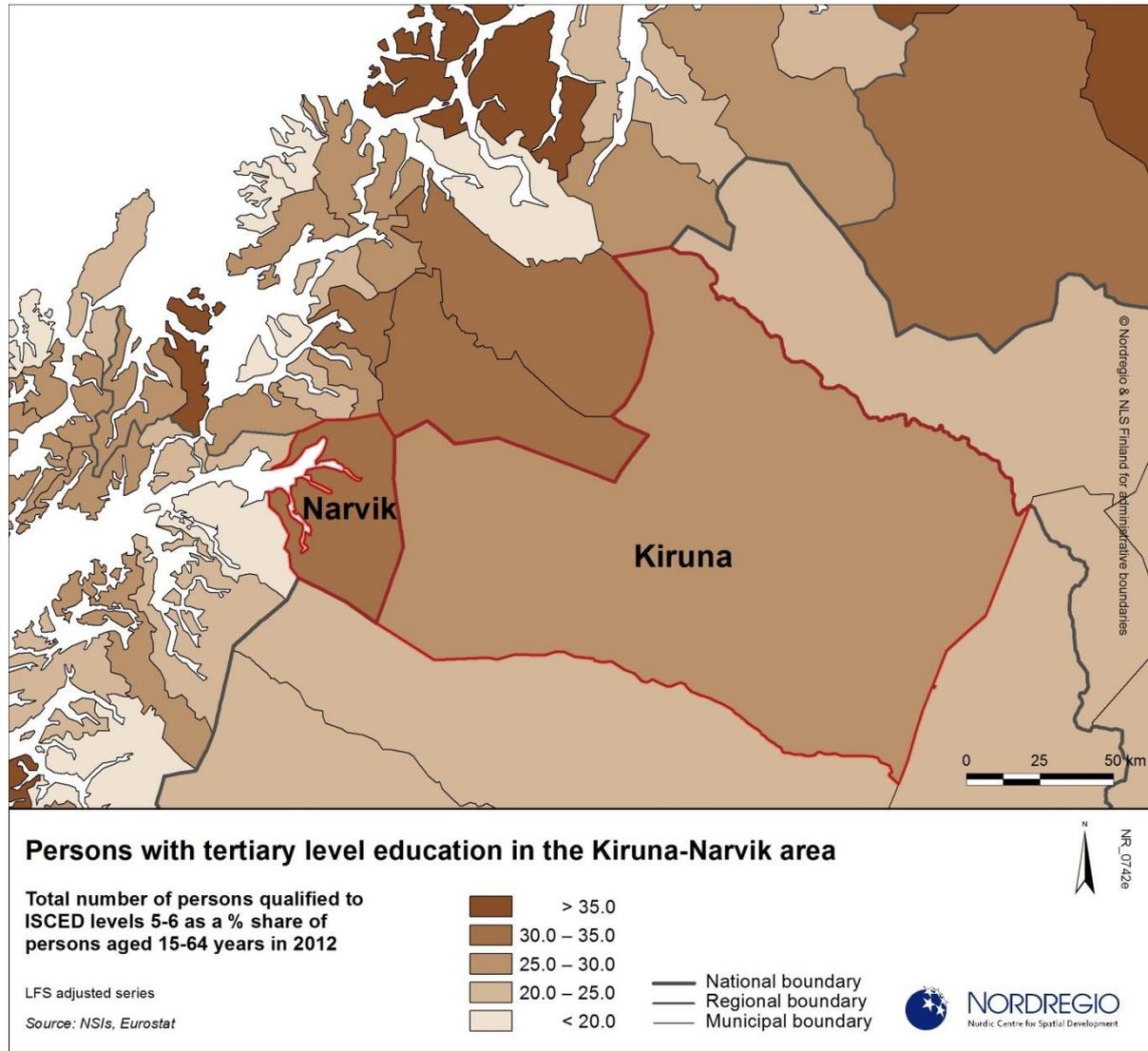


Map 5: Labour market situation in the Kiruna-Narvik area. Source: Nordregio 2014

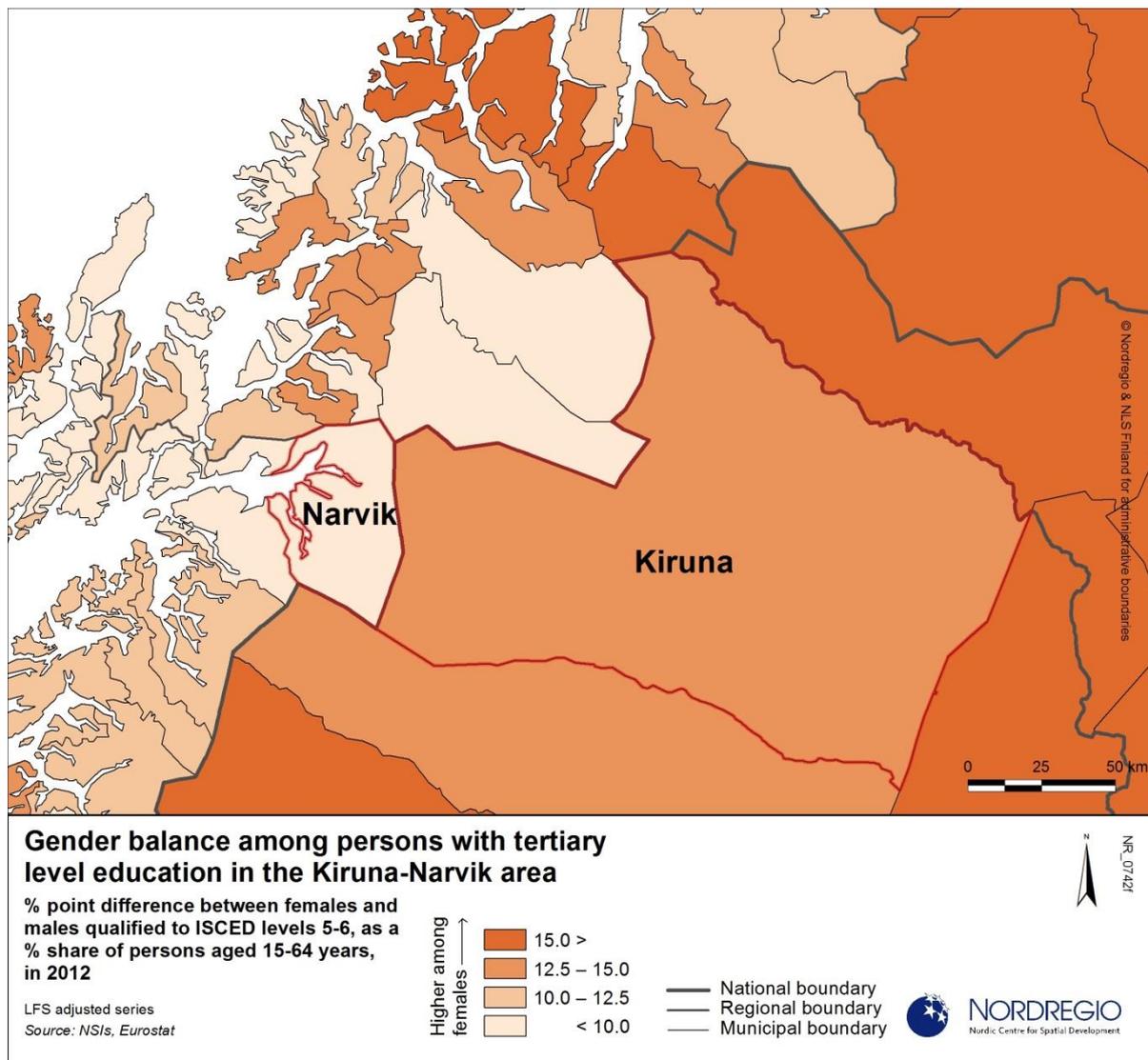
Higher education

Kiruna does not have its own university, or any other institute of higher education, whereas Narvik hosts Narvik University College with more than 1 600 students (Narvik University College 2014). The share of population with tertiary education (ISCED 5-6 levels) aged 25 -64 years was 33.7% in Narvik and 25 % in Kiruna in 2012, which is below the national averages for Norway and Sweden (Map 6).

In both municipalities the share of females with tertiary education is higher than the share of men (by 6.5% in Narvik and 13.7% in Kiruna). This refers particularly to the tertiary education with up to 4 years in duration (Map 7).



Map 6: Persons with tertiary education in the Kiruna-Narvik area in 2012. Source: Nordregio 2014



Map 7: Gender balance among persons with tertiary level of education in the Kiruna-Narvik area. Source: Nordregio 2014.

Norrbottnen's total expenditures on R&D (as a share of GDP) were twice as high as in Nordland (1.2% against 0.6% in 2011). In both counties the R&D expenditure is mainly concentrated on the universities, followed by R&D expenditure on business and enterprises.

An important feature of the territorial development in Kiruna municipality which will affect both residents and businesses in the near future is the necessary move of the city centre after subterranean cracks caused by mining activities. The decision regarding the relocation of the centre was taken in 2004. During the next two decades, about 3000 apartments and houses will be relocated. The moving of Kiruna is an extremely costly venture and will have a significant impact on the life of the inhabitants.

To sum up, the characteristics in this case study area are:

- Peripherality and low population density
- Population decline over the last decade; more drastic in Kiruna than in Narvik
- Surplus of men (of economically active age group)

- The presence of the Sami community
- Relatively poor infrastructure, especially on the Swedish side of the border. There is only one road between Narvik and Kiruna
- GDP above the EU average in Norrbotten and Nordland counties
- Unemployment rate in both municipalities is lower than the national averages

Main differences between the border regions:

- Narvik mostly relies on its status as a transport hub while Kiruna first and foremost is a mining town
- Tourism is more important economically for Kiruna than for Narvik
- The economy of Narvik is more diversified than that of Kiruna



Picture 3: View over Narvik harbour. Photo by Bjerge Schwenke Fors

1.4 Administrative and governance context

The administrative and governance systems of Sweden and Norway are – in a broader European comparison - very similar. This makes CBC somewhat less challenging. Norway has a three-layer governmental system with national, regional and local levels, but it is important to note that there is no hierarchical relation between the regional and the local level. At the regional level, the county councils (*fylkeskommuner*) are directly elected and are responsible for upper secondary schools,

dental care, culture heritage, public transport and regional development. Before a reform in 2002, the county councils were also responsible for health care but it is today organized in a number of state-steered 'health regions'. The left-centre government of 2005-2013 launched a regional reform with the goal of abolishing the county councils and replacing them with larger administrative regions. This reform failed and there was only a slight change in the responsibilities of the county councils. Norway currently has 428 municipalities. 55% of the municipalities have fewer than 5 000 inhabitants (Baldersheim and Rose, 2011). Currently, a municipal reform is being discussed in Norway where the intention is to merge municipalities with the ambition to make the provisions of welfare services etc. more efficient.

