

# Cohesion Policy in Northernmost Regions of the EU

North Sweden, North & East Finland



**Regional Development**





RESEARCH FOR REGI COMMITTEE

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North Sweden, North & East Finland

## **Abstract**

Northern Sparsely Populated Areas (NSPAs) have high economic potentials. Proactive public policies are needed to unlock them by overcoming key demographic challenges, making it possible for companies to recruit skilled staff and enhancing the welfare and quality of life of their populations. The study describes measures implemented to this end under EU Cohesion Policy. It suggests that more integrated approaches could help address these challenges in a more effective way and preserve territorial cohesion within NSPA regions.

This document was requested by the European Parliament's Committee on Regional Development.

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## LINGUISTIC VERSIONS

Original: EN

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Manuscript completed in June 2022

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This document is available on the internet in summary with option to download the full text at: <https://bit.ly/3QZ4lCk>

This document is available on the internet at:

[http://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL\\_STU\(2022\)699657](http://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU(2022)699657)

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### **Please use the following reference to cite this study:**

Gløersen, E 2022, Research for REGI Committee – Cohesion Policy in Northernmost Regions of the EU, European Parliament, Policy Department for Structural and Cohesion Policies, Brussels

### **Please use the following reference for in-text citations:**

Gløersen (2022)

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## LIST OF ABBREVIATIONS

<b>COVID</b>	Coronavirus Disease
<b>ELY-Centre</b>	Finnish Centre for Economic Development, Transport and the Environment
<b>EMFF</b>	European Maritime and Fisheries Fund
<b>ERDF</b>	European Regional Development Fund
<b>ESF</b>	European Social Fund
<b>ERTMS</b>	European Rail Traffic Management System
<b>GDP</b>	Gross Domestic Product
<b>GVA</b>	Gross Value Added
<b>ICT</b>	Information and Communication Technologies
<b>ITI</b>	Integrated Territorial Investment
<b>LEED</b>	Leadership in Energy and Environmental Design
<b>LKAB</b>	Luossavaara-Kiirunavaara AB
<b>LTU</b>	Luleå Technical University
<b>NSPA</b>	Northern Sparsely Populated Areas
<b>NUTS</b>	Nomenclature Unifiée de Territoires Statistiques
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>ROP</b>	Regional Operational Programme
<b>SME</b>	Small and Medium-sized Enterprise
<b>TEN-T</b>	Trans-European Networks - Transport

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## EXECUTIVE SUMMARY

### KEY FINDINGS

- Northern Sparsely Populated Areas (NSPAs) have high economic potentials, especially in the context of Europe's Green and Digital Transition.
- To unlock these potentials, some key challenges need to be overcome: make it possible for companies and public authorities to recruit staff with needed skills, ensure essential levels of transport infrastructure endowment and connectivity.
- Cohesion Policy has successfully supported Research and Development and Innovation (R&D&I) activities, helped develop SMEs and contributed to the diversification of local economies.
- However, limited attention is paid to the preservation of territorial cohesion at the subregional level. More coordinated efforts are needed to address demographic challenges, make NSPA more attractive to skilled workers and overcome recruitment difficulties of NSPA companies.
- Territorial instruments such as Integrated Territorial Investments targeting individual labour market areas could help overcome this challenge. Authorities in both Sweden and Finland have decided not to use such instruments in the 2021-2027 programming period.

The Northern Sparsely Populated Areas (NSPAs) include one NUTS 2 region in Finland (North and East Finland) and two NUTS 2 regions in Sweden (Upper Norrland and Middle Norrland). These regions all have average population densities below 8 inh./km<sup>2</sup>. On this basis, and with reference to the 1994 Act of Accession of Sweden and Finland to the European Union, they benefit from a specific additional allocation under Cohesion Policy.

The NSPAs are regions with high economic potentials. Proactive public policies are needed to unlock these potentials, primarily to overcome their major demographic challenges: concentration of population to a limited number of towns and cities, ageing, gender imbalances. Value creation is associated to traditionally male dominated primary activities such as mining, forestry and processing industries. Female employment is concentrated in public services. NSPAs also need to overcome challenges linked to long distances to markets and low connectivity.

In 2019, GDP per inhabitant values in NSPA regions were between 6 % and 60 % above EU27 average values. Lowest values were observed in Finnish regions of South Savo and North Karelia. Norrbotten in Sweden stands out with particularly high values, linked to income from mining and manufacturing. NSPA regions have generally displayed a high adaptive capacity in recent years. Some, especially in East Finland, have experienced periods of high unemployment, but have recovered after a few years. While unemployment levels tend to be higher in Finnish NSPA regions compared to Swedish ones, a lack of human resources will become a main development bottleneck in years to come across the entire NSPAs, unless sufficiently ambitious measures are taken. Extensive labour market mismatches occur. Companies have difficulties recruiting staff with the skills and competences they need.

Admittedly, changes in remote working habits during the pandemic have made it possible to attract new residents to NSPA regions, to recruit experts living outside of the NSPA and to develop hybrid work solutions (partly remote, partly face-to-face) within NSPA regions. While this helps overcome some

recruitment challenges, coordinated solutions are needed to make NSPAs more attractive to skilled workers.

This challenge has become more acute in recent years. Swedish NSPA regions have attracted a series of major industrial investments that are expected to generate thousands of new employment opportunities. These are mostly concentrated along the coast. Numerous investments in new growth sectors also occur in Finnish NSPA regions.

The key to making NSPA economies more robust and resilient is to develop a greater number of SMEs and to enhance their international competitiveness. This can help establish a more diversified and robust labour market, e.g. offering more attractive employment opportunities to young graduates and women. NSPA regions support the development of internationally competitive SMEs offering support services connected to their existing mining and manufacturing industries.

The green transition of European industries is a development opportunity for NSPA regions. Swedish NSPA regions have access to abundant renewable hydropower and will host Europe's largest wind park in coming years. Access to energy is more problematic in Finnish NSPA regions, especially since the construction of their first nuclear power plant was abandoned in May 2022. However, the market for wood buildings may be expected to grow, as substituting lumber for materials such as cement and steel could cut emissions of greenhouse gases. Finnish wood processing plants are expected to benefit from this trend.

Tourism is another major growth sector. Most NSPA regions experienced a major decline in tourist frequentation because of the COVID pandemic in 2020. This decline was partly compensated in most regions in 2021. Tourism performance was weakest in Norrbotten (Sweden), and strongest in Finnish Lapland.

NSPA regions are confronted to long distances to markets and limited connectivity. The "missing link" of the Bothnian rail corridor ('Norrbotniabanan' in North Sweden) is a potential development bottleneck. In 2021, the Swedish government confirmed that this railway line would be built. The decline in the number of flight connections to and from NSPA airports as a result of the COVID pandemic had a major impact on some localities' accessibility. Public support to the operation of some connections has been strengthened to compensate for the slow recovery of air traffic.

Cohesion Policy programmes in Sweden target NUTS 2 regions. However, regional governance is primarily organised at NUTS 3 level. The four Swedish NSPA NUTS 3 regions (two in each programme area) are directly elected. However, they only recently started elaborating strategic regional development plans. This has had an impact on the capacity of regions to implement cohesion policy programmes in some fields, e.g. shift towards a low-carbon economy.

Finnish regions are formally associations of municipalities. Some commentators consider that this weakens regional level governance. However, these regions have been responsible for strategic planning since their creation in 1997. There are eight such regions in the Finnish NSPA. Cohesion Policy in mainland Finland is implemented by a unique national programme.

In both countries, a national authority functions as managing authority of all programmes. However, the selection of projects to be funded is carried out by the regions. In Finland, cohesion policy implementation is closely coordinated with so-called "ELY Centres", regional state administrative authorities with branches in all regions. Each Finnish region has a complete overview of available funding (including national co-financing) at the beginning of each programming period. Swedish regions to some extent compete for funding and co-financing within NUTS 2 regions. Cohesion policy

implementation is carried out in close cooperation with regional offices of the Swedish Agency for Economic and Regional Growth ("Tillväxterket").

Projects funded by the so-called "specific additional allocation" in theory target sparsely populated areas within the regions. However, in practice, no clear methodology to distinguish such projects from "mainstream" regional development measures has been elaborated. This is partly because urban centres and remote areas are functionally interdependent, and project benefits diffuse across the entire NSPAs. However, there is also limited political interest in specifically supporting the most remote areas where the development of internationally competitive, knowledge intensive activities is most challenging.

In the 2014-2020 programming period, support to SMEs is the thematic objective that receives the greatest share of ERDF funding in most NSPA regions. This is consistent with OECD recommendations on the importance of diversifying economic activities. A large part of ERDF funding also goes to support to R&D and innovation across the entire NSPA regions. The pursuit of knowledge-based development is facilitated by the strength of their higher education institutions.

"Low carbon economy" receives a considerably larger share of funding in Finnish NSPA regions compared to Swedish ones. The detailed review of measures reveals that this mainly consists in SME support, with variable levels of ambition regarding the greening of economic activities. A broad range of R&D projects have also been financed.

Overall, Cohesion Policy has successfully supported R&D&I activities, helped develop SMEs and diversify local economies. While extractive and processing industries of global significance continue to generate a large part of regional added value, Cohesion Policy contributes to enhance the resilience and sustainability of regional economies by developing ecosystems of complementary and additional activities.

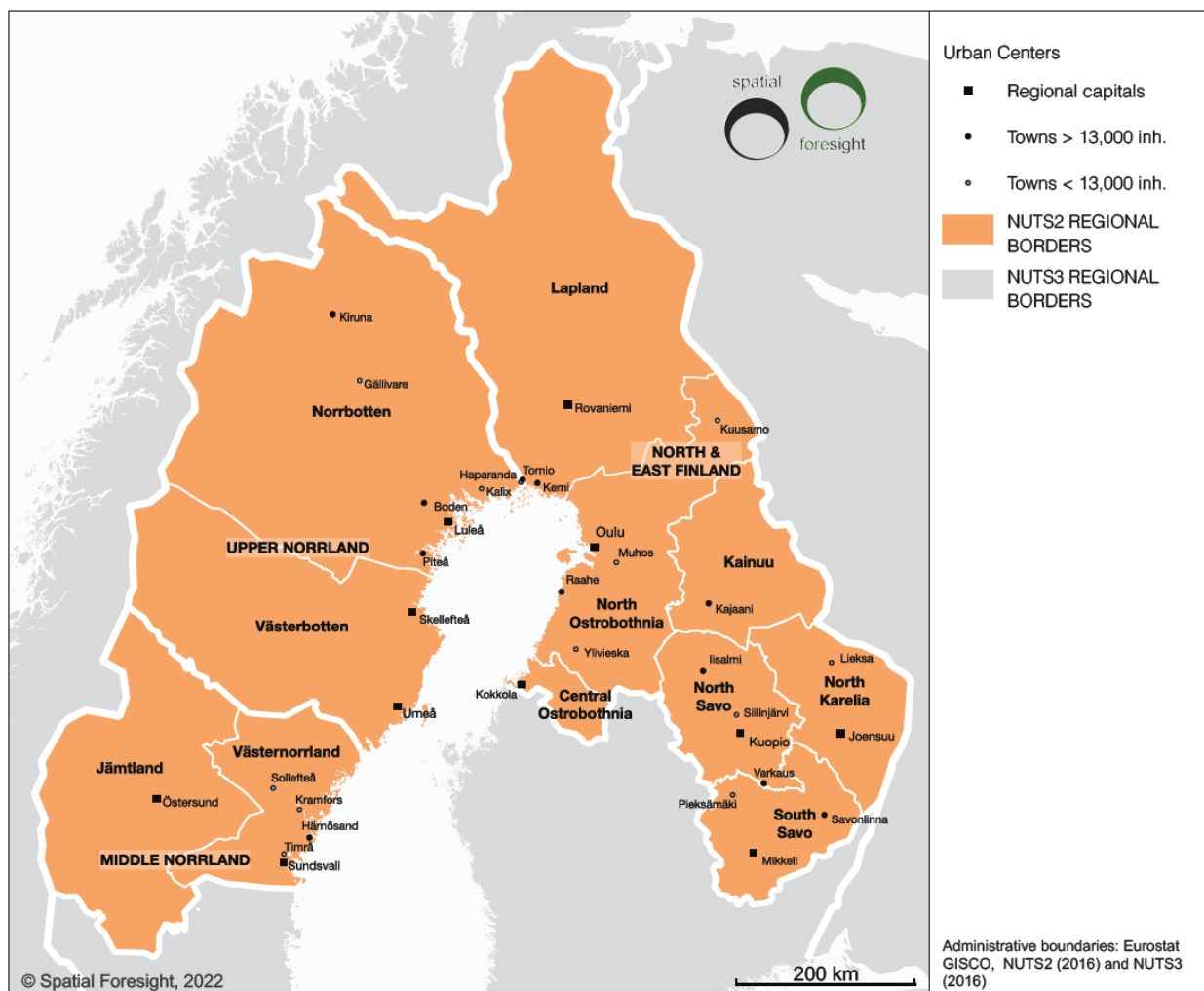
However, regions are still confronted to major demographic challenges. Recruitment of qualified staff is an increasingly important development bottleneck. Continued concentration of population in and around a limited number of major towns affects territorial cohesion in NSPA regions. Remote municipalities are confronted to increasing challenges to preserve the provision of essential services of general interest.

Finnish and Swedish authorities have for different reasons chosen not to resort to Integrated Territorial Investments. In the absence of territorially integrated approaches at the level of local labour markets, the extent to which cohesion policy may effectively help overcome key social challenges (lack of skilled labour, ageing, and gender imbalances) can be questioned. Integrated Territorial Strategies could be particularly purposeful in remote parts of NSPA regions, as part of efforts to promote a territorially balanced development.

## 1. INTRODUCTION

The northernmost regions of the EU are often referred to as the Northern Sparsely Populated Areas (NSPAs). They include the four northernmost counties of Sweden (Norrbotten, Västerbotten, Jämtland Härjedalen and Västernorrland) and the seven northernmost and eastern regions of Finland (Lapland, Oulu, Central Ostrobothnia, Kainuu, North Karelia, Etelä-Savo and Pohjois-Savo)<sup>1</sup>. These regions are grouped in two NUTS 2 regions in Sweden (Middle Norrland and Upper Norrland) and a unique NUTS 2 region in Finland (see Map 1 below). All three NUTS 2 regions have average population densities of less than 8 inhabitants per square km.

**Map 1 Overview map of the northernmost regions of the EU: the NSPA area**



The NSPA regions are of strategic importance for Europe as a whole in many respects. First, they are gateways to the Arctic. The Arctic Human Development Reports identify their northernmost part (Upper Norrland in Sweden and Lapland in Finland) as Arctic regions (Nyman Larsen et al., 2004; Nyman Larsen and Fondahl, 2015). The 2021 Joint Communication “A Stronger EU engagement for a

<sup>1</sup> The three northernmost counties of Norway (Finnmark, Troms and Nordland) are also part of the NSPA network, but are not addressed in the present report as they are not recipients of EU Cohesion Policy.

Peaceful, Sustainable and Prosperous Arctic” confirms the EU’s commitment to support a comprehensive, inclusive and sustainable development of the Arctic regions. While these issues objectives are primarily pursued under EU Foreign Policy, Cohesion Policy programmes also contribute to their achievement (Koivurova et al., 2021). EU regional policy in the Arctic has been synthesised in a separate European Parliament briefing (D’Ambrogio, 2022).

Second, NSPA regions provide many resources of key importance for Europe’s development: renewable energy (hydropower, wind energy, biomass), minerals (iron ore, cobalt, nickel) and forestry products. They can make a major contribution to Europe’s transition to a low carbon economy. Extraction and processing facilities are among the most modern and competitive in the world. NSPA regions also have particularly favourable preconditions to host data warehouses, e.g. with respect to cooling.

Third, the Russian invasion of Ukraine in February 2022 has shown the importance of a continued human and military presence in the NSPA regions. In addition, EU sanctions have had negative impacts in these regions, which Cohesion Policy can help to address.

The present report explores the design, implementation and achievements of Cohesion Policy in the European Union’s northernmost regions, i.e. the NUTS 2 regions of Norrland (Sweden) and East and North Finland. It focuses more specifically on the ERDF component of regional operational programmes, which can more easily be related to regional development strategies. Cross-border and transnational cooperation programmes are not covered.

The report is organised in three main parts:

- Chapter 2 describes social and economic development patterns of these regions. This synthesis is preceded by a short presentation of how this group of regions has been established as a transnational area in the European Union since Sweden and Finland accession in 1994. Development issues and policy priorities identified as part of this process are then compared to observed social and economic development in recent years. A description of selected key impacts of the COVID epidemic complements this analysis.
- Chapter 3 provides an overview of ERDF priorities, intervention logics and achievements in the 2014-2020 programming period. A succinct presentation of cohesion policy governance in respectively Finland and Sweden is followed by an introduction to the role played by the EU specific additional allocation for northern sparsely populated and outermost regions in the financing of cohesion policy in this part of Europe. This contextual information precedes the presentation of ERDF measures under each Cohesion Policy thematic objective, with comparisons of financial volumes and intervention logics in the different countries and regions. The chapter is concluded by an overview of discussions on the possibility of resorting to integrated territorial investments in Sweden and Finland’s most sparsely populated and peripheral regions.
- Chapter 4 presents a synthesis of observations and some policy priorities to be considered in the 2021-2027 programming period.

The analysis is primarily based on document reviews and a limited number of interviews with regional stakeholders and experts. Maps and figures are based on statistical data that have been downloaded from the websites of national statistical offices and Eurostat. In addition, information on Cohesion Policy measures has been extracted from online databases, the National Swedish Agency for Economic and Regional Growth’s “Projektbanken” and the Finnish Ministry of Employment and the Economy’s Structure Fund Information Service “Eura 2014”.

## 2. SOCIAL AND ECONOMIC CHARACTERISTICS OF NORTH SWEDEN AND NORTH & EAST FINLAND

### KEY FINDINGS

- The Northern Sparsely Populated Areas (NSPA) are regions with high economic potentials. Proactive public policies are needed to unlock these potentials.
- They are all confronted to major demographic challenges: concentration of population to a limited number of towns and cities, ageing, gender imbalances.
- They also display economic growth rates similar to national average values, with some higher volatility. The regions have generally displayed a high adaptive capacity in recent years.
- Unemployment levels are mostly higher in Finnish NSPA regions compared to Swedish ones. However, labour market mismatches are a major challenge across the entire NSPA area.
- Swedish NSPA regions have recently attracted a series of major industrial investments, that are expected to generate thousands of new employment opportunities. These are mostly concentrated along the coast.
- Numerous investments in new growth sectors also occur in Finnish NSPA regions.
- Limited human resources may become the main development bottleneck in years to come, unless sufficiently ambitious measures are taken.
- The "missing link" of the Bothnian rail corridor ('Norrbotniabanan' in North Sweden) is another potential development bottleneck. In 2021, the Swedish government confirmed that this railway line would be built.
- Swedish NSPA regions have access to abundant renewable hydropower, and host the construction of Europe's largest wind farm. Access to energy is more problematic in Finnish NSPA regions, especially since the construction their first nuclear power plant was abandoned in May 2022.
- Most NSPA regions experienced a major decline in tourist frequentation as a result of the COVID pandemic in 2020. This decline was partly compensated in most regions in 2021. Tourism performance was weakest in Norrbotten (Sweden), and strongest in Finnish Lapland.
- The decline in the number of flight connections to and from NSPA airports as a result of the COVID pandemic had a major impact on some localities' accessibility. Public support to the operation of some connections has been strengthened to compensate for the slow recovery of air traffic.
- Changes in remote working habits during the pandemic have made it possible to attract new residents to NSPA regions, to recruit experts living outside of the NSPA and to develop hybrid work solutions (partly remote, partly face-to-face) within NSPA regions.

### 2.1. The emergence of the Northern Sparsely Populated Area as a transnational European grouping of regions

European integration triggered the emergence of the Northern Sparsely Populated Area (NSPA) as a geographic and political entity. EU accession negotiations in the early 1990s led to Swedish and Finnish



membership in 1995<sup>2</sup>. As part of these accession negotiations, the “Protocol No. 6”<sup>3</sup> for “special Structural Fund support” for the least densely populated regions of these two countries was adopted. On this basis, they were first targeted by a dedicated Cohesion Policy ‘objective’ (Objective no. 6) in the 1994-1999 programming period. Then the European Union decided to simplify the organisation of Cohesion Policy and reduce the number of objectives from 6 to 3. As a result, NSPA regions became beneficiaries of Objective 1, whose aim was to “promote the development and structural adjustment of regions whose development [was] lagging behind”. This implied that they included in the same group as lagging regions of e.g. Greece, Spain, eastern Germany and southern Italy and most of the then “New Member States”. During the programming period, it became obvious that the economic performance of NSPA regions did not justify their inclusion in this group. The European Commission therefore engaged in a dialogue on how Cohesion Policy could best reflect the provisions of “Protocol No. 6.

For the NSPA regions, European integration gave the opportunity for a new start in terms of identity and social and economic ambitions. These regions are historically, and to a large extent also currently, in a relation of dependence to centres of political and economic power on the southern part of respectively Finland and Sweden. At the same time, their natural resources have played a major role in these countries’ economic development, making the emergence of advanced welfare societies possible. With European integration, NSPA regions position themselves in the Single Market. Their natural assets can become components of broader value chains. NSPA regions can also brand themselves as ‘gateways’ to the Arctic, whose strategic importance is increasing. The line of argument for a proactive regional policy in the NSPA region has therefore been that major development opportunities of relevance for Europe as a whole can be unlocked by overcoming some key social and infrastructure-related challenges.

The NSPA regions have joined forces in developing and promoting these arguments at the national and European levels. The NSPA network was established in 2004. Two documents have been central in their European positioning:

- In 2009, the Nordregio report *Strong, specific and promising* (Gløersen, 2009) was the output of a foresight process involving key regional stakeholders.
- In 2017, the OECD territorial review provided an extensive analysis of regional economic performance, development opportunities and challenges and formulated policy recommendations on that basis.

Key messages from these two central studies are synthesised in Box 1 and Box 2 below. The following sections discuss the extent to which observations from these two studies remain valid.

### **Box 1 : Key messages of the 2009 foresight study - *Strong, specific and promising* – Towards a Vision for the NSPA**

The Nordregio report *Strong, specific and promising* (Gløersen, 2009) was the output of a foresight process involving key regional stakeholders. This process played a major role in defining the strategy for the European positioning of the NSPA.

The 2009 study highlighted some key characteristics of the NSPA in social terms:

<sup>2</sup> Norway remained member of the European Economic Area and has as such been integrated in the Single Market since 1994.

<sup>3</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A11994N%2FPRO%2F06>



- Most labour market experiences demographic decline (15 out of 189 between 1992 and 2007)
- There is a major gender bias: The association of NSPA to “male values” is embedded in the industrial history of these regions. Value creation is associated to traditionally male dominated primary activities such as mining, forestry and processing industries. Female employment is concentrated in public services.

In economic terms, the following patterns and trends were highlighted:

- NSPA regions have long sought to limit exports of raw materials and develop processing industries that would generate more added value. However, preconditions for such development are absent: lack of workers, lack of risk capital and limited willingness of multinational corporations to support such development.
- The strategic alternative is structured in three parallel priorities:
  - o Preserve and strengthen the global competitiveness existing extraction and processing industries,
  - o Extend the range of small- to medium-scale knowledge intensive activities, typically within research and development, high technology production and media,
  - o Make NSPA economies more ‘circular’ by extending the range of business services and services to the local population produced within the NSPA region.
- NSPA industries are already knowledge intensive. Knowledge intensity is not constrained by settlement size or distance to major agglomerations, but by the linguistic, cultural and institutional capacity to participate in international networks.
- The key challenge is to attract highly qualified staff.

The lack of adapted transport infrastructure is identified as a significant development bottleneck. The Bothnian Corridor running along the shores of the Bothnian Sea on the Swedish and Finnish side plays particularly crucial role. The completion of rail infrastructure along this corridor would provide a reliable and environmentally friendly connection to continental Europe. It would function as the centrepiece of a system of East-West connections.

A key conclusion is that there are extensive economic development opportunities, but that these may not be sufficient to maintain balanced settlement patterns in the NSPA. This is mainly because labour markets are small, and vulnerable to economic cycles and fluctuations in world market prices. The key strategic objective is to enhance the economic and social robustness of local communities, to enable them to overcome cyclical crises. A focus on knowledge intensive activities is seen as offering long term guarantees for maintaining a high capacity of adaptation.

Regional stakeholders that contributed to the foresight exercise emphasized that, while the NSPA is at the margins of the European Union, it should not be dealt with as a ‘periphery’. The NSPA considers itself as driver of change in important sectors such as mining, metal processing, forestry and energy production. It is connected to global networks of innovation, commercial exchange in these fields. Its geographic position close to the Arctic and Russia is of high strategic importance. The motto ‘strong, specific and promising’ reflects the high potential ‘return on investment’ of development policies targeting the NSPA, while also emphasising that these regions need special treatment in some respects to fulfil their potential.

**Box 2 : The OECD Territorial Review ‘Northern Sparsely Populated Areas’**

The OECD review notes the importance of the contribution of the Finnish and Swedish NSPA regions to national economic growth and well-being. In both countries, NSPA regions concentrate major export activities such as forestry-related industries (wood and paper), chemical industries, mining and basic metal. North Sweden in addition concentrates hydroelectric production, while North Finland (Finnish Lapland) is a particularly well-established international tourism destination.

The review also highlights that NSPA regions are geopolitically important, due to their closeness to Russia and to the Arctic. It notes that national governments and the European Union put an increasing emphasis on Arctic Policies.

Differences between NSPA regions and other European regions are identified, and the implications for economic and social development are spelled out. The main identified specificities are harsh climate, long distances to markets and sparse settlement patterns that limit access to key services. In demographic terms, population is concentrating in large urban centres. The population is also ageing. Demographic challenges are most acute in rural parts.

In terms of economic development, some significant differences between NSPA regions are highlighted. Finnish exports have fallen significantly since the 2000s, as a result of a combination of factors: reduced demand for paper and pulp, evolutions on global markets for electronic products, and sanctions against Russia since the invasion of Crimea in 2014. These shocks have had a major impact in Finnish NSPA regions. East Finland also stands out with markedly lower productivity levels than in the rest of the NSPA.

In Sweden, the economic performance of Upper Norrland (Norrbotten and Västernorrland) has been higher than in Middle Norrland (Västernorrland and Jämtland Härjedalen). The strong mining base of Norrbotten partly explains these differences. However, Upper Norrland also has stronger education and research institutions. Growth in tourism has been strong in Middle Norrland, e.g. in connection to winter sports. The OECD review identifies a convergence process within the NSPA, with higher growth in regions with the lowest GDP per capita levels.

Overall, NSPA regions have productivity levels above OECD average, but below average values in the Nordic countries. Compared to other Swedish and Finnish regions, their economies are also more dependent on the public sector. Extensive employment in the public sector is, especially in smaller municipalities, identified as a symptom of the weaknesses in the private sector and as factor that may limit entrepreneurship. Population concentration in larger agglomerations puts pressure on public infrastructure and services. Growth across the NSPA is mainly hampered by demographic factors, and this may be accentuated as ageing leads to a shrinking labour force. At the same time, labour productivity has been a key driver of economic growth since the 2000s.

The OECD review considers that local labour markets could be the best scale to monitor economic performance and to implement public policies. This would make it possible to better reflect the diversity of sub-regional preconditions for economic growth and sustainable development. Some key challenges are more easily identifiable at the level of local labour markets, e.g. the difficulty of diversifying local economies with very low population, poor connectivity, limited access to services of general interest and, in many cases, a few dominant industries that “crowd out” entrepreneurial initiatives.

Public policies may, according to the OECD review try to overcome these challenges by promoting collaborative approaches to the capitalisation on absolute advantages. It emphasises that a diversification of economic activities is needed to make NSPA economies sustainable. Entrepreneurship may be promoted in fields such as ICT-related services, tourism, niche manufacturing and food production. It also notes that the indigenous Sami population may be connected to regional development strategies in a more consistent and ambitious way.

## 2.2. Key demographic patterns and trends

Continuous population decline over multiple decades and low population figures are major obstacles to sustainable development in large parts of the NSPA. Recent trends at the municipal level suggest that demographic polarisation is more acute in North and East Finland than in North Sweden (see Map 2). However, these results can be put into perspective by considering a longer time-perspective (demographic trends from 1961 onwards in Map 4) and more fine-grained data (demographic trends at the level of settlements in Map 3).

Between 2011 and 2021, population has generally been growing in coastal NSPA municipalities in Sweden, while it has been declining in the inland. The main exception is the inland municipality of Åre in Jämtland, whose population growth is among the highest in Sweden. This is mainly linked to its booming tourism industry. Its natural amenities have also attracted many new residents. The regional capital Östersund also experiences population gains.

In Finland, a smaller proportion of municipalities experience population growth, and these can be found along the coast as well as in the inland. Growth occurs in and around regional capital cities such as Oulu, Kuopio, Joensuu and Rovaniemi. Population decline exceeding 14% is frequent in municipalities along the border to Russia but can also be observed in other rural areas. There are some significant exceptions. Population growth in Kittilä in Lapland is linked to the development of tourism in Levi, and to the presence of the largest gold mine in Europe. It is also notable that Inari municipality in northern Lapland has a growing population, mainly capitalising on its natural amenities, cultural activities and the presence of the Sámi Education Institute (SAKK)<sup>4</sup>.

Recital 45 of the ERDF and Cohesion Fund regulation for the 2021-2027 specifies that “the ERDF should pay particular attention to [...] areas that have suffered from an average annual population decrease of at least 1% of inhabitants over the 2007-2017 period”. This only concerns three municipalities in the Swedish part of the NSPA (Övertorneå, Dorotea and Arjeplog), totalling just over 1% of the NSPA population. In the Finnish part of the NSPA, this concerns 57 out of 111 municipalities, which are home to almost 20% of the NSPA population<sup>5</sup>. Situations therefore appear radically different when one applies that Cohesion Policy criterion for rapid population decline.

This does not necessarily imply that demographic challenges are less important in Swedish NSPA regions. Municipalities across the NSPA have experienced continuous population decline over multiple decades (see Map 4). This “thinning out” of population leads to population levels that makes it difficult and costly to maintain the provision of basic public services. The continuous population decline across most inland municipalities of Sweden for more than 60 years generates doubts on the viability of their local

<sup>4</sup> <https://thebarentsobserver.com/en/indigenous-peoples-life-and-public/2021/06/small-sami-town-accelerating-its-population-growth>

<sup>5</sup> Source: own calculation based on data from Statistics Finland and Statistics Sweden.

communities. By comparison, municipalities with alternating periods of population growth and decline can be found across most parts of the Finnish NSPA.