Sweden also has a three-layer governmental system and, like in Norway, there is no hierarchical relation between the regional and local level. At the regional level, the county councils (*landsting*) are directly elected and in charge of health care, public transport and in some cases cultural and regional development issues. A reform was launched in 2007 proposing to replace the county councils by 5-8 larger administrative regions. Partly due to difficulties agreeing on the geographical borders of these regions and partly due to the lack of engagement from the national level, this reform has not been realized. In a majority of counties in Sweden, regional development issues have been transferred from the county administration boards (the state representative in the counties, *länsstyrelser*) to regional councils that are (formally speaking) cooperations between municipalities in the counties. Two counties in the south of Sweden, Skåne and Västra Götaland, have directly elected regional assemblies responsible for health care, public transport, culture and regional development issues. In just a few counties, the county administration boards are still in charge of regional development issues. Thus, currently, Sweden has a *de facto* "asymmetrical" system when it comes to the governmental structure at the regional level (Hörnström, 2013). In Norrbotten, where Kiruna is located, the county administration board still plays an important role. The board has a formal mandate to handle regional development issues, such as responsibility of regional growth strategies and programs and the management of EU Structural funds. In addition, the county administration board in Norrbotten is the managing authority for the Interreg Nord programme 2014-2020. The county council in Norrbotten also plays an important role when it comes to regional development issues and is, for example, part of the regional partnership for Norrbotten.

The similarities between the Norwegian and the Swedish political and administrative structures are favorable for actors involved in CBC. They make cooperation predictable and easy. According to our informants on both sides of the border, the minor administrative asymmetries that exist between Norway and Sweden had no negative effects on CBC.

1.5 Border infrastructure and VISA regimes

Border traffic and the infrastructure of border-crossing stations

Both countries are members of the Schengen area, which implies a simplified border-crossing, customs control and clearance procedures. The internal borders of Schengen countries can be crossed anywhere, provided that no goods are carried that must be declared. Therefore, it is allowed to cross the border from Sweden to Norway at any location. The Schengen membership implies the free movement of goods, services, capital and people between the 26 countries.

A permanent customs clearance office in the Kiruna/Narvik border area is located along the E10 road in Bjørnfjell, Norway (Tullverket, 2014). At the border crossing point, the border check duties are shared between the Norwegian and Swedish staff. There is a high level of cooperation between the border guards in the border region. The customs authorities have a 15 km operation area on the other country's territory and can act without prior approval or notification on the other country's territory (Tullverket, 2011).

The actual border crossing point does not provide any shopping facilities for visitors, but in Riksgränsen, located only 2 km from the border, there are restaurants, a hotel and a small grocery shop. In Abisko, a village located 40 km from the border on the Swedish side, there are a number of hotels, restaurants and a larger grocery shop.



Photo 2: Swedish-Norwegian border crossing at Bjørnfjell, Photo by Lisa Hörnström

The data used for analysing the border traffic is based on the border-crossing observations performed during the project. The border was observed for 2x30 minutes every day at different hours during four observation weeks, one for every season from 2012 to 2013⁴. All vehicles crossing the border were counted and categorized according to type (car, truck, van, minibus or bus) and

⁴ The observations were performed 15-21 October 2012, 1-7 March 2013, 3-9 June 2013 and 2-8 September 2013.

nationality (Swedish, Norwegian or other nationality). A total number of 1340 vehicles crossed the border during our observations (about two vehicles for every minute of observation) (see Table 5 below). The aim of the observations was to get an overall idea of the scope of border crossing activities rather than provide reliable statistical evidence. Looking at the total results of the observations, the number of vehicles with Norwegian licence plates crossing the border in each direction was about 4 times higher.

Table 5: Border-crossing observations at the Norwegian-Swedish border at Bjørnfjell. Source: EUBORDERREGIONS project, 2014

CROSSING BORDER (BOTH DIRECTION)	NOR license plate	SWE license plate	Other	Total
Car	834 (62 %)	168 (13 %)	55	1057 (79 %)
Truck, van, pick-up truck	102 (8 %)	40 (3 %)	132 (10 %)	274 (20 %)
Bus	2	5		7 (1 %)
Other	2			2
Total	940 (70 %)	213 (16 %)	187 (14 %)	1340 (100 %)
On foot	1			

Border regime, visa applications, border security aspects

There is no VISA regime between Norway and Sweden. Membership in the Schengen zone implies participating in the cooperation on common passport and border control, as well as several other issues within the EU policy area of freedom, security and justice. As part of the Schengen agreement, no passport control and no other type of border control are imposed at the internal borders. Road and rail passengers crossing the Swedish–Norwegian border no longer have their identity checked by border guards except for special security controls.

In exceptional cases when there is a serious threat to the state's internal security, the border controls may be re-erected with other Schengen countries for a short period. So, in 2011 Norway closed its border with Sweden for 18 hours following the Breivik massacre (Traynor, 2011).

When it comes to the current border and transport infrastructure, it is not considered to be sufficient for the development of CBC. It is especially investment in increasing and improving the capacity of the Iron Ore Line (Swedish: *Malmbanan*, Norwegian: *Malmbanen* - the railway between Narvik and Kiruna) that is crucial for growth and development in the whole border area. There is also an expressed need for improved public transport.

2. SOCIO-ECONOMIC RELATIONS AND FLOWS

2.1 Economic cross-border activities

Sweden and Norway have an intense exchange of both goods and services, and also of labor as people temporarily move or commute across the border to work. In an international comparison, the barriers to Swedish-Norwegian economic cooperation are relatively small, as both countries are members of the European Free Trade Association (EFTA) since the 1960s, and Norway is a part of the EU Internal Market through the EEA Agreement.

The countries have quite strong economic ties. Norway was Sweden's largest export market in 2013. Sweden's exports to Norway accounted for about 9.5% or SEK 117 billion of the total exports in 2013 (Ekonomifakta, 2013). Norway takes second place when it comes to the share of imports to Sweden (SEK 93 billion). Sweden is number 4 in Norway's exports (7%) and number 1 when it comes to imports to Norway (about 14%) (National Board of Trade, 2013). Economic cooperation in the mining industry in the border region is of crucial importance for the national economies, especially for the economy of Sweden. Moreover, a significant part of the overland transport of fish from Northern Norway to Europe passes through the border-crossing point at Bjørnfell.

Mining industry

Iron ore transported from the mines of Kiruna to the port of Narvik constitutes by far the most important economic flow in the border region. Kiruna hosts the world's largest and most modern underground iron ore mine. Iron ore production and trade has been and still is the main driver for economic development in the border region. LKAB was the 5th largest taxpayer in Sweden in 2013. At the same time costs of building the new levels and the production process itself are high. In 2013 LKAB opened a new (seventh) main level in the Kiruna mine at 1 365 metres below the ground. The cost of building this level has been calculated at SEK 12.4 billion. It constitutes the largest industrial investment in Sweden in modern times (LKAB, 2014). In addition to global wealth creation, iron ore mining creates jobs and fosters societal development in the local community.

Investments in production process, infrastructure etc. over the past decade have increased LKAB's capacity from 19.5 million tonnes of iron ore products in 2001 to the present 28 million tonnes per year. LKAB's objective is future annual deliveries of 35–40 million tons of finished iron ore products. Narvik harbour has a capacity of almost 20 million tons per year and is LKAB's biggest harbour and its most important link to the global iron ore market. The harbour is ice free all year round and is sufficiently deep for ocean-going ships. The facility Sila, located in the harbour is an automated unloading station with a high storage capacity. The specially designed ore wagons can be unloaded in just five seconds. This means that an ore train consisting of 68 wagons can be unloaded in only six minutes (LKAB, 2014).

LKAB continues to invest in harbour refurbishment in Narvik which will create a new transport system that includes ore handling, storage and ship loading facilities. The new harbour facility will become more flexible, robust and have a higher overall capacity. An upgrade is necessary to secure the planned production increase of about 35 percent. Shipping capacity will increase from a current 20 million tonnes to nearly 30 million tonnes per year. The second component of these investments

is a new sampling station, and a third will include new office buildings and a new control centre (LKAB, 2014).

The Canadian mining company Northland Resources opened a new iron ore mine in Pajala (Sweden) in 2012. The company has invested 900 million NOK to build new harbour facilities in Narvik to ensure the transport capacity for their iron ore products (Northland, 2011; Wolden, 2012). In 2014, falling world market prices on iron ore led to liquidity problems for Northland Resources and as a consequence the production in the mine was stopped in the beginning of October 2014. It is currently unclear if and how the mine will be opened again (Northland, 2014).

Tourism

Tourism is an important economic activity in the case study area, especially for the remote areas on the Swedish side of the border, such as Abisko, Björkliden and Riksgränsen. These areas are almost entirely dependent on tourism and Norwegian tourists are among the most important customers here. There were about 500 000 trips to Norrbotten from Norway in 2012, which is about 50% less than trips made to Norrbotten from Finland (Table 6). There were slightly fewer trips from Norway to Sweden in 2011 due to the strengthening of the Swedish krona against the euro and the Norwegian currency, as shopping in Sweden became slightly more expensive (HUI Research, 2012).

Abisko National Park attracts many tourists due to the well-known hiking trail of Kungsleden, which starts (or ends) at the Abisko Turiststation. Abisko Turiststation is run by the Swedish Tourist Association (STF) and hosts a youth hostel. The national park is known for its cross-country skiing tracks and other winter sports facilities. In summer, the tourists can enjoy hiking in the midnight sun, while in winter it is possible to see the Northern Lights. The Aurora sky station in Abisko offers the northern lights observations from November until the end of March. Riksgränsen is a famous ski resort close to the Norwegian border. In addition to skiing, it offers other activities, such as snowmobile tours, dog sled tours and Northern Lights tours. There are several accommodation establishments at Riksgränsen. One of the destinations that have put Kiruna on the map is the Ice Hotel in Jukkasjärvi, 20 km from Kiruna. The Ice Hotel was the first of its kind in the world. Also, the mining industry has become a tourist attraction in itself, as LKAB has started to arrange trips for tourists into the Kiruna mine. In Nordland, the main tourist attraction is Lofoten, a group of islands with attractive nature sceneries and excellent possibilities for fishing. The Narvik area is a popular destination for alpine skiing and other outdoor activities.

Cooperation in the field of tourism has so far been realized mainly through common marketing of tourist destinations and the development of joint travel packages. The tourism industry on the Swedish side is particularly interested in fostering cooperation with Norwegian counterparts, as Norwegian tourists account for a significant, if not the highest, share of tourists in Kiruna area. Moreover, it is quite common that tourists coming from outside the case study area visit both Kiruna and Narvik during their trip to discover the North, so there is a high potential for the development of joint cooperation activities.

Table 6: Million trips to Sweden per county visited and home country in 2012. Source: HUI Research 2013

	Norway	Finland	Denmark	Total
Stockholm	1,2	2,7	0,7	4,5
Skåne	0,2	0,1	2,4	2,7
Västragötaland	4,4	0,1	0,4	4,9

Värmland	3,0	0,0	0,0	3,0
Jämtland	1,0	0,0	0,0	1,0
Norrbottn county	0,5	1,0	0,1	1,7
Other counties	1,1	0,3	0,6	2,0
Country	11,4	4,2	4,2	19,8

Cross-border shopping

Cross-border shopping is quite intensive in the border area. Border shoppers consist primarily of Norwegian customers doing shopping in Sweden. Cross-border shopping makes a significant contribution to the local economy of the small Swedish settlements of Abisko, Björkliden and Riksgränsen. A survey from the Swedish Institute of Retail (HUI) reveals that Norwegians made approximately 9.5 million trips to Sweden in 2011, of which two thirds were day trips with shopping as the main purpose. The value of Norwegian cross-border shopping in Sweden as a whole is approximately SEK 25 billion per year (National Board of Trade, 2013).

The Norwegians are mainly buying food and items such as alcohol and tobacco, which are heavily taxed in Norway. Prices of food are about 33% higher in Norway than in Sweden. Meat products in particular are much more expensive. Other products that are highly popular among Norwegian cross-border shoppers are dairy products, fruit and vegetables, soft drinks and sweets. Sales of dairy products in the border trade are larger than the Swedish export of dairy products to Norway (National Board of Trade, 2013).