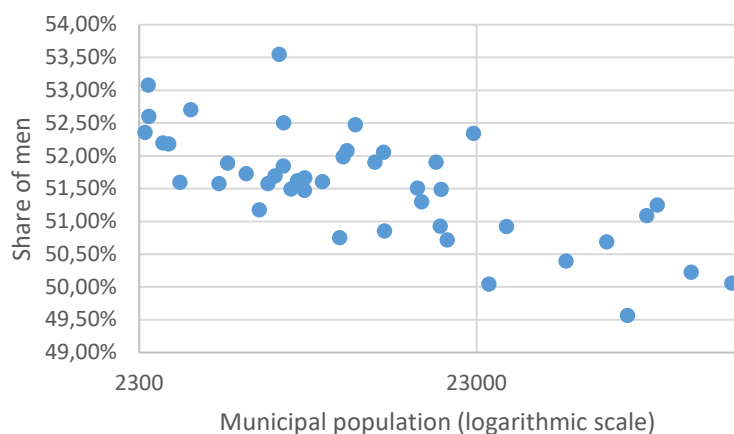
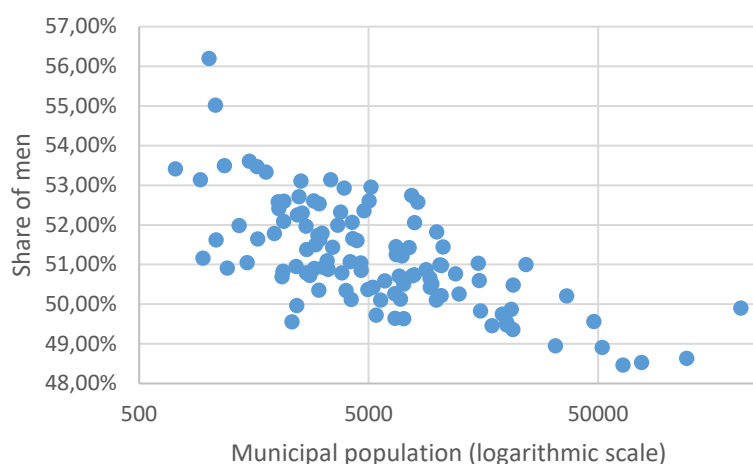
Considering the long distances within individual NSPA municipalities and labour markets, it is useful to consider demographic trends at the level of individual settlements. Such data often more accurately reflect demographic trends as they are perceived by the NSPA population. Population change at the level of individual settlements impacts the provision of essential services by municipal authorities and the daily lives of their inhabitants. One first observes that all 11 urban agglomerations with a population above 30,000 inh. have been growing in the last decade (2011-2019) <sup>6</sup>. This growth exceeds 10 % in 4 cities: +15.9 % in Östersund (Jämtland), +13% in Joensuu (North Karelia), +12.7% in Sundsvall (Västernorrland) and +12.1 % Umeå (Västerbotten). Among towns in the range 20 to 30,000 inhabitants, only Piteå (Norrbotten) is growing (+3%). The other towns experience population decline: -9,4% in Savonlinna (South Savo), -5.5 % in Kemi (Lapland), -2 % in Kajaani (Kainu). Settlements at the outskirts of the labour markets around all these towns and cities are almost systematically declining. The main exceptions are in Middle Norrland and in the southernmost part of North Ostrobothnia. In the rest of the NSPA, only very few settlements beyond commuting range from a larger urban centre are growing.

The 2009 foresight study noted that the NSPA is characterised by a major gender bias (see Box 1 p. 14). This bias still prevails, and mainly concerns smaller municipalities (see Figure 1 and Figure 2 below). Between 2011 and 2021, proportions on men have increased in almost all Swedish NSPA municipalities. In Finnish municipalities, the trends are more diverse. Some municipalities in Lapland (e.g. Inari and Kittilä) have for example witnessed an increase in the share of women.

The overrepresentation of men is particularly pronounced among young adults. In the Swedish NSPA as a whole, men represent 55,3 % of inhabitants in the 20 to 24 age group. The corresponding rate for the Finnish NSPA is lower: 52,9 %. However, some of the highest local ratios are found in Finnish NSPA municipalities, with a maximum of 74,3% in Toholampi (Central Ostrobothnia). Admittedly, these extreme values are partly linked to the smaller size of Finnish municipalities. Almost two thirds of the population aged 20 to 24 in the municipalities of Jokkmokk, Arvidsjaur and Arjeplog in inland of Norrbotten are men. The main explanatory factor behind the high ratios of men in small peripheral municipalities is, according to the literature, that young women move out to study and to seek employment to a greater extent than young men. Some commentators note that proactive strategies to attract more women would also be needed in larger NSPA urban centres such as Luleå. In the absence of such measures, they claim that the lack of women will become a development bottleneck (Westin, 2020).

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<sup>6</sup> In this paragraph, all figures relate to settlements, i.e. populated places delineated on the basis of continuous built-up areas.

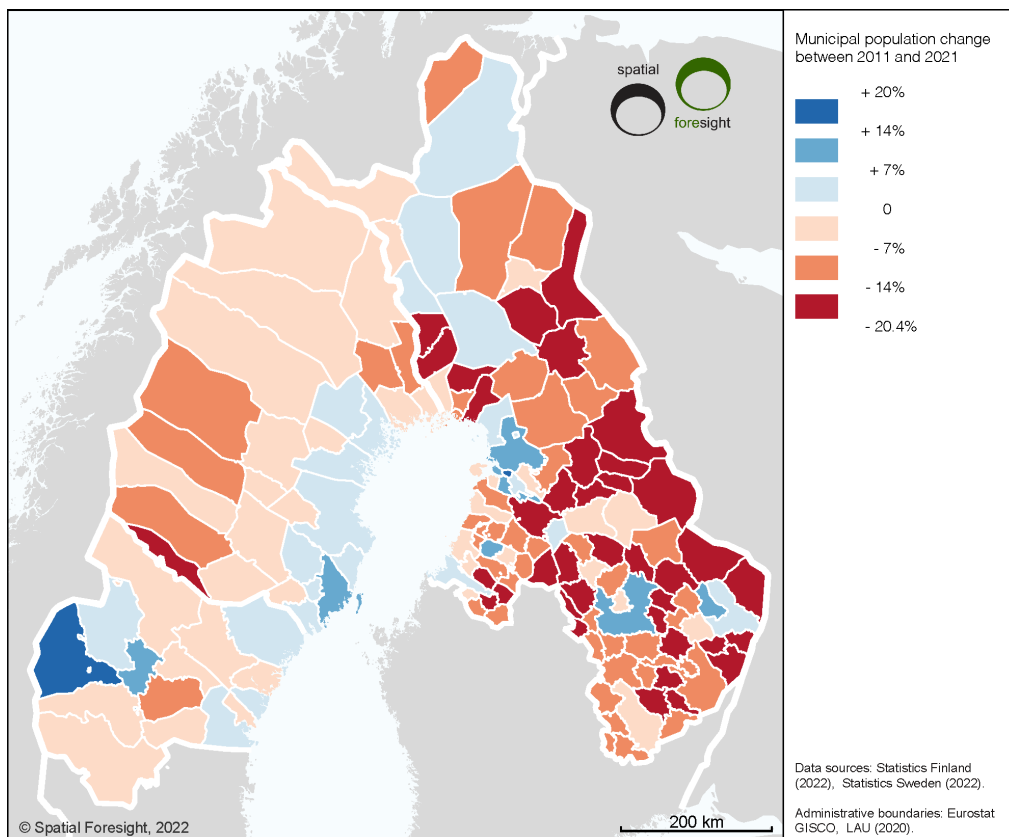
**Figure 1 Swedish NSPA municipal population and share of men (2021)****Figure 2 : Finnish NSPA municipal population and share of men (2021)**

*NSPA municipalities with a low population tend to have a higher proportion of men*

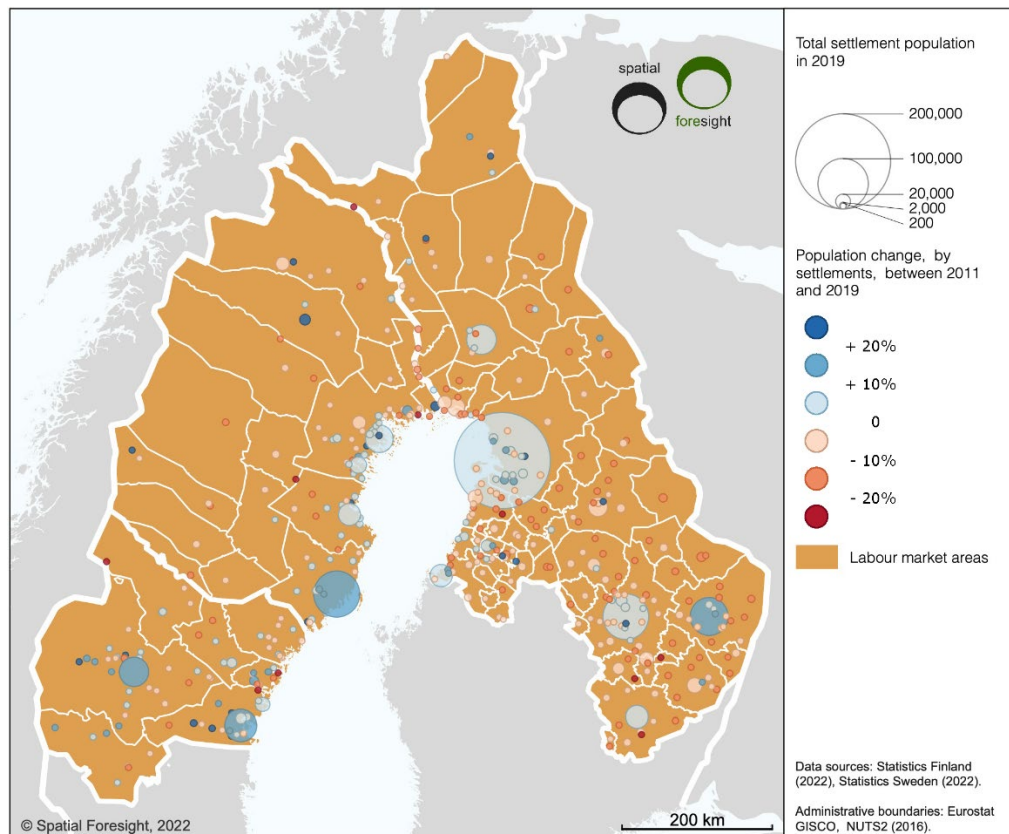
Ageing is another major challenge in the NSPA area. The age structures of the population of rural municipalities and main urban centres are in this respect quite different (see Map 5). Old age dependency ratios (i.e. population above 65 as a ratio of working age population, 15 to 64 years old), of around 25-27 % are observed in the Umeå and Oulu regions, as well as in the winter tourism hotspot Åre. They are comprised between 32 and 36 % in cities urban centres such as Kuopio, Joensuu, Luleå, Östersund, as well as in the mining city of Kiruna. However, they exceed 55 % in most of the inland of the Swedish NSPA, and 70% in 35 rural municipalities of the Finnish NSPA.

In many NSPA municipalities, old age dependency ratios have increased rapidly between 2011 and 2021 (see Map 6). 61 Finnish NSPA municipalities, with a total population 335 000 inhabitants, have experienced increases of more than 20 percentage points (pp). In the Swedish NSPA, highest increases in old age dependency ratios are found in inland municipalities such as Övertorneå (+27 pp), Haparanda (20p), Pajala, Dorotea, Övertorneå, Arjeplog, Jokkmokk, Malå, Norsjö and Strömsund (+10 to +14 pp). These major increases in proportions of seniors generate challenges for the municipal provision of health and elderly care services.