During the project, several observations were made regarding the share of cars with Norwegian and Swedish license plates at the parking lots in Kiruna and Narvik. In total, there were 4 weeks of observations during 2012-2013, coinciding with the period of border-crossing observations. The observations were made once a day and the time varied from dawn to evening. The data collected is not sufficient to draw reliable conclusions but it is possible to use the observations to describe some general trends. The observations showed that, out of all vehicles at the parking lots by the ICA food store and at the central parking lot in Kiruna (2951 vehicles in total), 77 or 2.5% had Norwegian license plates. At the same time, there were only 2 (sic.) out of 962 vehicles with Swedish license plates at the central parking lot in Narvik (about 0.2 %). The observations provide support to the trend described above concerning the border shopping patterns in the case study area, showing that it is mainly Norwegians who are traveling to Sweden to do shopping, and not vice versa.

Space research and related activities

Although Kiruna does not have its own institute of higher education, it has top expertise in the field of space research. New companies have been established around Rymdhuset (Space House). Furthermore, there is an Institute of Space Physics and the European Space Agency (ESA) research station located in Kiruna. In addition, the Esrange Space Center controls a number of European satellites.

Another initiative taken is Spaceport Sweden, aiming at establishing a commercial human spaceflight in Kiruna (Spaceport Sweden, 2014). The ambition is to enhance the development of a new technique and thus a new industry by providing facilities for training astronauts. The goal is also to establish a Science Center, which could sell, for example, Northern Lights flights and Parabolic flights.

Space research and related activities are seen as having potential to become one of the key industries in Kiruna in addition to mining. It is also an area where common interests between Kiruna and Narvik could intersect and the CBC could be established.

Cross-border commuting and labour market

According to the Agreement Concerning a Common Nordic Labour Market, which came into force in 1983, citizens of Sweden and Norway, as well as other Nordic countries, do not need to apply for work- or residency permit to study, work or live in one of the Nordic countries (Norden, 2014). Therefore there are no restrictions regarding migration and labour mobility between Sweden and Norway.

Temporary moves to the neighbouring country and labour commutes across the border are important parts of the commercial relations between Sweden and Norway. The Narvik area has a more attractive labour market in comparison to Kiruna, since the salaries in Norway are significantly higher. A wider labour market opens up opportunities to get jobs, which is especially attractive for young people in Norrbotten, who might take temporary jobs at hotels and in service sector in Narvik. Thus, migration and cross-border labour mobility are mainly taking place in the Sweden-to-Norway direction.

There is still a challenge related to skilled people moving away from the border region to i.e. Stockholm and Oslo. As mentioned earlier, the border region may soon face a shortage of employees within many professions and industries. This primarily refers to employees in health and social care sector, education, but also people with engineering and technical skills. The KINA labour market may become attractive to people from other parts of the world. Already today there is a significant immigration to the Norwegian part of the border area from the eastern and southern EU member states.

According to StatNord database, there were 3 persons who commuted from Narvik to work in Sweden and 84 persons who commuted from Kiruna to work in Norway in 2009 (StatNord, 2014). In addition to this there are people who temporarily move to Norway or Sweden and settle there because of work. Everyday commuting between the two border municipalities is hardly conceivable due to the distance, as well as the poor road infrastructure and the lack of frequent public transport services. Currently, it is impossible to make a tour-retour day trip from Kiruna to Narvik by train. A traveller has to stay overnight or travel one way by car or bus.

2.2 Social and institutional cross-border co-operation

There are a number of more or less institutionalised CBC projects within the border region. In the following section, we will outline examples of CBC related to business, infrastructure, culture and language. The examples highlighted are mostly projects financed through different cross-border EU programmes, although local and regional initiatives financed through other means are also included. Most of the EU-funded projects are financed through the Interreg IVA Nord programme 2007-2013. An overview of the Interreg IVA Nord projects 2007-2013 with the involvement of partners from Kiruna and Narvik and/or organizations from Norrbotten and Nordland counties is presented in Table 7: Cooperation in business and infrastructure

East West Arena (EWA) is a cooperation project between the development companies of Progressum in Kiruna, Expandum in Gällivare and Futurum in Narvik. The aim of EWA is to enhance cooperation between North Sweden and North Norway when it comes to business development. In October 2012, the first EWA conference was arranged in Narvik. During the conference, a representative of the Norwegian petroleum company Statoil talked about the company's current investments in North Norway. There were procurements for the assignments in North Norway, but the small companies did not have the resources to deal with it. The second EWA conference was arranged in Gällivare and Kiruna in November 2013. The three companies (Futurum, Progressum and Expandum) have been cooperating closely with each other for several years. Their cooperation has taken place through several Interreg projects, some of which have involved various other private and public actors on both sides of the border.

The Nordic Business Link 2.0 is a project co-financed by the Interreg IVA Nord programme 2007-2013. The Norrbotten Chamber of Commerce is the project owner and steers and coordinates the project. The aim of the project is to develop business and entrepreneurship in the region and make companies more aware of the opportunities related to east-west cooperation.

Some of the Interreg IVA Nord 2007-2013 projects addressed entrepreneurship through education. The *border crossing entrepreneurship* project supported cooperation between trade, industry and school for creating incentives for the younger generation to stay in the area, while *InnoPreneurship 21* aimed at strengthening entrepreneurship and innovation through education. In the field of tourism, the *North Calotte network for Sustainable Tourism Development* project aimed at improving collaboration among the tourism businesses in Norrbotten and Nordland counties.

A number of Interreg IVA Nord projects 2007-2013 have been introduced in order to promote business and economic development related to reindeer husbandry, especially focusing on young people and women within the Sami community (Interreg IVA Nord, 2014b). Examples of such projects are *Business development in the borderless region Sápmi* and *Indigenous Entrepreneurship*, where the SSR (Swedish Sami Association) is the lead partner organisation, and *Ambassadors of reindeer herding*, led by the Swedish Sami parliament.

Another Interreg IVA North project where Nordland and Norrbotten have been involved was the *Development of Logistics in The North Calotte Region*. This project involved primary industries and public administrations in collaboration. The objective of the project was to improve conditions for transportation by developing concrete infrastructural and logistical solutions for, above all, east-west transportation. In the vision of the project, the new North East West corridor will be created and many containers will be shipped in the direction U.S.-Narvik-Haparanda/Tornio-Russia-China/Korea in the future. In addition, the goal of the project is that the Ore Railway/Ofoten Line will be dual-track. The need for overall increase in rail freight and passenger traffic was also emphasized (Logistik Nordkalotten, 2014).

HRS Miljø is a waste management company owned by several municipalities on the Norwegian side of the border. Tekniska Verken is an energy-producing enterprise owned by Kiruna municipality in Sweden. Since 1998, HRS Miljø has been delivering waste by train to Tekniska Verken, which transforms it into energy for house warming. Today, 40 000 tons of waste (60 % of all waste

“produced” by HRS Miljø) is exported every year across the border. The waste trade between the two companies has been both economically viable and environmentally friendly.

From 2009 to 2010, HRS and Tekniska Verken were involved in an Interreg IVA Nord project called *Development of an Internal Waste Market in the North Calotte*. The purpose of this project was to identify the conditions for an integrated waste logistical market for the North Calotte - independent of national borders. The project focused on economic as well as environmental challenges for the development of a transnational waste market in the region. In 2013, during *East-West Arena*, HRS and Tekniska Verken received the prestigious East-West Award for their long and successful cooperation.

The Ice hotel in Jukkasjärvi outside Kiruna (established 1990) is perhaps the most well-known tourist site in the border region. The Ice hotel has had many cooperation projects with actors in Nordland, especially in Lofoten and Vesterålen. The Ice hotel has developed common tour packages for visitors together with Norwegian tourist companies for more than 25 years. From the point of view of the Ice hotel, CBC is only positive since, “*if you can’t beat them, join them*”. It is, according to representatives of the hotel, possible to combine the attractions of the Kiruna-Narvik border-region, including both the Ice hotel in Jukkasjärvi, the national park in Abisko and the nature and scenery in North Norway.

The tourist companies in Riksgränsen are currently not involved in any CBC projects with Norwegian partners, but this is not due to a lack of interest from the tourism industry at Riksgränsen. Rather, they wish to cooperate more, but feel that there is no desire within Kiruna municipality or the Norrbotten county administrative board to support them. Kiruna municipality is, according to representatives of the Riksgränsen hotel, concerned by the moving of the town and tends to neglect the development in the other parts of the municipality.

Co-operation in culture, language and education

The Interreg IVA Nord programme 2007-2013 had a sub-programme named Sápmi focusing on projects within the Sami community. The sub-programme has its own steering committee and secretariat, both situated at the Sami Parliament in Kiruna. Its main objective is to develop Sami culture, trade and industry by focusing on mutual solutions for development of what is unique to the Sami culture (Interreg IVA Nord, 2014a). A large number of CBC projects financed by this sub-programme focus on encouraging and developing the use of the Sami languages. The focus of these projects is often to revitalize the use of Sami languages by, for example, providing better conditions for day care and schools to use the language in their activities (e.g. development of joint learning aids, materials, courses, media sources) (Interreg IVA Nord, 2014b). The sub-programme also supported network-building measures which promote the Sami cultural activities, traditional Sami skills and matters pertaining to native peoples.

New theatre in the North Calotte Area is one example of a project run by the Sami theatre in Kiruna. The project aims to create better conditions for theatre in general and playwrights in particular within the Sápmi community. The Sami theatre is also involved in a large theatre project involving the Opera in Umeå (Norrländsoperan), the Royal Dramatic Theatre in Stockholm and the National Theatre of the indigenous Sami people in Norway. Saemesth dle! (SAMS) is one of the examples of

projects run by the County Government of Nordland and the local Sami education authority. The aim of the project is to increase the status of the endangered South Sami language in the region by encouraging young people to acquire teacher education with a specialization in South Sami language, as well as to increase the popularity of the language in general (Interreg IVA Nord, 2014b).

On the Norwegian side there is a high interest in ‘rallar culture’.⁵ There has been close contact and cooperation across the border between the Association Rallarfesten in Kiruna and Vinterfestuka (winter and summer folk festival) in Narvik, also including other local actors. Several festivals have been organized jointly promoting ‘rallar culture’. Association Rallarfesten and Vinterfestuka in Narvik tried to apply for EU funding but found it too bureaucratic and highly demanding. Today, the cooperation is based on individual initiatives.

The Norwegian municipality of Tysfjord (south of Narvik) and the Swedish municipality of Gällivare (south of Kiruna) have a long tradition of cross-border cooperation. This has been very much due to their common Lule Sami history, culture and language. In recent years the cooperation has taken place within the framework of Interreg. Since 1999, the two municipalities have cooperated in four different Interreg projects which have covered a wide range of areas, including library cooperation, documentation of regional history, cross-border logistics, industry and business development, and tourism. One of the most important practical outcomes of these projects has been the establishment of the 65 kilometer long heritage hiking trail *Greenseleden* (“the border trail”) connecting the two municipalities. The trail offers local residents and visitors an insight into the rich culture and nature of the area. *Greenseleden* has become a positive symbol for all CBC taking place in the region. The cooperation between Tysfjord and Gällivare demonstrates the positive role the transnational Sami population plays in Nordic CBC in general. It is also an excellent example of how EU-supported CBC can have an important local impact in the region.