**Map 2 : Municipal population change (2011- 2021)**

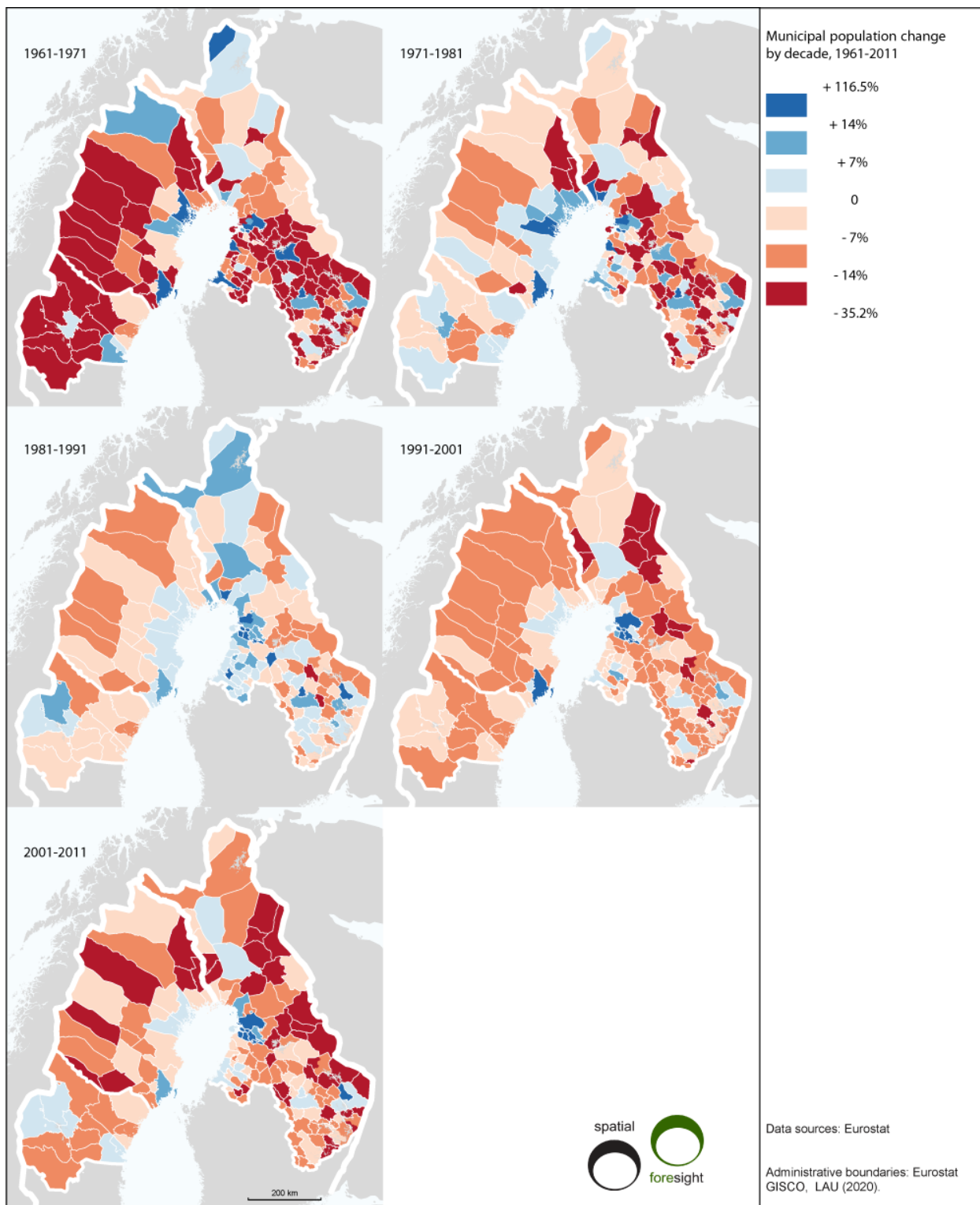


**Map 3 : Demographic change of individual settlements (2011-2019)**

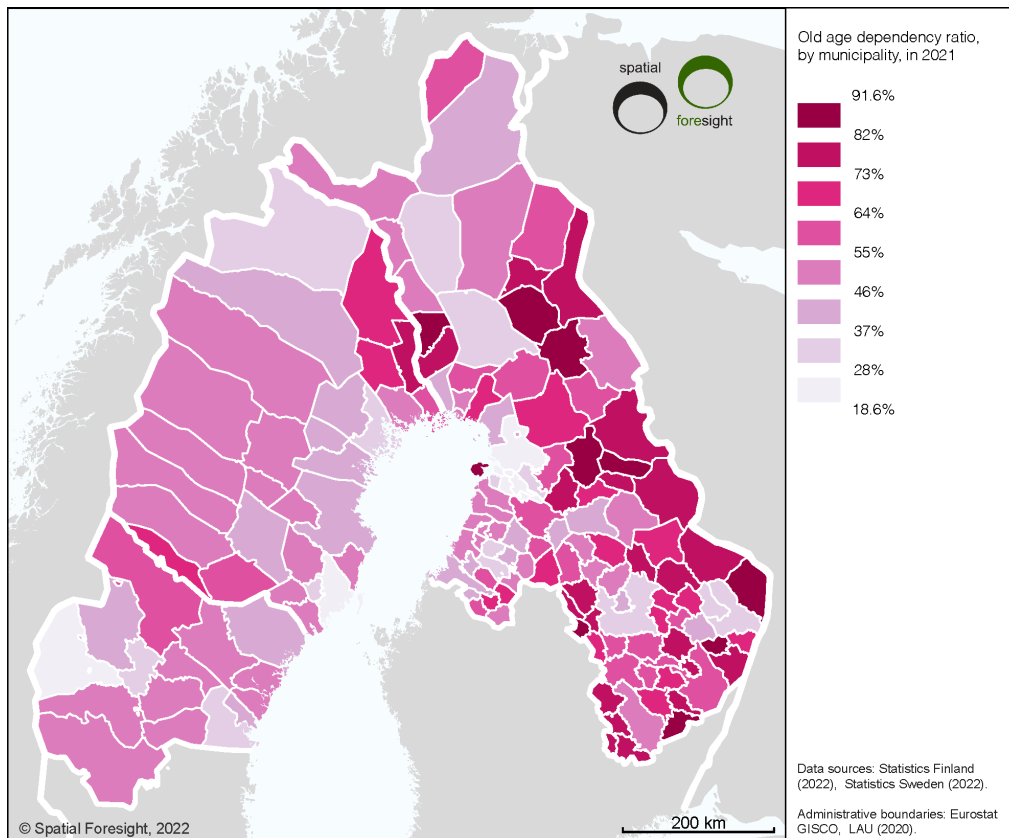




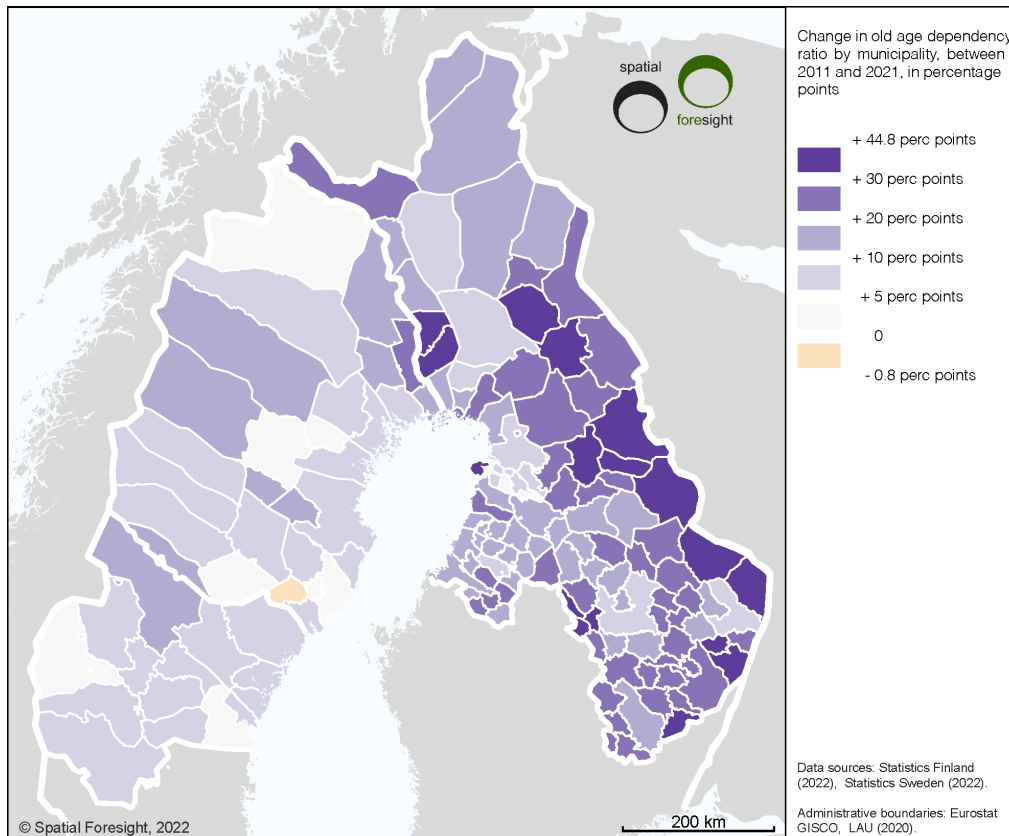
**Map 4: Municipal population change by decade (1961-2011)**



**Map 5 : Municipal old age dependency ratios (2021)**



**Map 6 : Change in municipal old age dependency ratios (2011-2021)**



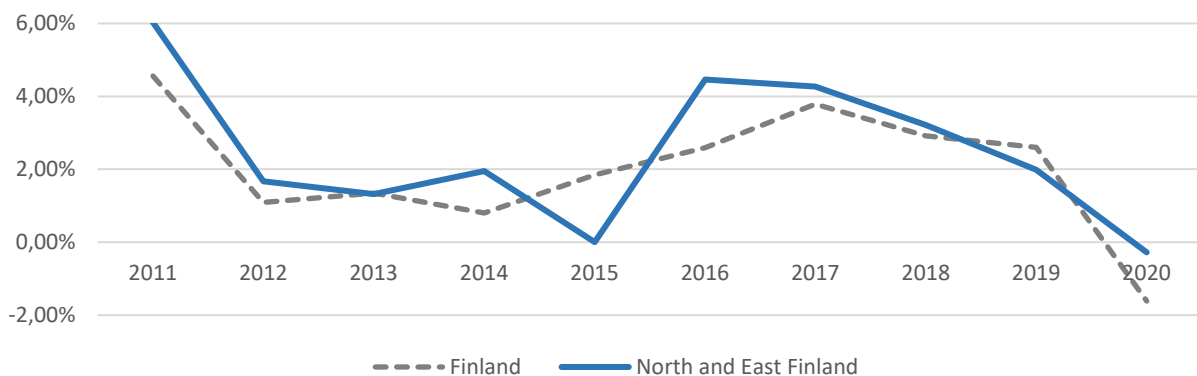


### 2.3. Economic development overcoming challenges of sparsity and long distances

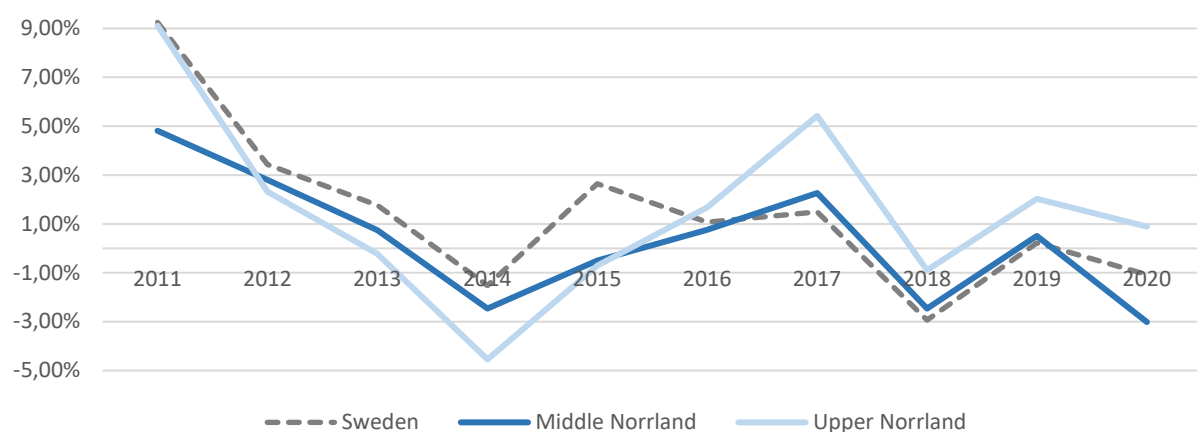
In 2019, GDP per inhabitant values in NSPA regions were between 6 % and 60 % above EU27 average values. Lowest values were observed in Finnish regions of South Savo and North Karelia. Norrbotten county in Sweden stands out with particularly high values. This is the only NSPA region with a GDP per inhabitant value above the national average. This is largely linked to high incomes from mining activities and industrial processing plants. The high values therefore do not necessarily faithfully reflect the extent to which added value generated contributes to regional welfare.

Economic growth in the Swedish and Finnish NSPAs are highly correlated with national growth figures (see Figure 3 and Figure 4). Finnish NSPA regions' low growth in 2015 is linked to the effects of reduced trade with Russia. However, this was compensated for by growth above national average in 2014 and 2016. The Swedish NSPA region of Upper Norrland displayed some more volatility than other Swedish regions between 2014 and 2017, with growth rates markedly above national average values in 2011 and 2017, and markedly below national average values during the crisis year of 2014. Since 2017, growth rates in Upper Norrland have consistently had been above national average values. Middle Norrland growth values have, in comparison, been closer to national average values.

**Figure 3 : Yearly Gross regional product growth in Finland and Finnish NSPA, 2011-2021**



**Figure 4 : Yearly Gross regional product growth in Sweden and Sweden NSPA, 2011-2021**

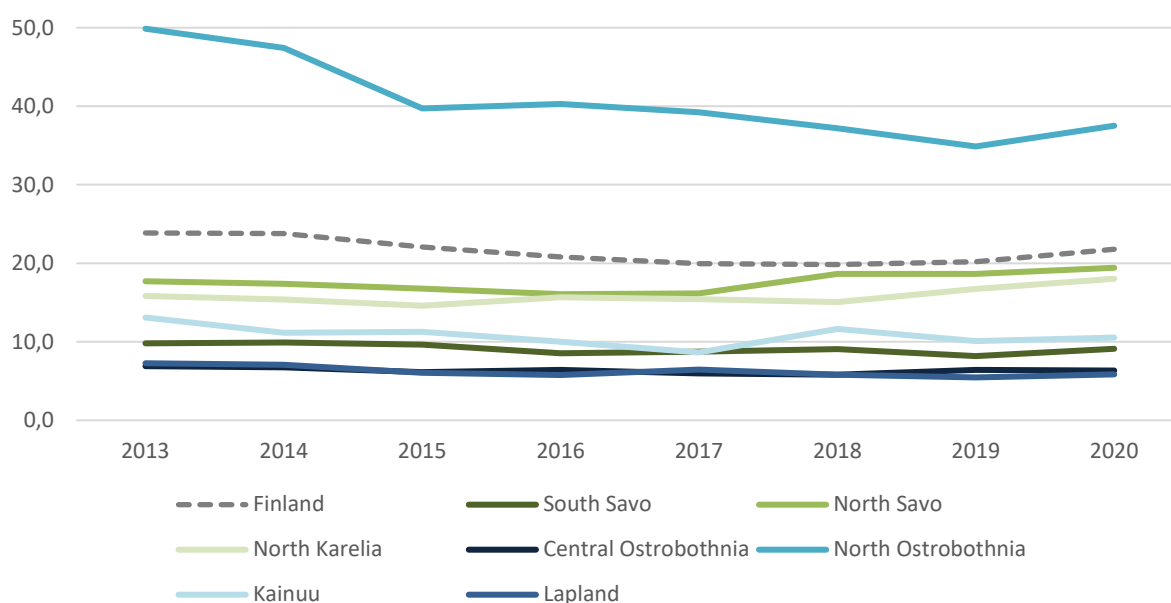


The economic development of the NSPA region is in recent years characterised by an acceleration of major industrial investments, attracted by access to hydroelectricity, extensive available land and well-established industrial traditions. These major new investments are particularly numerous in Upper Norrland (see Boxes 4 to 7 below). They constitute game changers for the localities and regions hosting these new production plants, as they are expected to generate thousands of new jobs. A major challenge will be to fill these positions. Measures to attract talents from other regions and countries and adapted programmes to train locals are already being implemented. It is also necessary to upgrade the main European transport corridors running through the NSPA region.

The NSPA in parallel continues to profile itself as a region hosting cutting edge research and development activities, in connection to main manufacturing industries but also in other fields. The North Ostrobothnia region and its capital city Oulu stand out as the main R&D hub in the Finnish NSPA. In 2020, it concentrated 11% of total R&D expenditure in Finland. This makes it the second most important centre for R&D activities in Finland after Helsinki, with a volume of activities equivalent to that observed in Tampere. As in Tampere, this share of national research activities has declined from 13-14 % in 2013, while a corresponding increase is observed in the Helsinki region. However, if one compares regional R&D expenditure of enterprises figures to Gross Value Added (GVA) of enterprises, the North Ostrobothnia has consistently had the highest ratio in Finland between 2013 and 2020 (see Figure 5 below). Its R&D intensity is 30 % higher than in Tampere, and 70 % higher than in Helsinki.

Other Finnish NSPA regions have R&D intensity that are below national average values. However, the gap has narrowed considerably when considering values for North Karelia and North Savo. There are examples of world leading research in these regions. For example, FinVector, a company that manufactures gene therapy drugs, has been operating in Kuopio (North Savo) for 25 years. As part of the successful development of a new treatment for bladder cancer, this company has hired 200 additional staff members between 2018 and 2021. It foresees to hire 100 more persons in the near future. (Miettinen et al., 2022)

**Figure 5: R&D intensity of enterprises in Finnish NSPA regions**



Unit: Euros of enterprise R&D spending per thousand euros of enterprise gross value added.

Source: own calculations based in Statistics Finland data

**Box 3: Nokia expanding its R&D activities in Oulu (North Ostrobothnia)**

Nokia has positioned itself as one of the main players on the 5G market and reports strong growth<sup>7</sup>. As part of this expansion, it has decided to invest in a new 72,000 sqm campus in Linnanmaa in Oulu (North Ostrobothnia) to enable a continued innovation and development at the forefront of 5G technologies. The investment is estimated to “hundreds of millions of euros”. Its employment effect is “not yet estimated”<sup>8</sup>. In 2021, Nokia reported to have 2,500 employees in Oulu.

The new campus will allow Nokia to enhance its synergies with institutions such as the University of Oulu, the Technical Research Centre of Finland, Oulu University of Applied Sciences and a number of other companies operating in the same field. The ICT sector in Oulu is reported to employ nearly 20 000 professionals (Oulu Chamber of Commerce and Lapland Chamber of Commerce, 2022)

The campus is expected to open in 2025.

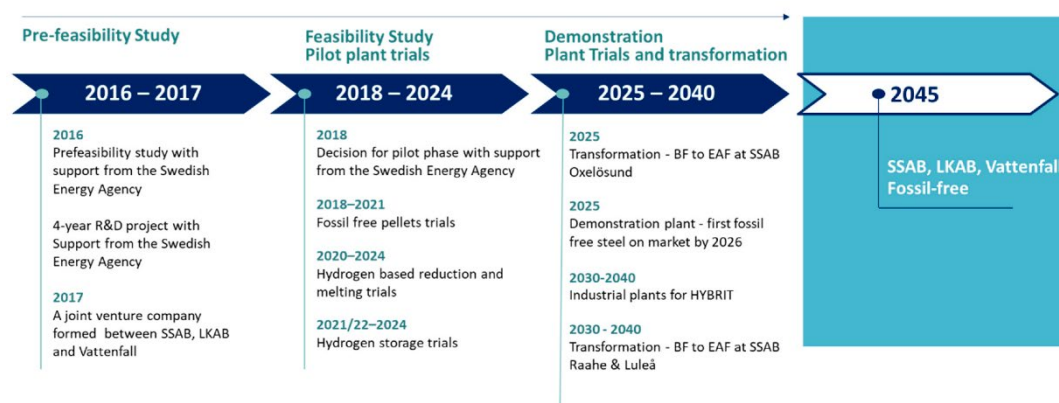
**Box 4: Development of fossil-free steel value chain in Norrbotten and in North Ostrobothnia**

The Nordic and United States-based steel company SSAB, government owned Swedish mining company LKAB and power company Vattenfall are jointly setting up the world’s first completely fossil-free value chain for iron and steel production. For this purpose, they set up the joint company HYBRIT in 2016.

A series of innovative processes are being developed and implemented:

- Successful trials to produce iron ore pellets with fossil-free fuels in Malmberget (Norrbotten) in 2020,
- A pilot plant for the transformation of iron ore pellets into “sponge iron” using fossil-free hydrogen in Luleå (Norrbotten). This process emits water instead of CO<sub>2</sub>,
- A demonstration plant for industrial-scale production of fossil-free steel production in Gällivare (Norrbotten), which is planned to ready in 2026.

The timeline for the HYBRIT transition to fossil-free steel is illustrated in the figure below. It will ultimately lead to the replacement of Blast Furnaces (BFs) by Electric Arc Furnaces (EAFs) in the steel production sites of Luleå (Norrbotten) and Raahе (North Ostrobothnia).



<sup>7</sup><https://www.reuters.com/business/media-telecom/nokias-quarterly-profit-beats-5g-demand-2022-04-28/>

<sup>8</sup><https://www.businessoulu.com/en/for-media/news/construction-on-a-nokia-project-worth-hundreds-of-millions-begins-in-linnanmaa-early-next-year.html>

H2 Green Steel is a competing initiative which was inspired by the R&D undertaken by Hybrit. H2 Green Steel ambitions to open a production site in Boden in 2024, and to produce 5 million tons of steel annually by 2030. It is developed by a group of private investors including the Swedish truck manufacturer Scania and the German producer of spare parts for the automotive industry Bilstein. This project benefits from extensive EU support, in the form of EIB-guaranteed loans. According to some commentators, these loans would amount to 70% of the total investment<sup>9</sup>. The EU therefore assumes a large part of the risk. In addition, H2 Green Steel received 3 million euro in support from the EU Recovery and Resilience Facility<sup>10</sup>. The company announces that it will create 2,500 jobs in its facility in Boden (Norbotten) in 2024 and may generate around 10,000 new jobs on the medium to long term<sup>11</sup>.

Sources: <https://www.hybritdevelopment.se/> and Pei et al. (2020)

### Box 5: Northvolt Industrial Project in Skellefteå (Västerbotten)

Northvolt is building Europe's largest battery factory in Skellefteå in Västerbotten (73,000 inhabitants). This location was primarily chosen because of access to abundant clean energy from hydropower and windmills. In addition, Skellefteå could offer cheap building land. Discussions are also ongoing on the possibility of supplying some of the metals needed in battery production such as nickel and cobalt from mines in northern Sweden and Finland.

This factory is expected to hire more than 3,000 staff members and generate between 1,500 and 2,000 indirect jobs in the region. So far, most employees come from northern Sweden or from abroad. In July 2021, the factory had 2,000 employees from 85 countries. Attempts to recruit staff from areas with high unemployment in southern Sweden have so far not been successful<sup>12</sup>. An International English School was opened in Skellefteå in 2019 in view of providing educational services for an increasing number of families with non-Swedish background.

The investment was supported by the European Investment Bank, which provided a loan of 350 million euros<sup>13</sup>. Northvolt also foresees to build factories in the German regions of Lower Saxony ("Northvolt Zwei") and Schleswig-Holstein ("Northvolt Drei").

Its size and the extensive media attention it has attracted has also changed North Sweden's image as a potential destination for industrial investments<sup>14</sup>.

Sources: Skellefteå municipality, Northvolt

<sup>9</sup> <https://timbro.se/smedjan/hybrit-eller-hybris/>

<sup>10</sup> <http://www.energimyndigheten.se/nyhetsarkiv/2022/h2-green-steel-forbereder-for-fossilfri-stalproduktion-i-boden/>

<sup>11</sup> <https://sverigesradio.se/artikel/planer-for-storskalig-stalproduktion-i-boden>

<sup>12</sup> <https://www.sydsvenskan.se/2021-07-09/skanskt-ointresse-for-valbetalda-jobb-i-norr>

<sup>13</sup> <https://www.eib.org/en/press/all/2020-208-european-backing-for-northvolt-s-battery-gigafactory-in-sweden>

<sup>14</sup> <https://www.rvn.se/contentassets/38281cb0439d4d07bdaf99fc0bb9c35e/regionala-effekter-i-rvn-av-northvolts-etablering-rapport-lev3.pdf>

### **Box 6: Investments for enhanced recirculation of metals at the Boliden Rönnskär plant (Västerbotten)**

The Boliden Rönnskär smelter in Västerbotten county is one of the world's largest copper smelters. It recycles metal from electronic waste. An investment programme of € 133 million has been implemented between 2015 and 2020 to increase the smelter's capacity, limit environmental impacts of the process and to extract a wider range of metals from the electronic waste material.

To this end, a large underground repository was constructed right next to the smelter. In addition, a new leaching plant was constructed. 'Leaching' is the process that converts metals into soluble salts. The new leaching plant makes it possible to extract lead, copper and zinc sulphates from residual material of copper production. This also makes it possible to reduce the amount of waste considerably.

The investments make it possible for Boliden to remain at the forefront of innovation in the field and to preserve its international competitiveness.

Sources: <https://im-mining.com/2021/09/28/boliden-invests-160-million-in-leaching-plant-underground-repository-at-ronnskar/>

### **Box 7: Facebook datacentre in Luleå**

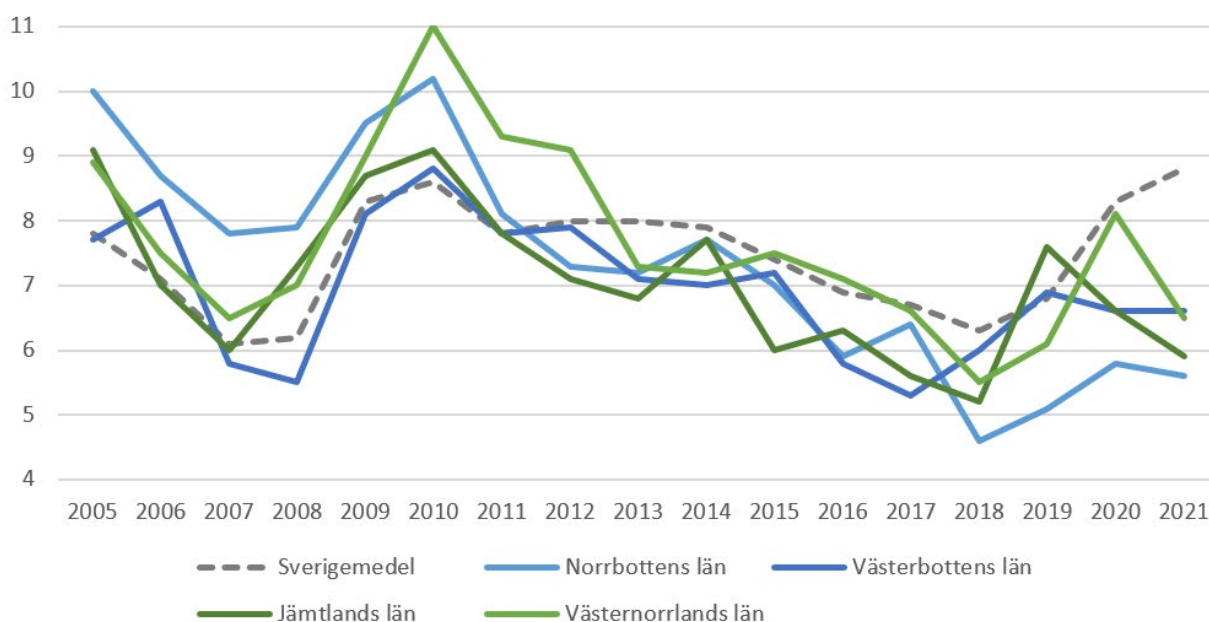
Luleå (Norrbotten) hosts Facebook's first European data warehouse since 2013. This data warehouse has since been expanded, doubling its size.

According to a study by IHS Markit, Facebook has purchased 1,2 billion EUR worth of goods and services between 2011 and 2018. This spending is linked to construction activities, investments and operational activities. It is estimated to have generated more than 780 direct jobs, 430 indirect jobs and 249 induced jobs.

The Swedish National Audit Office is conducting an audit of energy tax reductions that were introduced in 2017 to attract investments in such data warehouses. Questions have been raised regarding actual numbers of jobs created, and the extent to which energy consumption in these warehouses could jeopardize other industrial development projects such as the production of batteries, steel and cement with no greenhouse gas emissions. The result of this audit is expected in September 2022.

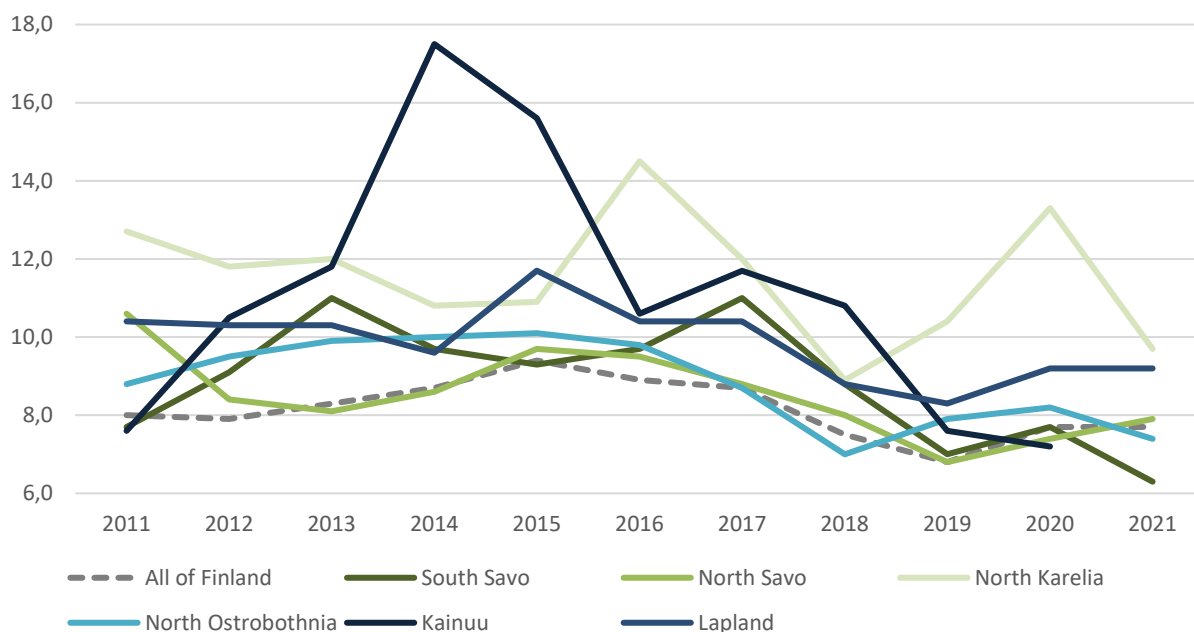
Sources: DN, IHS Markit (2019)

Unemployment rates in Swedish NSPA regions have mostly been lower than national average values since 2011 (see Figure 6). However, figures for the 2009-2011 period reflect these regions' high degree of exposure to external shocks. Unemployment rates soared as a result of the financial crisis, especially in Västernorrland and Norrbotten. Effects of the Coronavirus epidemic on unemployment levels can only be identified in Västernorrland county. Regional analysts refer to a higher proportion of inhabitants with a weak connection to the labour market to justify this specificity of Västernorrland county (Holmgren et al., 2022). However, unemployment fell again to levels close to those observed before the COVID crisis in 2021. In other Swedish NSPA counties, unemployment has fallen rapidly since 2019 (Jämtland), remained stable (Västerbotten) or increased moderately from low levels (Norrbotten), while it has increased rapidly at the national level.

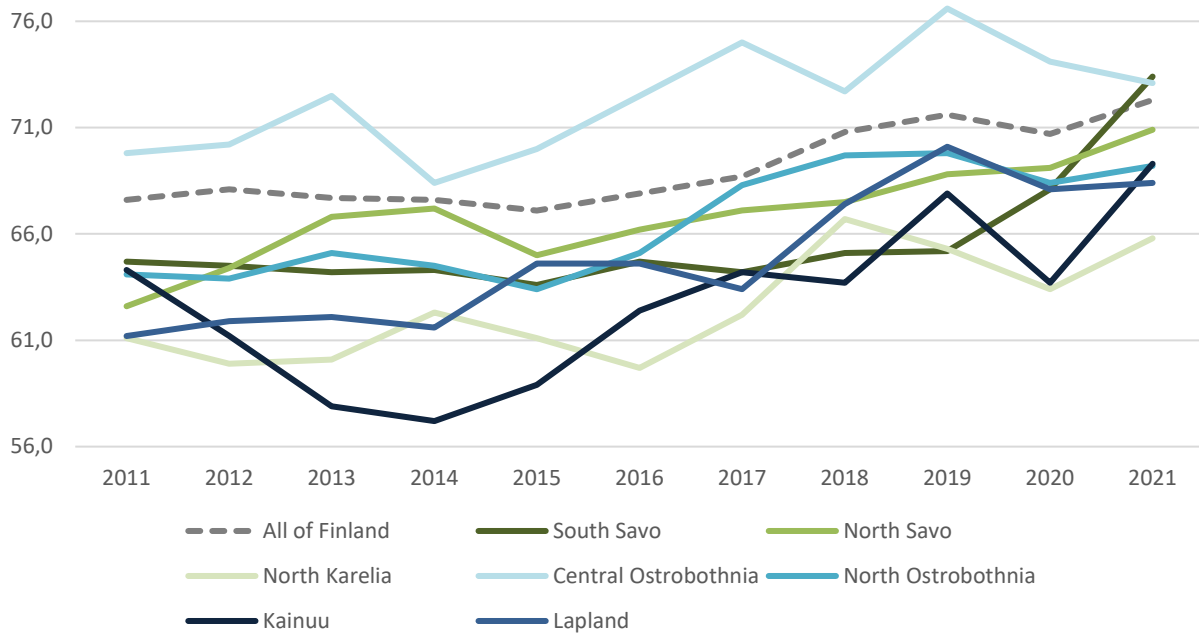
**Figure 6: Unemployment rates in Swedish NSPA regions (2005-2021)**

Source: ekonomifakta.se

Unemployment levels in Finnish NSPA are generally higher than national average values (see Figure 7). The high unemployment rates in Kainuu in 2014 illustrate the region's particular exposure to external shocks. Similarly, North Savo experienced peaks in unemployment levels in 2016 and 2020. However, the rapid return to pre-crisis unemployment levels suggests that the adaptive capacity of local and regional economies is good. A downward trend of unemployment levels is observed since 2015-2016. The same factors explain increases in employment rates since 2015 (since Figure 8). These remain below national average values, except in Central Ostrobothnia and, in 2021, South Savo.