Table 7: Cross-border projects involving partners from Kiruna and Narvik and/or organizations from Norrbotten and Nordland financed by the Interreg IV A Nord programme 2007-2013. The partners from Norrbotten and Nordland counties are highlighted in ‘partners’ column. Source: (Interreg IVA Nord 2014b).

Project name	Partners	Theme
Priority 1. TRADE AND INDUSTRY DEVELOPMENT		
Center of Expertise for Energy in Cold Climate	Luleå University of Technology, Vinn, Narvik College	Innovation, research and business development
Nordic Business Link 2.0	The Norrbotten Chamber of Commerce, Business Oulu, Chamber of Commerce in Troms region, Handelskammare Service AC län AB, Bedriftskompetanse AS, Hammerfest Naeringsforening, Narvik Region Business Association	Business development

⁵ “Rallar-” refers to railway and mine workers

(NRNF)		
Barents Entrepreneur Advice	Länsipohjan Yrittäjät ry, Bedriftsförbundet, avd Nord-Norge, Företagarna Norrbotten Service AB	business networking and development
CIFA –Connect Interreg North Business Accelerator	CONNECT North Service Ltd, CONNECT North Norway, CONNECT North business network (Sweden), Origo Nord AS, ProBarents AS, Kunnskapsparken Nord AS, Narvik Science Park, Vesterålen Grundehage AS, Kunnskapsparken Bodø AS	Business development
SmaE -Sustainable Manufacturing and Engineering	Luleå University of Technology , Mellersta Österbottens yrkeshögskola / CENTRIA forskning och utveckling, Narvik College	Business development, support to SMEs
COBS	Luleå University of Technology , Eistec AB, Vivision Roller, Narvik Science Park	Technological development (conveyor belt roller)
Priority 2. RESEARCH, DEVELOPMENT AND EDUCATION		
Border crossing entrepreneurship	Municipality of Arjeplog, Municipality of Arvidsjaur, Argentis AB, PKK Indre Salten, Municipality of Saltdal, Municipality of Beiarn, Municipality of Sörfold, Municipality of Steigen, Municipality of Fauske, Young entrepreneurship in Nordland, Young entrepreneurship in Norrbotten, Bodø University College, Luleå University of Technology	Strengthening entrepreneurship
InnoPreneurship	Kemi-Tornio University of Applied Sciences, Luleå University of Technology, Bodø University College	Education, entrepreneurship
Digital Integrated Manufacturing (DIM)	Central Ostrobothnia Polytechnic/CENTRIA research and development, Luleå University of Technology, Narvik College	Strengthening SMEs; Research and development (IT)
Meet, Play and Learn-social game based learning tool for children with diabetes - phase 1	Northern research Institute Tromsø, Luleå University of Technology , Rovaniemi University of Applied Sciences, Norwegian Centre for Telemedicine, Nordland Hospital	Research and development, healthcare

Increasing Energy Efficiency in Buildings (IEEB)	Oulu University of Applied Sciences, Luleå University of Technology , Umeå University, City of Oulu, Building Supervision Office, NORUT Narvik , Betong & Entreprenörssenteret, Norcem AS, PRT, NCC Rakennus Oy, SRV Kiiteistöt Oy, Lappli Talot Oy, Kastelli Talot Oy, Kannustalo Oy, Kontiotuote Oy, Puutuomela Oy	Technological development, networking, energy efficiency in buildings
InnoPreneurship 21	Kemi–Tornio University of Applied Sciences), Luleå University of Technology , University of Oulu, University of Nordland	Education Entrepreneurship
RE -COLL	Luleå University of Technology , University of Lapland, University of Oulu, University of Nordland , University of Tromsø	Research
Priority 3. REGIONAL FUNCTIONALITY AND IDENTITY		
Refuse transport in the North Calotte area	Tekniska Verken AB (Kiruna) , Kiruna Bilfrakt AB , Hålogaland Ressurselskap IKS (Narvik)	Efficient transport system
North Calotte transports	County Administrative Board of Norrbotten , Regional Council of Lapland, Regional Council of Northern Ostrobothnia, the National Rail Administration, Port of Narvik , Futurum	Sustainable transport
Development of an Internal Waste Market In the North Calotte	Tekniska Verken AB (Kiruna) , Perämeren Jätenhuolto Oy, Lapin Jätenhuolto Kuntayhtymä, Napapiirin Residuum Oy, Hålogaland Ressurselskap IKS (Narvik)	logistics, integrated waste management
Northern Network climate change	Municipality of Jokkmokk , Norrbottens Energikontor AB (Nenet) , Oulukaaren kuntayhtymä (Oulu Arc Subregion), VINN , University of Troms, University of Lapland	Regional development, climate change
Priority 4. SUB-PROGRAMME SÁPMI - BORDERLESS DEVELOPMENT		
Saemesth dle! (SamS)	Sami local education authority in Jokkmokk (Sameskolstyrelsen) , County Government of Nordland	Sami language and culture, education
Before and over the borders—long-term changes in the Sami society	Åjtte - Swedish Mountain and Sami Museum (Jokkmokk) , Årran–lulesamiskt centrum, Centrum för samisk forskning, Luleå University of Technology , University of Nordland	Sami culture, research

SÁFÁ 2	The Sami Parliament in Finland, the Sami Parliament in Sweden and the Sami Parliament in Norway	Sami language
Business development in the borderless region Sápmi	Swedish Sami Association, Harstad University College	Business development
Indigenous Entrepreneurship	Swedish Sami Association, Suoma Sámi Guovddassearvi SSG, Norwegian Sami National Association, International Barents secretariat	entrepreneurship
Ambassadors of reindeer herding	The Sami Parliament in Sweden , Suoma Boazosámit rs, International Centre for Reindeer Husbandry	Reindeer entrepreneurship, leadership

2.3 Participation and networks in CBC

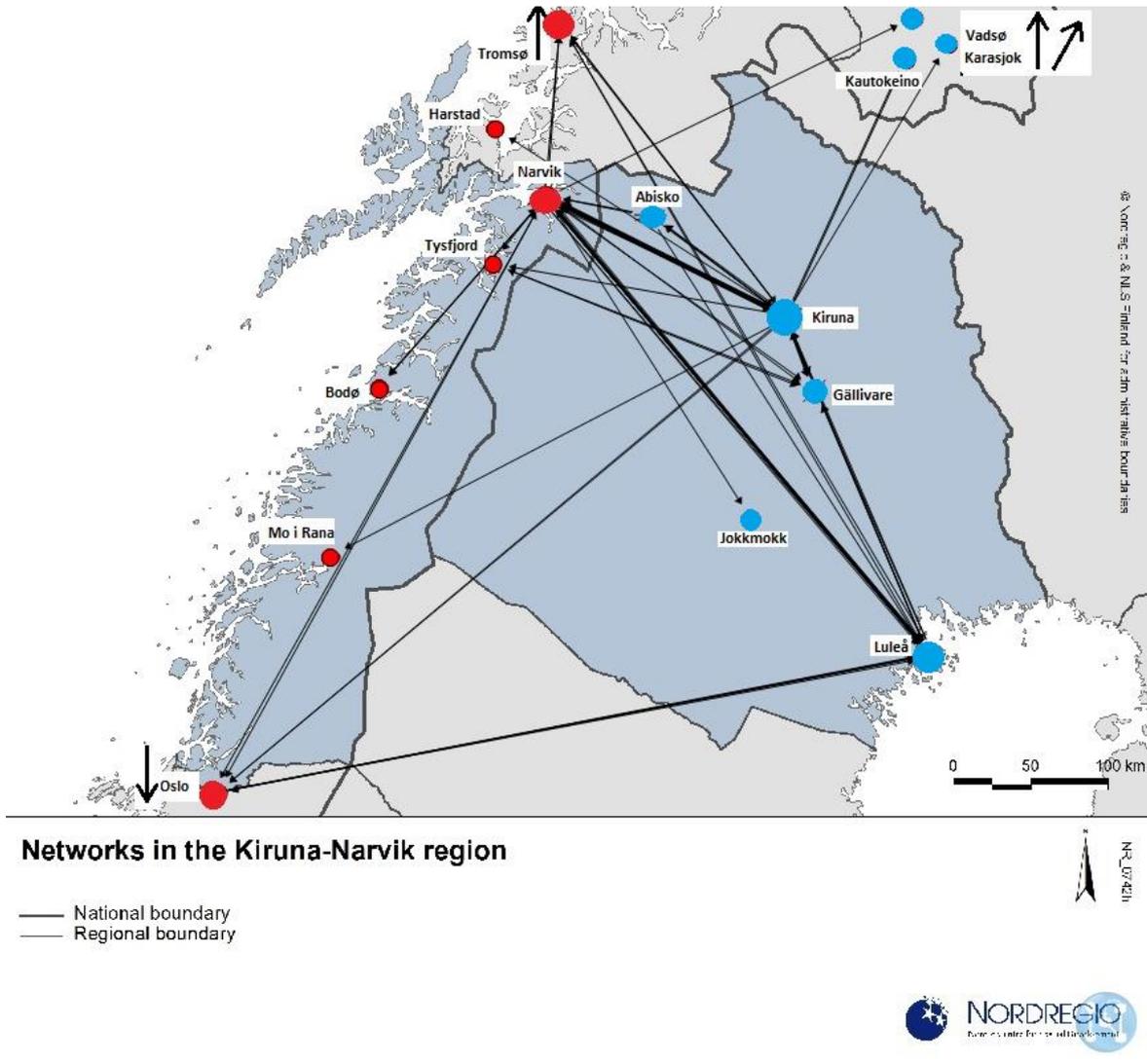
A network analysis was carried out during the project. The organizations interviewed were asked which other organizations they cooperate with or have cooperated with in CBC projects. Based on the answers, it was possible to map a network of organizations on both sides of the border and see the links between them. In addition to the initial 43 organizations, we could now add 39 organizations that were mentioned as CBC partners. Table 8 presents an overview of the organizations of the informants that were interviewed in the KINA area.

Table 8: Characteristics of the organizations interviewed in Kiruna-Narvik area

Characteristics of the organizations interviewed in Kiruna-Narvik area	
Total number of organizations interviewed	43 organizations involved in CBC from 2007-2013
Territorial dimension (nr of organizations)	Norway - 21 (17 Narvik; 1 Tysfjord; 1 Gratangen; 1 Tromsø; 1 Oslo) Sweden - 22 (16 Kiruna; 2 Luleå; 2 Abisko; 2 Gällivare)
Number of organizations by sector	15 public; 23 private; 5 Non-profit, civil
Field of activity	Governance/administration/management – 11 Commerce/business/sales/production/service/consulting/construction/development/transportation etc. - 18 Health care/social care and assistance - 0 Primary and/or secondary or general or popular education - 0 Culture/sport/leisure/religion - 9 Research and innovation and/or higher education - 5

Map 8 below illustrates a network of organizations in the border region, including those involved in CBC activities. The nodes represent municipalities involved in CBC (blue for Swedish and red for Norwegian). It shows the linkages between the municipalities in the case study area based on organizations located in them engaged in cooperation activities. Notice that the actual geographic position of some municipalities is outside the map area (Tromsø, Vadsø, Oslo and Karasjok). Map 8 demonstrates that the Narvik, Kiruna and Luleå municipalities have the largest number of stakeholders engaged in CBC.