**Figure 7: Unemployment rates in Finnish NSPA regions (2011-2021)**

Source: Statistics Finland. Time series for Central Ostrobothnia are not available

**Figure 8: Employment rates in Finnish NSPA regions (2011-2021)**

Source: Statistics Finland

Throughout the NSPA, shortages of skilled labour are identified as a potential major obstacle to economic development. The Swedish public employment service notes that planned investment may fail to generate foreseen results unless labour force flows in direction of these regions are established<sup>15</sup>. As unemployment rates soared across Sweden during the COVID pandemic, employment opportunities in the NSPA region were identified as a possible lifeline. However, the Confederation of Swedish Enterprise notes that a holistic approach to these challenges is still missing<sup>16</sup>. The Swedish government appointed a “coordinator for social change around major company establishments and company expansions in Norrbotten and Västerbotten” in December 2020<sup>17</sup>. His task is to bring together actors from different sectors and geographic levels, private companies, representatives of the civil society. The final report of this coordinator’s assignment is expected in November 2022.

East and North Finland is confronted to paradoxical combinations of high unemployment rates in a significant share of local labour markets and labour shortages. As in Sweden, a need for more holistic approaches of this challenge is identified. Initiatives to this end can be identified at the regional level, e.g. in North Karelia (see Box 8).

<sup>15</sup> <https://arbetsformedlingen.se/om-oss/press/pressmeddelanden?id=82992E5A666796AD>

<sup>16</sup> [https://www.svensktnaringsliv.se/blogg/kompetensforsorjning/holistiskt-angreppssatt-kravs-for-att-mota-norra-sveriges-rekryte\\_1177163.html](https://www.svensktnaringsliv.se/blogg/kompetensforsorjning/holistiskt-angreppssatt-kravs-for-att-mota-norra-sveriges-rekryte_1177163.html)

<sup>17</sup> <https://www.regeringen.se/pressmeddelanden/2020/12/regeringen-tillsattsamordnare-for-samhallsomstallning-vid-storreforetagsetableringar-och-foretagsexpansioner-i-norrbotten-och-vasterbotten/>



**Box 8: Labour market mismatches in North Karelia**

The ELY Centre of North Karelia estimates that labour market mismatches reduce the regional added value by 185 million euros, and tax revenue by 74 million euros. Multiple factors explain the extent of these mismatches. Most companies are too small to have a proactive strategy to improve access to competences. A local study estimates that only 19 companies have a human resources director. National policies for skills development and regional development are also managed by different ministries, leading to parallel initiatives and a sense of policy inconsistency at local level. The four development corporations that operate in North Karelian subregions have only recently started working on skills development. A Regional Council representative notes that the elaboration of the regional skills strategy for 2019-2021 was driven by the education sector, and that this led to a low involvement of regional local businesses.

It therefore appears that the governance of skills development can be improved. In this process, the role of subregional development corporations will be expanded. This should make it possible to adopt a more holistic approach at the local level. The region also seeks to capitalise better on the strength of its educational institutions (University of Eastern Finland, Karelia University of Applied Sciences, Riveria vocational school). The objective is to enhance the coherence of efforts to promote regional development, labour market policies and the design of education and training programmes.

Source: Nordregio (2020)

Another identified development bottleneck is insufficient or inadequate transport infrastructure. The core issue has been the completion of the railway infrastructure along Bothnian corridor (see Box 1 p. 14), with possible extensions e.g. in direction of Kiruna and the ice-free Norwegian port of Narvik. The missing links are primarily on the Swedish side. These are further described in Box 9 below. The recent commitment of the Swedish government to finalise coastal railway connections between Umeå and the Finnish border is linked to the extent of industrial investments in the region. These policy developments have also been supported by the formal “Bothnian Corridor” network, which is a cooperation between seven regions (including the four Swedish NSPA regions). The objective is to combine the provision of adequate transport infrastructure for industrial development with the possibility to bring coastal towns and cities closer to each other. This may for example make it possible to extend labour market areas, and to facilitate the provision of services of general interest such as health and higher education.

These strengthened ambitions for infrastructure development in the NSPA have been reflected at the European level. The European Commission’s proposal for revised Union guidelines on the development of the TEN-T of December 2021 foresee that the ScanMed rail corridor will extend along the Bothnian coast from Stockholm to Oulu, with an additional connection between Luleå and Narvik through Kiruna<sup>18</sup>. This implies a considerable extension of the corridor, which currently does not go further north than the Stockholm region and southern Finland<sup>19</sup>. Similarly, the proposed guidelines include the extension of the North Sea Baltic rail corridor from Helsinki to Luleå through Oulu. This rail corridor previously did not extend beyond Tallinn in Estonia<sup>20</sup>.

<sup>18</sup> <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=COM%3A2021%3A812%3AFIN>

<sup>19</sup> [https://ec.europa.eu/inea/sites/default/files/cefpub/cef\\_transport\\_2020-corridor-e\\_scandi-medite\\_metadata.pdf](https://ec.europa.eu/inea/sites/default/files/cefpub/cef_transport_2020-corridor-e_scandi-medite_metadata.pdf)

<sup>20</sup> [https://ec.europa.eu/inea/sites/inea/files/cefpub/cef\\_transport\\_2020-corridor-b-northsea-baltic\\_metadata.pdf](https://ec.europa.eu/inea/sites/inea/files/cefpub/cef_transport_2020-corridor-b-northsea-baltic_metadata.pdf)



### Box 9: The Bothnia and North Bothnia railway lines

For historical reasons, Sweden does not have a continuous railway line along the coast of the Bothnian coast. The main north south railway axis ('Stambanan') was for strategic military reasons built 50 km in the inland in 1880s and 1890s. As a result, it does not provide good connections between coastal urban centres. Furthermore, this unique single-track railway has a limited capacity and exposes industries to risks of traffic disruptions.

Swedish authorities have actively sought to upgrade rail infrastructure in the NSPA since the 1990s. The 190 km single track Bothnia Railway line south of Umeå was completed in 2010. Its main objective was to reduce travel times for interurban passenger traffic and to offer a competitive option for freight. The idea was that it would, jointly with Stambanan, offer a double track north-south railway axis.

The Bothnian Railway is considered not to have met its objectives, mainly as a result of insufficient investments on connecting railway lines. Subsequently, travel times between e.g. Stockholm and Umeå have not been reduced to the extent that was initially announced. Freight operators have also not used the infrastructure to the foreseen extent. This is partly a result of the decision to use the new European Rail Traffic Management System (ERTMS), which generates high costs for rail transport operators. However, the Bothnia railway has made it possible to extend commuting around Umeå.

The follow-up project, the North Bothnia Railway will make it possible to complete the Bothnian corridor servicing the Swedish and Finnish NSPA, as illustrated in the figure to the right. It is therefore presented as an infrastructure project that will help improve the overall coherence of the railway network. The Swedish government confirmed that it would go ahead with the entire North Bothnia



Source: [norrbotniabanan.se](http://norrbotniabanan.se)

Railway between Umeå and Luleå in July 2021<sup>21</sup>. Considering the large number of major industrial investments in Upper Norrland, and the importance of reaching Sweden's climate change mitigation targets, the Swedish government also commissioned a study on needs for further transport infrastructure investments in the region in February 2022<sup>22</sup>, e.g. improvements on the railway between Luleå and the Norwegian port of Narvik through Kiruna. This study will among other things explore the extent to which private investors could be expected to co-finance transport such infrastructure investments.

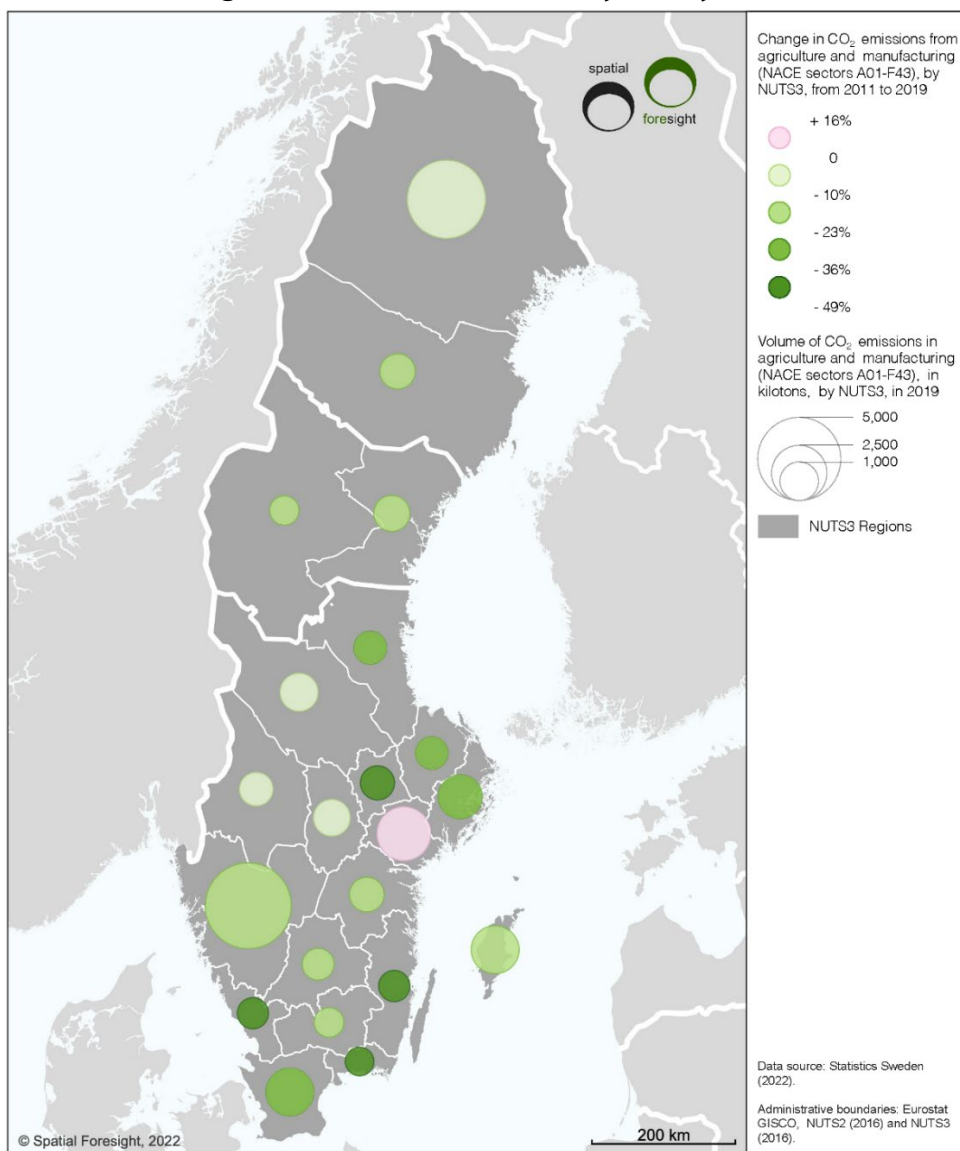
<sup>21</sup> <https://www.regeringen.se/pressmeddelanden/2021/07/regeringen-paskyndar-arbetet-med-norrbotniabanan/>

<sup>22</sup> <https://www.regeringen.se/regeringsuppdrag/2022/02/uppdrag-att-fordjupa-analysen-kring-forutsattningar-for-ett-genomforande-av-atgarder-i-transportinfrastrukturen-i-norrbottnens-och-vasterbottnens-lan/>

## 2.4. Climate change mitigation

Steel production is a major source of CO<sub>2</sub> emissions in the NSPA region. The SSAB plant in Luleå (Norrbotten) generated more than 3,000 ktons of CO<sub>2</sub> emissions (SSAB, 2021), i.e. more than 8% of Sweden total national emissions<sup>23</sup>. The SSAB plant in Raahе Steel generates 50 % of CO<sub>2</sub> emissions in the region of North Ostrobothnia<sup>24</sup>. This explains the high regional emission levels compared to other regions (see Map 7 and Map 8 below). While reductions in CO<sub>2</sub> emissions from industries have been weak to moderate in Swedish and Finnish NSPA regions between 2011 and 2019, the transition to fossil-free steel production may generate major reductions in years to come.