Some stakeholders have direct CBC with only one partner on the other side of the border, while others are involved in cooperation with several partners or in networks of partners. Among the most active actors on the Swedish side are LKAB, Progressum, Företagarna Kiruna, Expandum, Luleå University of Technology and Almi (public organisation for business support and financing). The mining company LKAB has many subcontractors in the Kiruna area and partners in the Narvik area. Progressum, Företagarna Kiruna and Expandum are development companies and business support networks which are aiming to enhance development of competitive companies and an attractive society in Norrbotten, particularly in Kiruna and Gällivare municipalities. Therefore the majority of the stakeholders in their network are located on the Swedish side of the border. On the Norwegian side of the border, Futurum, Forskningsparken, Bedriftskompetanse and Destination Narvik are among the stakeholders with the most extensive cooperation networks across the Swedish border. Futurum is, like Progressum in Gällivare and Expandum in Kiruna, a municipal development company, and has extensive cooperation with the former two. We see that the development companies play a crucial role in the cross-border networks in the region. Forskningsparken and Bedriftskompetanse are both involved in business development and cooperate with Swedish partners within this field.



Map 8: A network of organizations in the border region, including those involved in CBC activities. Source: Nordregio, 2014.

Figure 3 illustrates linkages between the organizations in the case study area engaged in CBC projects and cooperation at a local level based on their country of belonging. The nodes represent organizations involved in CBC (blue for Swedish and red for Norwegian).

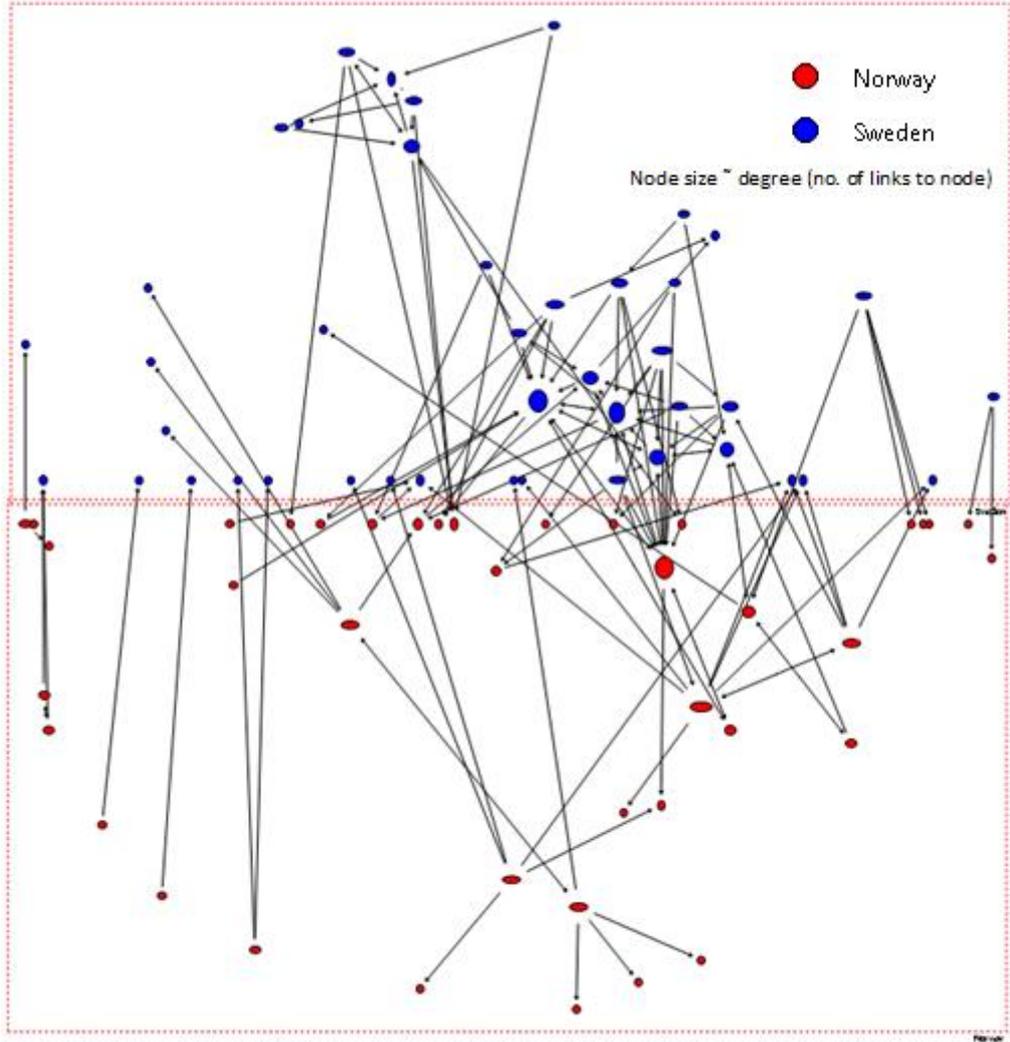


Figure 3: Linkages between the organizations in the case study area engaged in CBC projects and cooperation at a local level based on the country of belonging (Sweden and Norway). Source: Nordregio, 2014

Looking at the cooperation between Swedish and Norwegian stakeholders in the case study area by sector, one can notice a dominant role of public organizations, followed by the private sector (see Figure 4). It is not easy to conclude whether this is the overall picture or just the result of a somewhat biased selection of organizations (the initial aim was to ensure a balanced selection of sectors and types of organizations). If this corresponds to the real picture we can, however, conclude that CBC in the area is dominated by the public sector, but that there is space both for private and public actors in cross-border network building. The number of NGOs is, however, relatively small. The reason for this may be that NGOs tend to be rather small compared to the private and public organizations in the area, generally lacking the strength to apply for or administer EU funding.

When we look at cross-sectorial cooperation in the border region (see Figure 4), we notice that NGOs generally have more linkages with the public sector than the private. Public–public CBC is the most common type, followed by private–private and public–private cooperation.

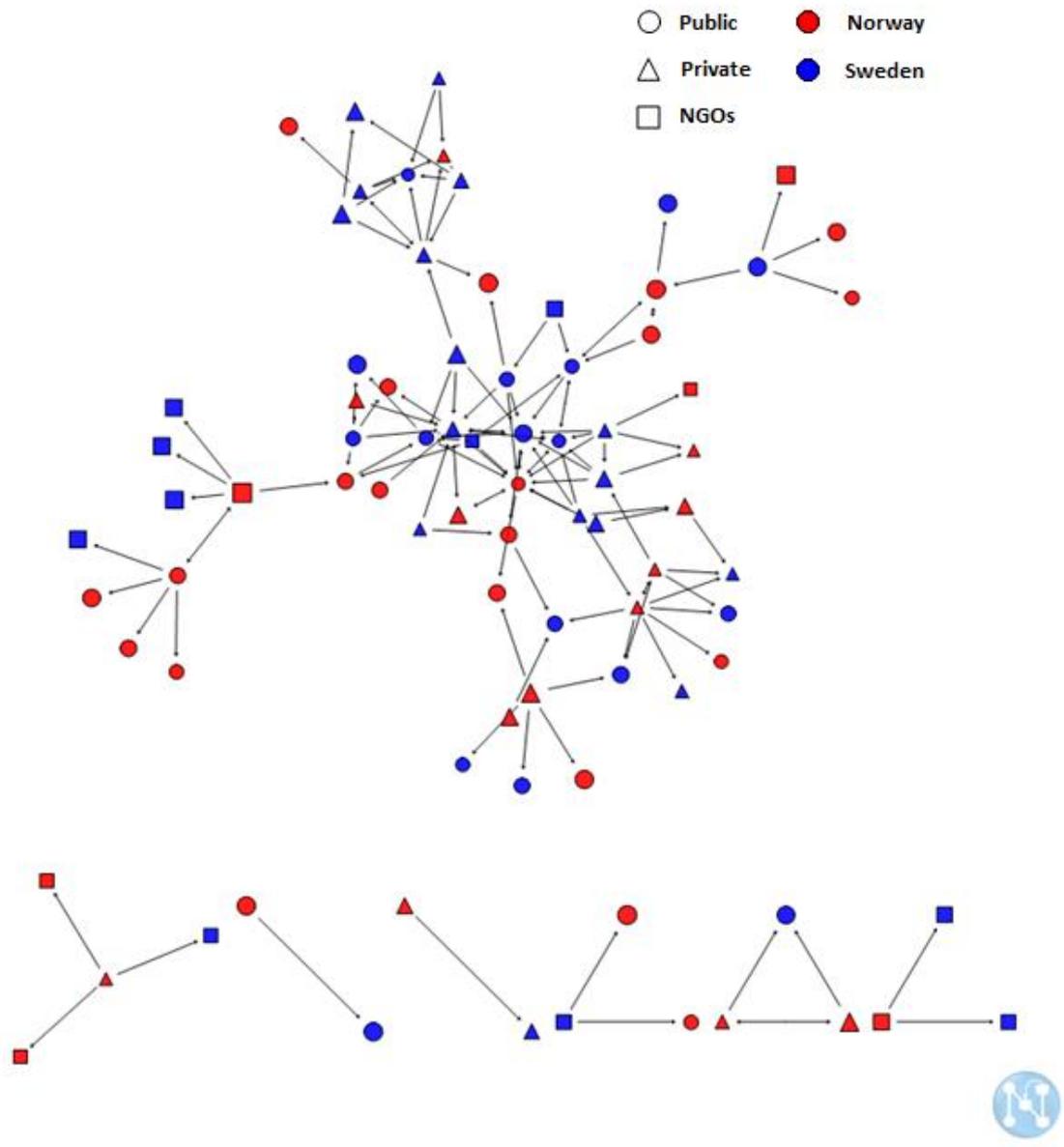


Figure 4: Network of linkages between organizations involved in cooperation, including cross-border, and their distribution by country (colour) and by legal sector (shape). Source: Nordregio, 2014.

Figure 5 shows in more detail which sub-sectors are involved in CBC according to the fields of activity and the territorial extent. In terms of geographical scope, most of the organizations operate at the local level, followed by the regional level. The most common fields of activities of the organizations at the local level are governance, administration and management, as well as culture, sports and religion. These fields of activities are also most common for the organizations operating at the regional level, in addition to commerce and business-related activities. Only a handful of organizations are operating at the national and international levels. In terms of the scope of activities of those organizations, the majority are within the commerce and business fields.