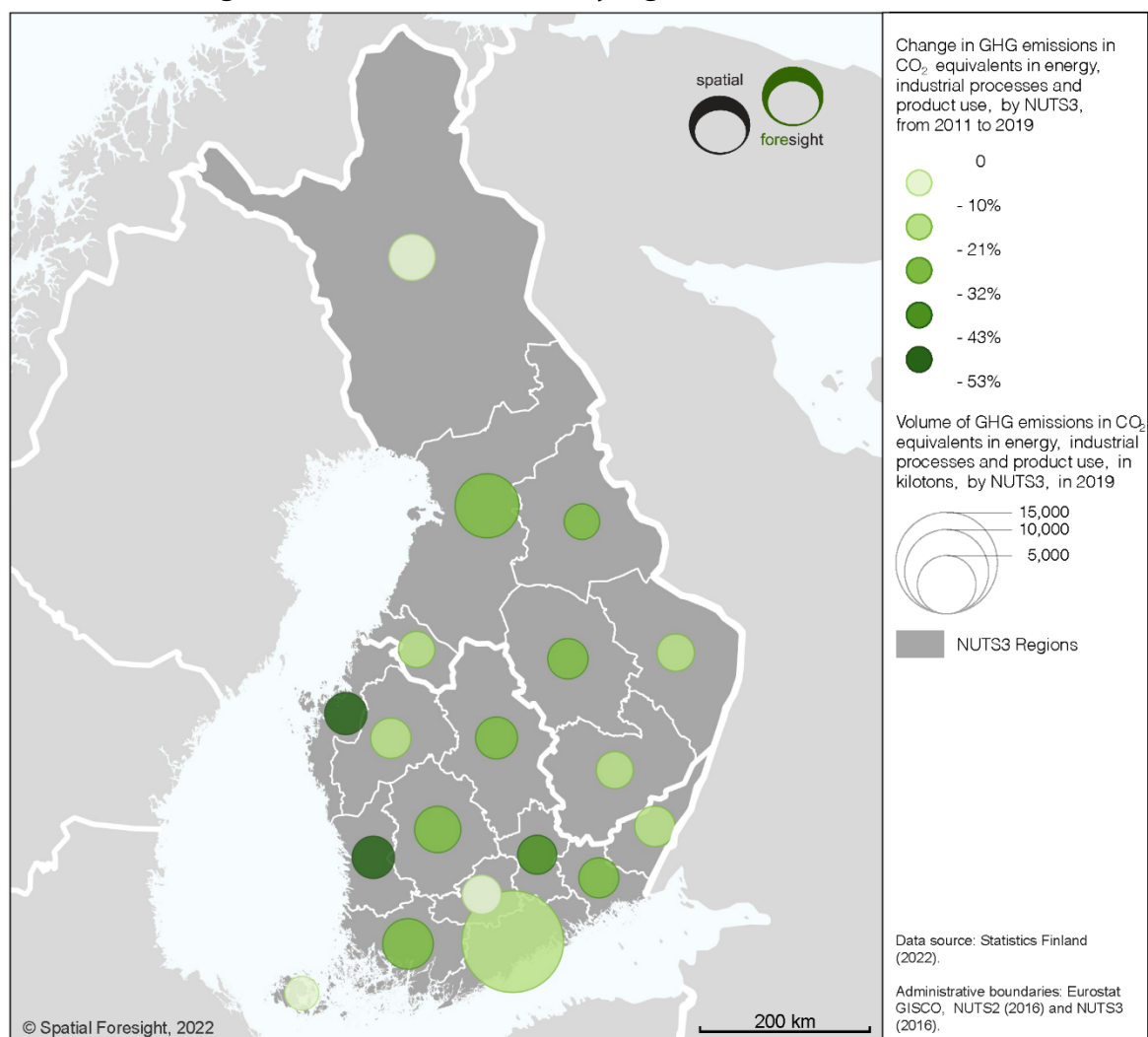
**Map 7: Volume of CO<sub>2</sub> emissions from agriculture and manufacturing in Sweden in 2019 and change between 2011 and 2019, by county.**



<sup>23</sup> Statistics Sweden, Total emissions and removals of greenhouse gases by greenhouse gas and sector 1990-2020

<sup>24</sup> <https://www.pohjois-pohjanmaa.fi/en/development/oulu-regions-smart-specialisation-2021-2024/>

**Map 8: Volume of CO<sub>2</sub> emissions from industrial process and product use in Finland in 2019 and change between 2011 and 2019, by region.**



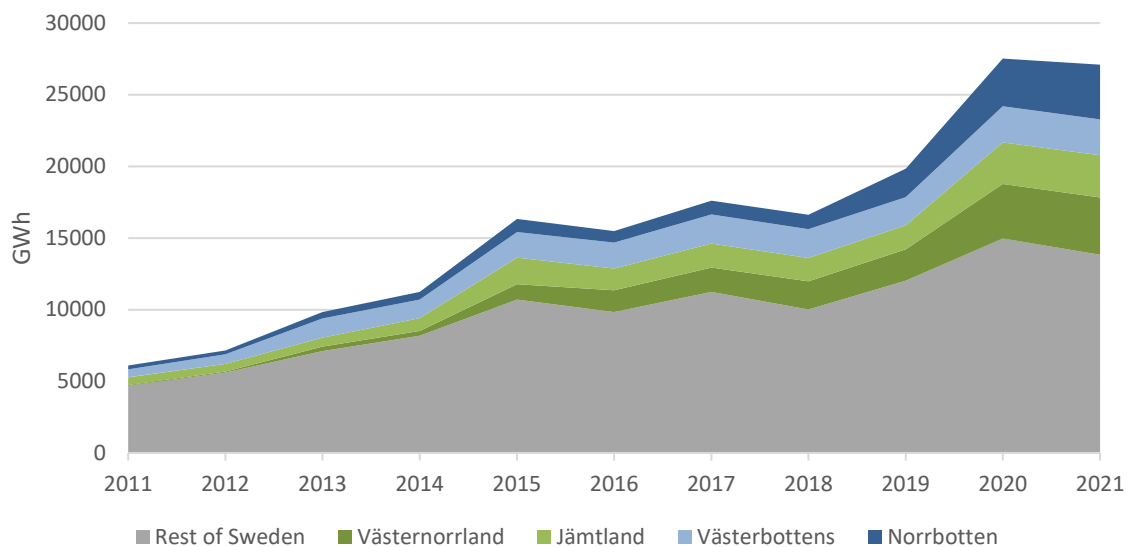
Another important issue in North Finland is the reduction of the use of peat. Peat consumption has been reduced significantly in the last decade. However, it still provides a significant proportion of district heating in Northern Ostrobothnia and Lapland, as well as in some non-NSPA regions. Peat burning generated about 10 % of Finnish greenhouse gas emissions in 2017. In 2015, peat extraction generated around 300 direct jobs and 250 indirect jobs in North Ostrobothnia, and around 170 direct jobs and 100 indirect jobs in Lapland. The average age of employees in this sector is high. Social challenges linked to the transition away from peat are therefore moderate. However, it may be challenging to identify sustainable sources of energy that could replace peat. The Finnish Innovation Fund Sitra has elaborated scenarios for its replacement by biomass, wind power and heat pumps. These scenarios demonstrate the need for carefully designed policies, to optimise the environmental benefits of the transition while minimising negative social and economic externalities. Environmental benefits may for example be limited if peat is replaced by wood pellets without critically assessing the forest cultivation and felling strategy. Social and economic benefits may be enhanced by developing innovative solutions to e.g. district heating using waste heat (SITRA, 2020).

It was until recently foreseen that North Ostrobothnia would host the Finnish NSPA's first nuclear plan. The decision to construct a nuclear power plant in Pyhäjoki was made in 2010. The planning and

construction were carried out by Fennovoima nuclear power company in cooperation with the Russian State Corporation Rosatom. In the context of the Russian invasion of Ukraine, Fennovoima cancelled the project in May 2022. This implies that alternatives will need to be found to this power plant, which was expected to generate 10% of Finland's energy production<sup>25</sup>.

The situation is quite different in the Swedish NSPA regions, which are net exporters of hydroelectric power. The production of electricity from windmills has increased rapidly in the last decade (see Figure 9 below). The NSPA regions' share in this production has increased from less than 25 % in 2011 to almost 50 % in 2021. Finnish NSPA regions have a similarly high share of wind power production: Northern Ostrobothnia alone reported to host around 40 % of this production in 2021 (Council of Oulu Region, 2021). Finland's largest wind farm was completed in Piiparinmäki in Kainuu in 2021. It has an approximate yearly production of 700 GWh per year<sup>26</sup>.

**Figure 9: Increasing share of Swedish NSPA regions in national electricity production from windmills**



Source: Swedish Energy Authority

Production capacity in NSPA regions will be further expanded in the years to come. The construction of Europe's largest set of contiguous windmill parks is ongoing at Markbygden close to Piteå (Norrbotten). When fully built, the three windmill parks will include up to 1,101 windmills and cover an area of 450 km<sup>2</sup>. They are expected to produce between 8 000 and 12 000 GWh of electricity per year<sup>27</sup>. The three parks are respectively owned by Chinese and American investors (park 1), and German investors (parks 2 and 3). These foreign investors have not bought the land on which the windmills are constructed, but will pay a portion of income from electricity production to national and local land owners<sup>28</sup>.

<sup>25</sup> <https://www.fennovoima.fi/en/fennovoima/why-fennovoima>

<sup>26</sup> <https://ilmatar.fi/en/finlands-largest-wind-farm-completed-in-piiparinmaki-and-soon-to-produce-1-of-the-countrys-electricity-ilmatar-to-launch-two-new-wind-power-projects-in-paltamo/>

<sup>27</sup> <https://svevind.se/en/markbygden-1101-english/>

<sup>28</sup> <https://www.vainsights.se/articles/682624/2bff5f15-40a7-444a-b175-188becc275d2>

## 2.5. Impacts of COVID

The COVID pandemic has had numerous effects, many of which are still unfolding. While an overview of these effects would be beyond the scope of the present report, three key aspects are described: impacts on the tourism industry, on air connectivity and on teleworking habits, Migratory flows and Recruitment

### 2.5.1. Tourism

The COVID pandemic has, as in other regions, had a major impact on tourism in NSPA regions (see Table 1). The decline in overnight stays between 2019 and 2020 was particularly strong in Swedish Upper Norrland. Other particularly hardly hit regions were Jämtland and Västernorrland in Sweden, and North Savo in Finland. More moderate decline rates of less than 10% could be observed in North Ostrobothnia, Kainuu and South Savo.

Finnish Lapland experienced a moderate decline in overnight stays between 2019 and 2020 (-15 %), but rapid growth between 2020 and 2021 (+253 %). A monthly tourism frequentation record was set in December 2021. Neighbouring Norrbotten region in Sweden only experienced an increase in overnight stays of 16 % in the same period, after a drop of 35 % the year before<sup>29</sup>. North Savo, North Ostrobothnia and North Karelia experienced increases of more than 40%. Overall, with the exception of Norrbotten, tourism in NSPA regions appears to have recovered levels of tourism frequentation equivalent or superior to those observed prior to the COVID pandemic in 2021.

**Table 1 : Change in overnight stays between 2019 and 2021**

Region	Change 2019-2020	Change 2020-2021
Norrbotten	-35 %	+16 %
Västerbotten	-34 %	+35 %
Jämtland	-23 %	+26 %
Västernorrland	-20 %	+21 %
Lapland	-15 %	+253 %
Kainuu	-8 %	+22 %
North Ostrobothnia	-7 %	+42 %
Central Ostrobothnia	-15 %	+31 %
North Karelia	-17 %	+42 %
North Savo	-24 %	+48 %
South Savo	-8 %	+20 %

Sources: Statistics Finland<sup>30</sup>, Statistics Sweden and Swedish Agency for Economic and Regional Growth (2020)

### 2.5.2. Flight connections and policies regarding flight service obligations

The COVID pandemic has had a major impact on domestic travelling, leading to dramatic drops in the number of flight connections from most NSPA airports (see Figure 10 and Figure 11). This reduces these regions' connectivity significantly. For many of them, road and rail alternatives to reach e.g. respective capital regions require long travel times. In the first months of 2022, all NSPA airports in Sweden had low numbers of flight connections than in the same period in 2019. Örnsköldsvik airport

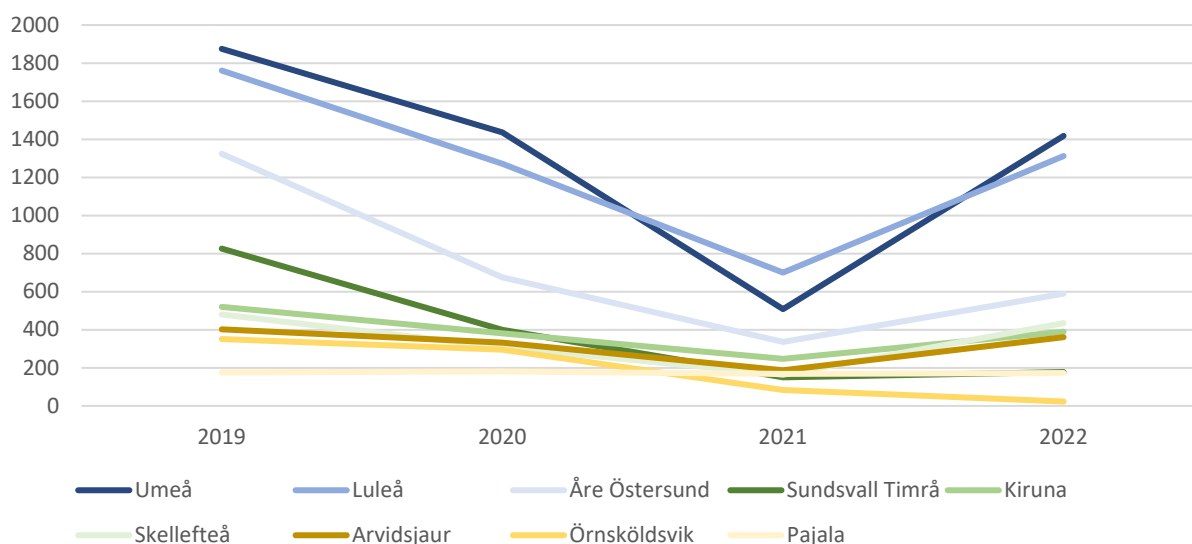
<sup>29</sup> Tourism frequentation in Norrbotten in 2019 was the highest ever registered. This should be taken into account when interpreting relative changes for following years.

<sup>30</sup> [https://www.stat.fi/til/matk/2020/matk\\_2020\\_2021-04-08\\_tie\\_001\\_en.html](https://www.stat.fi/til/matk/2020/matk_2020_2021-04-08_tie_001_en.html)

[https://www.stat.fi/til/matk/2021/12/matk\\_2021\\_12\\_2022-01-27\\_tie\\_001\\_en.html](https://www.stat.fi/til/matk/2021/12/matk_2021_12_2022-01-27_tie_001_en.html)

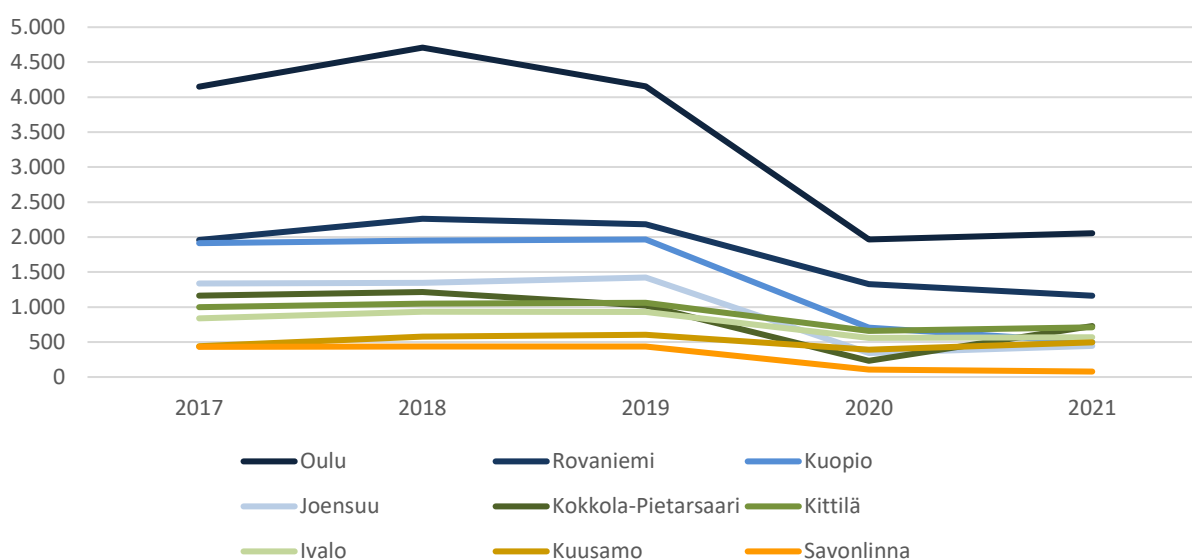
in Västernorrland had lost almost all traffic, as the company operating connection to Stockholm went bankrupt in January 2022. Åre Östersund airport in Jämtland had lost more than 50% of its traffic since 2019. Similarly, airports of Finnish NSPA regions experiences an important reduction in numbers of connections between 2019 and 2020 (see Figure 11). Number of flights remained mostly stable at a low level between 2020 and 2021.