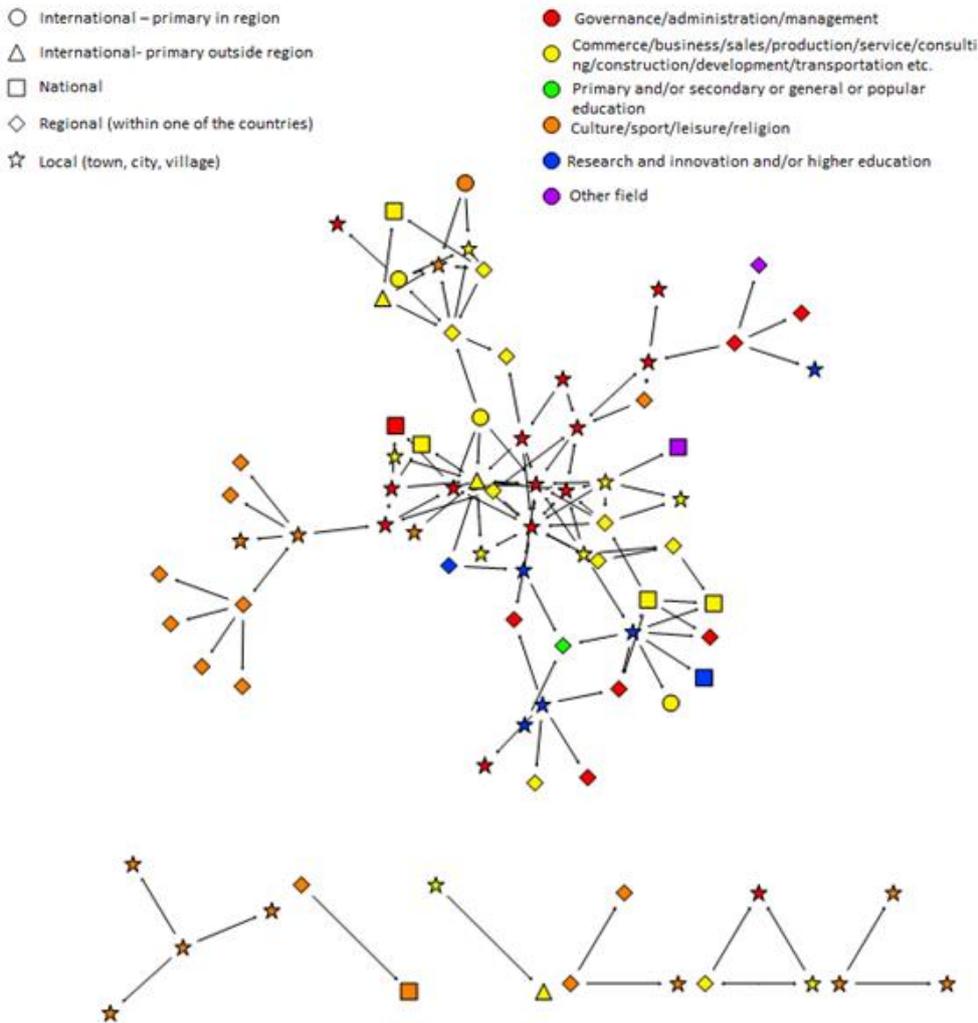


Figure 5: Network of linkages between organizations involved in cooperation, including cross-border, and their distribution by main fields of activity (colour) and by territorial scope of the organisations (shape). Source: Nordregio 2014.

2.4 Determinants of and motivations for cross-border cooperation

In general, for Swedish companies, a better economy and a stronger currency in Norway are among the motivations for entering the Norwegian market. Companies usually get better pay for their work in Norway than in Sweden. The cooperation between Sweden and Norway is facilitated by the fact that both countries have been members of the European Free Trade Association (EFTA) for more than 50 years. Although Norway is not an EU member state, it is part of the EU Internal Market through the Agreement on the European Economic Area (EEA). The existing EEA Agreement facilitates trade with the EU member states by allowing the inclusion of EU legislation covering the four freedoms — the free movement of goods, services, persons and capital — throughout the 31 EEA States (EFTA 2014). Agricultural and fisheries policies are, however, excluded from the Agreement (Norway Mission to the EU, 2011).

At the same time, since Norway is not in the EU Customs Union, trade between Sweden and Norway is complicated by certain administrative procedures, such as export and import declarations, tax payments and in some cases custom fees (National Board of Trade, 2013). In a survey made by the National Board of Trade in 2009, Swedish companies were asked which country was particularly problematic to export to. Norway was at second place after Russia according to the surveyed companies. The answers were mainly received from the SMEs involved in trade and commerce activities. Among the barriers for trade with Norway emphasised by the Swedish companies were customs-related procedures and tariffs. Slow customs clearance, time consuming documentation, problems with tax and protectionist trade policies were highlighted by several companies (National Board of Trade, 2013).

Poor development of infrastructure in the Kiruna-Narvik border area was identified as an important barrier for cooperation, affecting economic, social and institutional cooperation. The capacity of the Iron Ore Line is planned to be enhanced in the future in order to accommodate increasing freight (from 30 tons to 40 tons). LKAB have signalled the need for upgrading the Ofoten line to double tracks by 2020. The modernisation of a shipping facility in Narvik is another ongoing project, where LKAB has already invested about 1 billion SEK (Regeringen, 2008). The lack of fast and frequent public transport connections between the two towns is among the barriers for development of CBC among the SMEs, as small companies often lack time and personnel resources and therefore choose not to travel long distances for meetings.

Cooperation between Norway and Sweden is facilitated by a lack of historical disparities inside and alongside the border and similarities in language and culture. In addition, the existing EEA Agreement between Norway and the EU member states facilitates cooperation in education, research, environmental protection, social policy, statistics and consumer protection. At the same time it has often been brought up in the interviews that the cultural differences when it comes to the working environment are bigger than one might think. Also, despite the similarities in languages, the communication still requires extra effort.

The interviewed actors also noted that the interest in cooperation exists from both sides, but it is often challenging to find someone willing to take initiative and become a lead partner (in the case of Interreg projects). For any type of social cooperation, the presence of engaged and active individuals willing to take a lead is a prerequisite for successful cooperation. Personal contacts play a highly important role in this regard and should not be underestimated.

As in the case of economic cooperation, long distances between the towns and long travel times are perceived as significant barriers to social CBC. Arranging face-to-face meetings with partners on the other side of the border is a very time-consuming process.

3. REGIONAL DEVELOPMENT AND STRATEGIES FOR CO-OPERATION

3.1 Border location

Overall political engagement and will to initiate and support CBC have been weak. There are no common development strategies in the border region, but this was not perceived as a barrier for cooperation by interviewed actors. Instead, they argued that there is no need for such strategy.

The border as a barrier or a bridge?

Generally speaking, a very open or 'soft' border, as is the case between Norway and Sweden, decreases the border's importance as a factor for economic, social and political development in the region. This makes the border region less exceptional here than in other parts of Europe where the border is deeply consequential.

The border is perceived as a bridge rather than a barrier. This is because of a long tradition of economic, social and political cooperation, and more precisely the Nordic Passport Union established in 1958, the customs cooperation agreement between Sweden and Norway signed in 1959 and the common Nordic labour-market established in 1983. The language does not impose an obstacle since Swedish and Norwegian are closely related and mutually intelligible. Sweden and Norway also have many common cultural characteristics and a shared history. However, as mentioned before there are still differences in cultural and administrative structures in Sweden and Norway that might impose more of an obstacle than expected.

More concretely speaking, the border might to some extent make up a barrier. The border between Norway and Sweden is 1630 km and, especially on the northern part of the border, the areas on both sides are very sparsely populated. There are only a few small villages (ski resorts) and thus very few inhabitants living at close proximity to the border. In addition, the Scandinavian mountains make up a natural barrier and also cause severe weather conditions in winter that may be an obstacle when crossing the border. In addition, the lack of infrastructure may pose obstacles to cooperation. There is only one main road (E10) and one railway passing the border. The distance between Kiruna and Narvik is 178 km. There is only one crossing-point on this part of the border between Norway and Sweden.

As was described in chapter 2, there are intense connections between the two main towns Narvik and Kiruna due to the iron ore mine in Kiruna and the railway. The iron ore is transported from Kiruna by train to Narvik where it is stored on ships for further transport. Recently, the harbour in Narvik was modernized and the storage capacity increased from 16 million tons to 19 million tons a year. The border has had minor significance for starting up and developing an industrial partnership between the two towns. The territorial specificities (iron ore fields and access to the ice free port) have instead been among the preconditions for developing economic cooperation. The symbiosis between iron ore production and trade is far more affected by the overall situation in the global market, fluctuations in prices and the demand for this natural resource rather than proximity to the border.

Lately, higher prices and a strong Norwegian currency have pushed Norwegians to cross the border to shop on the Swedish side. This 'border-shopping' is perhaps most apparent in the ski and mountain hiking resorts Abisko, Björkliden and Riksgränsen. It is common for people living in the Narvik region (and in Northern Norway as a whole) to spend their summer vacations in Kiruna or in Luleå, Piteå and Boden (towns on the coast of the Bothnian bay).

The Sami community also function as a connector in the border region. For many Sami, the northern parts of Norway, Sweden, Finland and northwest Russia are the same region regardless of the national borders. Reindeer herding, which is a traditional livelihood of the Sami people and a cornerstone of the Sami culture, requires large grazing areas, which often stretch across national borders. Traditional Sami herders follow the reindeer's migration patterns, which are based on the animals' own natural cycles. The reindeer are herded in different areas throughout the year in search of adequate nutrition. Several conventions have gradually limited Sami trans-border reindeer husbandry, such as the Lapp Codicil of 1751 and the Karlstad Convention of 1905. The Sami community cooperate across national borders as they are united by the culture and traditions, have a strong identity and feeling of belonging to the North, regardless of their residence in Norway, Sweden or Finland (or northwest Russia). Today, the Sami institutions and organisations have broad contact networks and extensive experience of international cooperation and CBC, which are of great value for promoting the interests of indigenous societies in the High North (Sonniksen).

Despite the fact that Norway and Sweden are close in terms of culture and language, and also that there are strong connections between Kiruna and Narvik especially due to the iron ore mining in the area, Kiruna has in some ways closer connections to North Finland. This is due to historical ties; many people in Kiruna have Finnish roots as they or their parents (and/or grand-parents) moved from *Tornedalen*, the Swedish-Finnish border area, to Kiruna when the mining industry was booming in the 1960s. Interviews show that it is also perceived as easier to cooperate with Finland due to the fact that both Sweden and Finland are EU members. In addition, a similar industrial structure dominated by mining and forestry on both sides of the border opens up opportunities for directed contact and cooperation. Another explanation might be that small towns around the Finnish-Swedish border are closer to one another than Kiruna and Narvik. For example, Pajala in Sweden and Kolari in Finland have even gone so far as to have a common municipal assembly meeting with regard to the mining industry. Other questions that they work with are environmental questions, common recruiting and attractive environments. Actors in Kiruna also mentioned in the interviews that the mentality and culture in Kiruna is closer to northern Finland and northern Norway rather than southern Sweden due to similar lifestyle, climatic conditions, settlement structure etc.

The main positive and negative aspects of border location

In general, the border location is perceived as something positive, as it provides the region with some opportunities for development and for economic, cultural and institutional cross-border cooperation. The border location offers economic opportunities for various actors who are able to take advantage of the economic development on the other side of the border. Another positive aspect of the border location is the easy access to the neighboring country's services and goods. From the Norwegian point of view, the most important positive aspect of the border location is the closeness to the iron ore mines in Sweden. From the Swedish point of view, the most positive aspect is the proximity to the Norwegian harbors.

A booming mining industry in Kiruna and a strong petroleum industry in Northern Norway has meant increasing demand for labor in the whole border region. It also means that companies on both sides look for people with the right competences and skills on the other side of the border. This development is perceived as positive since it is a sign of favorable economic development in the region, but it also leads to higher salaries and thus higher costs for labour which might be a challenge for companies. On the Norwegian side, there is a need for key competences that can be found on the Swedish side, but Norwegian companies need to raise the awareness of which key competences are needed from the Swedish side. The border location provides a wider labour-market which gives job opportunities for young people throughout the region. There is also strong potential for the diffusion of innovation across the border. The Swedish side can help the Norwegians to develop their mining industry, and, in exchange, Sweden can learn more about the developments within oil and gas technology from the Norwegians. In addition, together with the Norwegians, knowledge related to wind power can be developed.

The border location is also perceived as positive for tourism companies, especially on the Swedish side. There is increasing marketing towards Norway by tourist companies in Kiruna. Kiruna hosts a lot of Norwegian tourists, especially during the summer; this mainly relates to the exchange rate which gives Norwegian guests good value for their money on the Swedish side of the border. The (relative) closeness to the border makes many Norwegians think that it is worth going to Kiruna to shop. The border location also create opportunities for tourist companies to cooperate and to provide their customers ready-made packages combining visits in Kiruna with visits in the surroundings of Narvik. Skiing and hiking tourism are crucial to the villages closest to the border. Because of the peripheral location of the Swedish ski resorts of Riksgränsen, Abisko and Björkliden, the proximity to Norway is important as it ensures a steady flow of Norwegian guests throughout the year. Norwegians come to Riksgränsen, the village on the Swedish side closest to the border, for the sport opportunities and to buy low-priced products. The flow also goes in the opposite direction: people living and working in Riksgränsen cross the border to buy products and use services in Narvik, since it is the closest city. There are also several persons that are employed in Riksgränsen during the winter who take jobs in Norway during the summer.

Overall, there are largely positive perceptions of the border location. There might, however, also be some negative perceptions of the proximity to the border. Since the Norwegian currency is strong and Norwegians get value for their money in Sweden, many apartments, houses and summer homes in the area have been bought by Norwegians. This has actually led to a lack of housing in Riksgränsen. An additional aspect that might create a more negative perception of the border is the fact that Norwegians cross the border to drive snowmobiles. The relatively large amount of snow mobiles has a negative impact on, for example, reindeer husbandry and tourism.⁶

⁶ Recently, a reform has been launched in Norway where a number of municipalities will be allowed to set up their own local regulations for snow mobiles (Source: Dalarnas Tidning, <http://www.dt.se/allmant/dalarna/gront-for-norsk-snoskoterkorning-1>, (Accessed 2014-11-20)).

Changes in the perception of the border and border location

In general, the perception of the border and border location has not changed significantly during recent years. The EU focus on CBC in general and the Interreg programmes in particular have given new opportunities and resources for CBC in the area. However, there are still many challenges and obstacles for EU programmes to be a real driving-force for CBC. In Kiruna municipality, the focus is currently on the moving of the town, and all resources and efforts are spent on preparation for the move. Thus, there is no space for more strategic development projects such as CBC projects. The business related CBC has improved slowly. There are now more Norwegian companies working in Sweden and vice versa than it used to be, but there is still a great potential for further development. There is, however, a danger that the strong economic growth on both sides of the border may make companies less interested in CBC.

Relocation of Kiruna city centre

As a consequence of the expansion of mining operations, cracks in the ground underneath the city of Kiruna have necessitated for re-location of Kiruna city centre. LKAB calculates that around 3 000 apartments in Kiruna will be affected over the next 20 years as a result of mining operations. The city transformation project began in 2004 with the development of a new advanced comprehensive plan and environmental impact assessment for the city of Kiruna. In 2011 a decision was taken that a new city centre, including new housing and public services, will be relocated to the eastern parts of Kiruna, with opportunities for reestablishment in the north-west, at Luossavaara (Kiruna, 2014).

The current agreement between LKAB and the municipality of Kiruna regarding the relocation of the centre sets the terms for the funding of infrastructure (streets, roads and water and sewage systems), which are currently located within the area designated for future mining development and must now be built in the new urban centre. The Municipality of Kiruna will receive funding for schools, rescue services facilities, a library, bus station and public spaces within the so-called GP2 area, as well as several buildings outside the area, such as Folkets Hus and the indoor pool. The municipal housing company Kirunabostäder will also receive payments for commercial premises. The Municipality will also be reimbursed for initial construction work on the new town square (LKAB, 2014). According to the municipal executive board, the local residents will benefit from acquiring new, modern and more energy-efficient premises. The vision of a new town was developed together with residents.



Map 9: Development plan of 'new' Kiruna. Adapted from: Kiruna 2014.

The main opportunities and threats resulting from border location in the future

The most serious threat (although not expected) would be a reduction in the production output of the Kiruna iron ore mine. This would reduce the transportation of iron ore from Kiruna to Narvik and, thereby, have negative effects not only on traffic but on the whole development of the border region. Another factor that is important for the region is, according to interviews, the establishment of a double track for the train between Kiruna and Narvik. Currently there is only a single track and this is already being used over its capacity. The need to build more meeting places for the train is mentioned in the Swedish government's transport plan 2014-2025 (Nationell transportplan, 2014-2025). However, according to several of the interviewed persons, this is not enough to deal with the shipping of iron ore and with the transport of people for the tourism industry. It also needs to be coordinated with the national infrastructure strategy in Norway, since there should be a double track all the way to Narvik. In addition to the lack of double tracks, there are poor communications across the border in terms of trains, buses and air transport. Another challenge is the distance between the border towns.

Concrete successful examples of business related cooperation include the Norwegian mechanical company *Narvik mekaniska's* cooperation with Swedish mechanical industry. This proves that there are opportunities for even further cooperation. Norwegian companies tend to sign sub-contractors from Sweden when they lack capacity themselves. However, they do not want any large Swedish companies, they only want small actors to complement their chain. We also find an important cooperation within the field of tourism, where there is an ongoing cross-border exchange of tips and travel packages. Many have realised that there is a benefit in cooperating from coast to coast. Tourist companies in Sweden work with Norwegians and take their visitors to Norway.

Finally, there are no common public development strategies across the border. Regional and/or local policies in Norrbotten and Kiruna do not specifically mention cross-border cooperation. The ETC (Interreg) programmes covering this area are however an important part of regional development policy in the area. These EU programmes are defined by regional and local stakeholders in close cooperation with national and EU actors, thus they have both top-down and bottom-up perspectives.

Local and regional perceptions of desirable development scenarios

The overall perception is that the close proximity of the Norwegian border should be a greater advantage than it currently is and that the potential could be utilized in a better way. Kiruna municipality does not cooperate with Norway as much as could be possible. Currently most of the efforts of the municipality are concentrated to LKAB and the relocation of the city. But in the long-term, Kiruna municipality would like to improve contacts with both Finland and Norway and the same goes for Narvik in regards to Kiruna.

Regarding the relocation of Kiruna city centre, some interviewees emphasize that there are big opportunities ahead linked to the 'new Kiruna'. They note that the Finnish and Norwegian companies currently show interest in developing cooperation and in establishing themselves in the 'new Kiruna'. For the sake of Kiruna's economy, there is a strong need for diversification of the local economy. It is highly important to develop small and flexible enterprises in Kiruna, which would be able to adapt to different market situations and provide a replacement for the mining industry in case it experiences a recession in the future.

One example of potential cooperation with Norway is to transport natural gas via the Iron Ore Line. The relocation of the town of Kiruna can also imply possibilities for cooperation with Norway within the fields of electricity and arctic house building. There is also potential when it comes to education and research, for example cooperation with the Narvik University College which is actually the closest institution for higher education for Kiruna.

CBC within the field of culture is very much based on initiatives undertaken by individual actors at the local level. The presence of active and engaged people is therefore an important ingredient for advancing the existing cooperation and starting up new initiatives in future.

In interviews on the Swedish side, it was claimed that there was a lack of common development problems and practical need for cooperation in the case study area, as well as a fairly high level of comfort at home, which does not stimulate the companies to seek cooperation partners across the border. Tourism development in the case study area is highly dependent on improving the physical accessibility. Tourism industries note that there is a great demand but limited possibilities to get to tourist destinations. The tourism industries in Kiruna area suffer from limited flight connections. With regard to future plans for upgrading the Iron Ore railway, the question still remains whether and how it will affect the passenger traffic. Improving the accessibility of both Kiruna and Narvik would have an utterly valuable contribution to tourism development. In addition, there are good possibilities for expanding the ferry/boat tourism to Narvik, from where the tourists could travel to Kiruna by train.

In interviews, it is highlighted that there is a need in Kiruna to have a more strategic way of thinking about CBC. This is hardly addressed at all at the moment due to the focus on the relocation of the city. There is still pretty strong scepticism towards the EU in Kiruna and a lack of knowledge of what possibilities that EU can provide. Local actors in Kiruna do not see explicit need for having a common

strategy for cooperation between Kiruna and Narvik, as CBC is in many cases initiated by individual enterprises and organizations, and is based on personal contacts. There are direct benefits with regards to competence exchange and facilitating people-to-people contacts, which can also be a starting point for the development of cooperation. Interaction between persons from different countries and sectors and exchanges of experiences drive development, and there are many common issues in the North. There is a need to create common platforms for meetings to get preconditions for innovation, growth and development.

4. The responsiveness of external policies to local and regional conditions

4.1 Nordland and Norrbotten in the EU

Norrbotten is a strategically important region for the EU, accounting for more than 90% of the iron ore production in the Union. Nordland also plays an important role in Europe with regard to fisheries, as well as oil and gas extraction possibilities in future. The interests and special challenges of Nordland and Norrbotten are presented and communicated to the EU through several organizations located in Brussels. Norrbotten and Västerbotten counties in Sweden have their own North Sweden European Office in Brussels, which is also actively engaged in lobbying the North Swedish interests in the EU. In 2005 North Norway European Office was established in Brussels. The office is owned by Nordland, Troms and Finnmark counties and has a particular focus on the European Arctic policy, regional policy, raw materials policy, current industrial policy and Northern European Cooperation in Brussels. The North Norway European Office also aims to help North Norwegian actors to be able to use the possibilities that the EU-EEC treaty gives them. Moreover, the 14 northernmost regions in Sweden, Norway and Finland, including Norrbotten and Nordland, have established the Northern Sparsely Populated Areas (NSPA) network. The aim of the network is to raise awareness of the northernmost regions in the EU institutions and to influence EU policy.

Another arena for politicians at local, regional, national and European level is the *Europaforum Norra Sverige*, which consists of the four northernmost counties in Sweden. The purpose of the forum is to increase knowledge and awareness of European politics amongst the local and regional governments in the four north counties and to influence the areas which affect north Sweden. Its activities aim to encourage and support the regional governments to participate in the framing of the future cohesion policy.

When it comes to themes that the platforms and organisations deal with, infrastructure has been a key area of cooperation. Infrastructural investments in transport are vital for addressing the EU's prioritized thematic investments such as SME competitiveness, and for creating innovation in the far North of Europe. Enhancing the capacity of the Iron Ore Line is among the TEN-T transport network projects which are prioritised by the EU. At the same time, the Iron Ore Line is foremost a question of national importance.

Although not directly focusing on the issues of CBC, the different platforms mentioned above contribute to the development of a mutually beneficial dialogue with the European authorities. At the same time, it was argued in the report 'Strong, Specific and Promising: Towards a Vision for the Northern Sparsely Populated Areas in 2020' that while the cooperation between NSPA regions is well-established in Brussels, the sense of belonging to an area with shared opportunities and challenges is still insufficiently developed between the regions themselves (Gløersen, 2009).

4.2 The role of EU funded programmes

The EU cross-border and transnational programmes (Interreg programmes) are an important source of financing for CBC in the Kiruna-Narvik region. In the framework of Interreg IVA Nord 2007-2013 programme, both Nordland and Norrbotten have participated in a number of projects aiming at enhancing the transfer of innovations and skills across the border (see Chapter 2). Both Norrbotten and Nordland counties were also involved in several projects in the framework of the Kolarctic ENPI CBC programme 2007-2013, but no projects were realized with the participation of both counties together.

Interreg programmes are considered as proper instruments for CBC and economic development in the region. However, the administrative burden in the implementation of these projects has somewhat hindered a broader interest in Interreg projects. In interviews it is stressed that local and regional potentials and characteristics must be taken into account when forming the new EU CBC programmes as well as public programmes in general. The linkages to business must also be strengthened. It is suggested that persons with a local perspective and legitimacy should take a leading role in the programmes. It is also suggested that development organizations such as Progressum and Expandum should take a more leading role in the programmes. Additionally, important to have better tools to follow-up, measure and evaluate in order to create better legitimacy for the money spent. Added value for the society in terms of economic growth, employment, and cultural and social development, must be leading priorities for the programmes. A majority in Kiruna and Norrbotten voted no to Swedish EU membership in 1994 and this EU-scepticism still prevails. This might be a reason why the opportunities to apply for EU funding have not been used to a large extent. It might also be a matter of lack of competence in the municipalities concerning EU and regulations. It is a challenge to navigate in the EU programming system and the administrative burden in EU projects is too heavy for small companies. It is also necessary to have liquidity which might pose a problem, especially for small companies.

Many actors find it much easier to apply for and use local, regional and national resources instead of applying for EU funding. For example, there is a strong feeling in Kiruna municipality that participation in Interreg does not provide much added value. The municipality does not have any coordination of the different types of actors involved in CBC. This is mainly done by the County Administration Board. In addition, there is not much political interest in cross-border activities or much time for border-area measures. As stated before, the municipality is completely pre-occupied by the relocation of the city and has neither the time nor resources to work with other types of projects. It is also difficult to find areas of cooperation that would address the needs of the town of Kiruna. Since the situation in Kiruna (with the relocation of the city centre) is so particular, it is difficult to find partners in the Nord programme or in other EU programmes that are in the same situation.

CBC within the Sami community has always been strong. The first Sami CBC was initiated in 1951. Interreg has led to some kind of self-rule since the Sami community can decide for themselves on the resources. However, it is still not easy to implement projects. It was not until the third Interreg period in 2007-2013 that the cooperation was settled.

4.3 The role of other international funding systems in CBC

The regional cooperation between the countries has also been supported by North Calotte Council. The Council supports CBC involving regional authorities and industry actors. The current focus of the North Calotte Council is on supporting regional competitiveness (including business and innovation development, research and development, and infrastructure); diminishing border obstacles to promote Nordic integration; sustainable development and alternative energy solutions; exchange of experiences and identity reinforcement and information activities (North Calotte Council, 2013). The North Calotte Council co-finances Interreg projects and other collaboration projects which are mainly carried out by external stakeholders. The North Calotte Council grants Nordic funds to projects that are in line with the priorities of the Council (Harbo, 2010).

At a wider geographical scale (the Barents Region) there are a number of cooperation organs affecting the Kiruna Narvik-region: the Sami community has strong CBC bonds and thus strong cooperation bodies. One of them is the Sami Parliamentary Council, established in 2000, which is a cooperation between the Sami elected bodies in Norway, Sweden and Finland. The Sami community in North West Russia has observer status in the Council. In addition, the Barents cooperation, a transnational cooperation between Sweden, Norway, Finland and Russia plays a role in the area. The Barents cooperation consists of the Barents Euro-Arctic Council, an intergovernmental cooperation body, and the Barents Regional Council, which unites regional level representatives and a representative of the indigenous peoples in the northern parts of Finland, Norway and Sweden and north-west Russia (Barents Euro-Arctic Council, 2014).

4.4 Changing governance in the Arctic

In a traditional European perspective, the northernmost regions have been treated as 'exceptional' due to harsh climatic conditions, peripherality and a sparse population structure. Located in the outskirts of Europe, these areas are sometimes not even presented on thematic maps of the European territory, which are often cut just above Helsinki, Oslo and Stockholm (Gløersen, 2009). In recent years, however, the Arctic has become an object of intense political interest both from the EU and globally: *"with the commercialisation of the Northern Sea Route and the increased focus on the supply of raw materials to Europe, the Barents region has rapidly been put on the European political agenda"* (North Norway, 2011). No longer isolated and remote, the Arctic region is becoming a member of the global society, often even at the center of the global attention (Megatrends, 2011).

The current framework for governance in the Arctic is based on an international treaty – the UN Convention on the Law of the Sea from and the Arctic Council. In a current setting the Arctic Council cannot effectively manage the Arctic region, which is undergoing a vast transformation, as it cannot provide effective dispute resolution and enforcement mechanisms (Ingimundarson, 2014). There are differing views and interests among the Arctic Ocean coastal and non-coastal states, the Inuit, the EU and other interested parties on what the future governance of the Arctic should look like (Koikurova, 2010).

The East and South Asian countries, for instance, argue for the Arctic as a global commons and support a more inclusive governance arrangement (Adelphi Series, 2013). The same goes for the EU. The European Commission is already involved in the Arctic issues through several sub-regional

programmes and by providing financial support to its northern member states, Sweden and Finland, located around and north of the Arctic Circle, as well as to Greenland, which is one of the Overseas Countries and Territories (OCT) associated with the EU (Raspotnik and Keil, 2012).

Moreover, three Arctic Council member states (Sweden, Finland and Denmark) are also EU members. At the ministerial meeting of the Arctic Council in May 2013, the EU application for Permanent Observer status was 'affirmative' but the Arctic Council deferred a final decision on the issue (Boyd, 2013).⁷ The European Parliament in a resolution of March 2014 has called for an "EU strategy for the Arctic" (European Parliament, 2014). Currently, the EU Arctic policy has three main objectives: protecting and preserving the Arctic in cooperation with the people who live there, promoting sustainable use of resources and international cooperation.

There are also different priorities regarding the development in the Arctic among the Nordic countries. The Norwegian Government's High North Strategy's (2006) overall goal is to create sustainable growth and development in the High North according to three overarching principles: presence, activity and knowledge. Sweden's Arctic strategy's (2011) main priority areas are climate and environment, economic development and the human dimension. While the Norwegian Government emphasizes the systematic building of knowledge and knowledge infrastructure at the higher education institutions in the Arctic, Sweden's Arctic strategy puts a stronger emphasis on "economic development" (Heininen, 2011; MFA Norway 2011; MFA Sweden 2011).

The possible implications of the transformations in the Arctic region on the case study area will be discussed in Chapter 5.

5. Policy options and scenarios

In March 2014, a stakeholder forum was arranged in Kiruna by the project team in order to gather regional and local stakeholders and to achieve their common view on the current and future development of the region. To ensure a balanced development of the economy in the Kiruna-Narvik area in a long term perspective, the overall recommendation at the stakeholder forum was that the economy should be based on three main sectors: the mining industry, tourism and space research. Currently one of the sectors (the mining industry) is heavily dominating, which creates an unstable situation. Therefore, providing greater support to the other two core industries in the Kiruna area is desirable. When it comes to the development of tourism, a crucial concern of the tourist companies are the connections to the region and within the region. The flight connections from Stockholm to Kiruna and from abroad, and also the railway connections, have to be improved. The passenger traffic between Kiruna and Narvik also needs to be improved in order to facilitate cooperation across the border. Space research and related activities are also perceived as having a large potential for development in the region, at least on the Swedish side. Kiruna is already a centre for space research and education in Sweden and Europe. The Esrange Space Center provides the largest civil ground station for satellites in the world. In addition, the Luleå University of Technology provides an Undergraduate Space programme which is located to Kiruna. The initiative Spaceport Sweden has

⁷ There is no certainty yet that the EU will actually obtain the Permanent Observer status, as it stated that the final decision on implementation is delayed "until the Council ministers are agreed by consensus that the concerns of Council members...are resolved, with the understanding that the EU may observe Council proceedings until such time" (Arctic Council, 2013: 6). The main concerns were expressed by the Canadian government and are about the ban by the EU of the importation of seal products (Nygaard, 2014).

been taken to further develop Kiruna as a space center with the ambition of providing both test grounds for astronauts and tourist activities. Currently, there is no particular CBC with Norway in this field but there is potential for future cooperation, for example with the Andøya Rocket Range outside Narvik.

Even though the economy of the Kiruna area needs to be diversified, the mining industry will remain the core industry. The mining industry is heavily dependent on transport and the main challenge is the lack of capacity on the Iron Ore Line. LKAB is increasing production and, in addition, a new mining company (Northland Resources) will transport iron ore from the mine in Pajala to the harbour in Narvik. This also shows that there is a need to strengthen the east-west communications by supporting projects that sustain the development of cross-border infrastructure, as this is crucial to any cross-border regional development.

5.1 Potential for further development of CBC

Apart from continuous cooperation in mining and related activities and increased cooperation within tourism and space research, there is also potential to develop CBC in education by offering special educational training in the fields of social and health care, civil engineering etc.

On the basis of the comments on the difficulties of getting access to the EU funding system referred to in chapter 4, there is a strong need for facilitating more efficient use of programme funding (e.g. Interreg, Kolarctic) by, for example, developing competencies at the regional/local level needed for involvement in large EU projects.

The CBC activities are rather limited due to the above mentioned difficulties in accessing funding for projects, but perhaps more importantly because regional and local stakeholders do not see CBC as giving much added value to their activities. The strong positive economic development in the Kiruna-Narvik region means that there are not many incentives for CBC and/or to prepare for potential worse times in the future. In order to make the CBC activities more useful in practice, there might however be a need to develop common overall and long-term strategies for increased cross-border cooperation in the region. Local and regional decision-makers and civil servants tend to focus on everyday activities, and there might be a lack of time to develop overall strategies. One concrete example of a regional initiative in Norrbotten to discuss long-term strategies is 'Kraftsamling'.⁸ The aim of the initiative, led by the County Council of Norrbotten, is to discuss the future challenges and opportunities of the whole Norrbotten region. However, this initiative does not have any particular focus on CBC. As emphasized by various stakeholders in the border region, the strengthening of people-to-people contacts plays an important role in facilitating CBC. By means of organizing joint events and networking activities, important business linkages can be established.

⁸ Kraftsamling, <http://www.kraftsamling.net/om-kraftsamling/> (Accessed 2014-11-21)

5.2 Implications of changes in Arctic governance for the Kiruna-Narvik region

Given the ongoing changes in the Arctic environment, an increasing interest in the region and the need for creating effective governance regime, development in the Arctic region can take different courses. What is clear already today is that there is a shift in focus from environmental issues to human and in particular economic development in the region.

Despite differences among the national Arctic strategies already referred to in section 4.4, all of them place high priority to economic development (Adelphi Series 2013). Sweden's Arctic strategy emphasizes petroleum, i.e. oil and gas resources in the Barents Sea region, even more than mining which has been, and remains, the cornerstone industry of Northern Sweden. Economic development seems therefore to be a top priority of Sweden's arctic policy (Heininen, 2011; MFA Norway 2011; MFA Sweden 2011). Economic cooperation was also mentioned as a top priority in the Arctic Council's Kiruna Vision from May 2013, claiming that *"transparent and predictable rules and continued cooperation between Arctic States will spur economic development, trade and investments"* (Arctic Council, 2013).

As discussed in section 4.4, the EU actions are expected to be more present in the North in the future. This also refers to the Kiruna-Narvik border area, influencing the region's political and socio-economic development. The fact that enhancing the capacity of the Iron Ore Line is among the TEN-T transport network projects prioritised by the EU demonstrates a growing importance of the region for the EU.

As part of the Arctic region, the Kiruna-Narvik border area will be inevitably influenced by the future governance regime for the Arctic. An increased interest in the Arctic region and its natural resources could on one hand promote socio-economic development in the Kiruna-Narvik border area, while on the other hand could cause tension and conflict with the interests of the Sami people and affect their traditional livelihood. Against this backdrop, there is a necessity for the development of more coherent Arctic policies and responses to Arctic issues. Balancing the needs for exploration and the requirement of conservation while also addressing climate change and social development challenges requires effective governance (Megatrends, 2011).

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