**Figure 10 : Numbers of domestic landings between January and April at a selection of Swedish NSPA airport (2019-2022)**



Source: Swedish Transport Agency

**Figure 11 : Numbers of domestic landings at a selection of Finnish NSPA airports (2017-2021)**



Source: Finnavia

These effects of the COVID pandemic led national authorities to revise their policies for public procurement of flight connections. From April 2020, subsidised air connections to the airports of Örnsköldsvik, Östersund, Skellefteå and Sundsvall were established to “ensure travel opportunities that



are necessary for health care and other important social functions”<sup>31</sup>. Similarly, Finnish authorities set up a working group to preserve flight connections to Kokkola, Joensuu, Kajana, Jyväskylä and Kemi in August 2020. This working group recommended that transport services to these five airports should be subsidised<sup>32</sup>. The slow recovery of air traffic led to the Finnish Parliament to vote the prolongation of these subsidies in March 2022. However, support to flight connections is expected to be interrupted during the months of September and October 2022, until the new contracts start operating.

Swedish Transport authorities also seek to incorporate long term changes in travel behaviour initiated during the pandemic (Swedish Transport Administration, 2021). It notes that a large share of companies plan to reduce the number of business trips and to encourage climate-friendly alternatives to air transport. These observations contributed to the conclusion that flight connections to the airport of Gällivare, Arvidsjaur, Lycksele, Hemavan, Vilhelmina, Sveg, Pajala and Kramfors should continue to be subsidised from 2023 through public procurement contracts.

### 2.5.3. Teleworking habits, Migratory flows and Recruitment

New teleworking habits were established during the COVID epidemic. This has had three main parallel effects in NSPA regions. First, a significant number of workers have decided to settle in the NSPA on a permanent or seasonal basis, while keeping the same job. This allows them to benefit from the natural and social amenities of NSPA regions. It can also be economically beneficial, insofar as rents tend to be much lower in NSPA regions than in metropolitan areas.

A survey carried out by the Lapland region for example suggests that an increasing proportion of Finns would consider moving to Lapland. 22 % of Finns aged 18 to 59 indicate that they would be interested in moving to Lapland in Spring 2022, against 18 % in Autumn 2021. Attitudes are most positive among Finns below the age of 40<sup>33</sup>. Almost half of the respondents are interested in coming Lapland on a part-time basis, e.g. doing remote working or seasonal work. A similar enquiry carried out by the mining company LKAB in June 2021 suggests that 31 % of Swedes could consider moving to Norrbotten, 38 % of persons without employment and 42 % of persons in the age group 18 to 28 years. However, survey notes that more women than men would not move to Norrbotten “for all the money in the world” (42 % against 29 %)<sup>34</sup>.

Some regions are proactively supporting the emergence of coworking spaces. The Jämtland region supports the development of such spaces across the region. 11 coworking spaces are currently operating, many of which highlight their proximity to mountain areas<sup>35</sup>. This development is supported by “The Remote Lab”. This is a knowledge and development node for the future of remote work founded by a group of entrepreneurs. These entrepreneurs in parallel run the co-working and development hub ‘Good Morning Östersund’ in the regional capital<sup>36</sup>.

<sup>31</sup> <https://www.swedavia.net/nyheter/Sidor/Trafikverkets-upphandling-av-flygtrafik-klar.aspx>

<sup>32</sup> <https://www.lvm.fi/-/towards-seamless-regional-air-services-also-during-the-coronavirus-epidemic-1232937>

<sup>33</sup> <https://www.lapland.fi/fi/house-of-lapland/hankkeet-ja-onnistumiset/lapin-muuttajapotentiali-kasvussa/>

<sup>34</sup> <https://www.lkab.com/sv/nyhetsrum/pressmeddelanden/stark-tro-pa-framtiden-i-norr---var-tredje-svensk-oppen-for-flytt/>

<sup>35</sup> House Be, Gomorron Östersund, The Remote Lab, N1, Norra station, Härjedalshubben, Fjällhubben Vemdalen, Fjällhubben Funäsdalen, Samverket, Workplays, Hönshuset Mattmar.

<sup>36</sup> <https://remotelab.io/contact-us/>

Second, NSPA public authorities, institutions and companies have, to a greater extent than before, recruited managers and experts that perform their tasks from other locations<sup>37</sup>. This allows them to access expertise and qualifications that is difficult to find within NSPA regions, and especially in the most remote and sparsely populated municipalities. For example, some doctors in inner parts of region Västerbotten work remotely from other parts of Sweden<sup>38</sup>.

Third, NSPA local and regional authorities reflect on how hybrid work solutions (partly remote, partly face-to-face) can increase attractiveness of NSPA living environments. Time spent on commuting can be reduced and settling in more remote parts of NSPA municipalities can be made possible. As a result, inhabitants of a broader range of NSPA settlements can envisage to seek employment in the larger towns and cities. Inversely, NSPA employers can recruit across a wider area. This may help reduce labour market mismatches.

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<sup>37</sup> Interview with representative of Regional Council of Lapland

<sup>38</sup> <https://www.regionvasterbotten.se/digitala-lakare-pa-distans>



### 3. COHESION POLICY FUNDING, OBJECTIVES AND INTERVENTION LOGICS

#### KEY FINDINGS

- Cohesion Policy is implemented within a unique national programme in mainland Finland, but eight regional programmes and one national programme in Sweden.
- In both countries, national bodies act as managing authorities, and regional actors select projects to be funded.
- Swedish regions tend to compete for funding, contrary to Finnish ones.
- Representatives of Swedish regions are directly elected, but regions only recently started elaborating strategic regional development plans.
- Finnish regions are formally associations of municipalities, but have been responsible for strategic planning since their creation in 1997.
- These regions benefit from a specific additional allocation for sparsely populated areas. The methodology to ensure that this funding effectively targets sparsely populated areas within the NSPA regions is weakly defined.
- Support to SMEs is the thematic objective that receives the greatest share of ERDF funding in most NSPA regions. This is consistent with OECD recommendations on the importance of diversifying economic activities.
- A large part of ERDF funding also goes to support to R&D and innovation across the entire NSPA regions. The pursuit of knowledge-based development is facilitated by the strength of their higher education institutions.
- “Low carbon economy” receives a considerably larger share of funding in Finnish NSPA regions compared to Swedish ones. The detailed review of measures reveals that this mainly consists in SME support, with variable levels of ambition regarding the greening of economic activities. A broad range of R&D projects have also been financed.
- Broadband infrastructure investments have only been massively supported in Middle Norrland (Sweden).
- The “sustainable transport” thematic objective has formally only been pursued in Swedish NSPA regions. However, Finnish NSPA regions have funded such measures as part of the support to SME.

#### 3.1. Distinct governance frameworks for Cohesion Policy in Finnish and Swedish NSPA regions

Some background information helps to understand Cohesion Policy priorities and implementation modalities in Swedish and Finnish NSPA regions. These key aspects are synthesised in Table 2 below and are further detailed in the sub-sections below.

Overall, EU Cohesion Policy is an essential component of policies to promote balanced and sustainable development in NSPA regions. While it has largely replaced pre-existing support arrangements, it has also accompanied the transition from a top-down regional policy focusing on compensation to a more regionally embedded policy designed as a catalyst of sustainable economic growth. The previously mentioned Protocol no. 6 (see Section 2.1) has provided a stable basis for the recognition of these

regions' specificity. The allocation of support from the EU helps to disconnect debates on its volume and implementation from national policy debates. However, regional actors in both Finland and Sweden insist on the importance of actively defending the EU place-based approach. A possible threat could come from a reframing of Cohesion Policy as an investment fund inspired by the European Fund for Strategic Investments (also called the "Juncker Plan") and Recovery and Resilience Facility.

As shown in the previous chapter, NSPA regions in some respects perform very well. Some for example experience economic growth rates above national and EU average values, high research and development intensity and are the recipients of massive industrial investments. However, without proactive public policies, their major demographic imbalances will block development. The key to overcome these challenges is to create preconditions for economic diversification (e.g. in ICT-related services, tourism, niche manufacturing, food production and silver economy).

**Table 2: Overview of key differences between Finland and Sweden impacting the regional management of EU Cohesion Policy programmes**

	<b>Finland</b>	<b>Sweden</b>
Programme structure	Unique national programme, with a priori distribution of funds	Eight regional programmes + one national programme
Programme Managing Authority	Ministry of Economic Affairs and Employment	National Agency for Economic and Regional Growth
Intermediate bodies	Regional Councils and regional state administrative authorities ("ELY Centres")	None
Regional government/governance arrangement	Regional Councils are formally association of municipalities	Elected Regional Councils
Responsibility for regional development	Responsibility of municipalities and of the State	Transferred from County Administrative Boards (i.e. regional state representative) to regions in 2015 (Jämtland), 2017 (Norrbotten and Västernorrland) and 2019 (Västerbotten)
Elaboration of development strategies by regional authorities	Elaborated for them by Regional Councils Since EU accession (1994)	First regional development strategies elaborated and adopted recently: between February 2019 and February 2021 in NSPA regions
Regional allocation of funds	Allocation of funds to NUTS 3 regions by national authorities	Some degree of competition for funds between NUTS 3 regions that belong to the same NUTS 2 programming area
Co-financing arrangements	Co-financing provided by national authorities	Multiple regional and national sources of co-financing

Source for transfers of responsibility for regional development in Sweden: [Reglab](#)

### 3.1.1. Cohesion Policy in Finland

In the 2014-2020 programming period, a unique national ERDF and ESF programme is implemented in mainland Finland (i.e. excluding the autonomous Åland archipelago). This system is maintained in the 2021-2027 programming period.

The Ministry of Employment and the Economy is the Managing Authority of the programme. 14 regional councils, and 4 “Centres for economic Development, Transport and Environment” (or “ELY Centres”) act as intermediate bodies, with the status of “funding authority”.

The regional councils are associations of local authorities (municipalities) and constitute mandatory joint municipal authorities. They are responsible for the regional development strategy and overall regional development

The ELY centres are regional state administrative authorities. There is one for North Finland and one for East Finland. Their head offices are respectively located in Oulo (North Ostrobothnia) and Mikkeli (South Savo). However, there are also regional branches in each of the other 5 regions of North and East Finland. This allows ELY centre staff to work in close cooperation with the regional councils.

Regional councils and ELY centres are responsible for different themes and issues in the implementation of Regional Operational Programmes. Regional Councils select and manage projects in the fields of education, research and development and overall regional development, including measures to support specific economic sectors and to encourage entrepreneurship. ELY centres deal with projects in the fields of environmental policy, nature protection, transport and communication, support to individual businesses. They also manage all measures funded by the European Social Fund. The general rationale for this division of responsibilities is that ELY centres contribute to the implementation of national sectoral policies, in close dialogue with corresponding ministries. Regional Councils manage cohesion policy measures that are directly linked to their respective regional development strategy and smart specialisation strategy. The level of alignment between these strategies and cohesion policy implementation is high. Regional Strategic planning was introduced when Finland became an EU member in 1995. However, some commentators point out the “weak character of regional-scale governance, which is a projection of local and national interests onto the regions rather than a self-contained level of administration” (Purkarthofer and Mattila, 2018).

Programme co-financing is granted by the Ministry of Economic Affairs and Employment, jointly with decisions on the distribution of funding between regions. Individual regions therefore have full visibility on available total funding for the entire programming period, and there is no competition between regions on access to national co-financing.

The steering of the national programme is based on cross-sectoral with involvement of actors from different levels. The Monitoring Committee includes:

- seven representatives of ministries
- four representatives of the provincial associations
- four representatives of the ELY centers
- one representative of the Association of Finnish Municipalities
- One representative of the “urban ecosystem agreement”
- two representatives of trade unions
- three representatives of employers' organizations and the business community
- two representatives of organizations responsible for promoting social inclusion, fundamental rights, the rights of persons with disabilities, gender equality and non-discrimination;
- one environmental representative.

As in Sweden, the national concentration of administrative and financial management functions helps to limit the burden on local and regional authorities. At the same time, the organisational setup implies that local and regional actors play a decisive role in funding decisions.

### 3.1.2. Cohesion Policy in Sweden

In the 2014-2020 programming period, eight regional ERDF programmes and one national ERDF programme were implemented in Sweden. The northern sparsely populated areas are targeted by two programmes: Central Norrland and Northern Norrland. There is also a national ESF programme, whose implementation is partly organised regionally.

CLLD has been supported by four EU Funds in the 2014-2020 programming period (ERDF, ESF, EMFF and EAFRD), under the leadership of the Swedish Board of Agriculture. This implies that CLLD was also pursued in urban areas. In the 2021-2027 programming period, CLLD will be supported only by the EAFRD<sup>39</sup>. This will simplify the management of CLLD, but implies a more exclusive focus on rural areas. (Eklund, 2019)

The general organisation of Cohesion Policy is maintained in the 2021-2027 programming period, with an additional national programme for just transition. Two out of four main transition processes to be targeted by the Just Transition Programme are located in Northern Sweden: the transition to steel production without CO<sub>2</sub> emissions in Norrbotten county, and sustainable mining and metal production in Västerbotten county. This latter field of investment was added in response to demands from regional policy makers and stakeholders<sup>40</sup>. However, some regional actors regret that the focus of the Just Transition Fund in Sweden is on industrial innovation, i.e. potentially “bankable” investments for which other sources of financing are available<sup>41</sup>. The broader social and economic perspective on just transition is missing.

Each regional programme targets an area that includes several administrative and political regions. The national programme aims to identify and exploit potential synergies between the regions, and between the regional and national levels. In the 2007-2013 programming period, regional programmes were supposed to implement interregional cooperation projects on their own. In the absence of such initiatives, the Agency for Economic and Regional Growth decided to implement a national programme in 2014-2020.

The National Agency for Economic and Regional Growth ("Tillväxtverket") is not only the national coordinator, but also the managing authority for all eight regional programmes and the national programme. As a result, national coordination issues are more about strategic direction, although coordination of administrative procedures within the Agency itself is also a challenge. Like all Swedish agencies, the Agency for Economic and Regional Growth has a high degree of autonomy from its parent ministry, the Ministry of Industry. It also has a coordinating role in relation to the authorities responsible for coordinating other EU funds (ESF, EAFRD and FEAMP). It has played a central role in the development of the programmes, which was carried out in dialogue with the regional partnerships.

The managing authorities are deconcentrated in the Agency's regional branches, located in the territories targeted by each programme. For example, the person responsible for the programme for

<sup>39</sup> <https://jordbruksverket.se/stod/lokalt-ledd-utveckling-genom-leader/leader-i-nasta-programperiod>

<sup>40</sup> <https://www.altinget.se/artikel/svensk-tolkning-aventyrar-eu-miljarder-for-industrins-omstallning>

<sup>41</sup> Interview with North Sweden European Office

North Norrland is based in Luleå in the Norrbotten region (North Norrland). She reports to the head of the Regional Growth in Northern Sweden unit, which is based in Östersund in Jämtland.

The deconcentrated organisation of the managing authorities helps to minimise the administrative and financial management burden of the programmes on the regions. To ensure the involvement of regional stakeholders in the different programmes, Regional Structural Fund Partnerships at the level of NUTS 2 regions have been established. The chair of these regional partnerships is designated by the government. In the case of Upper and Middle Norrland, this position is held by elected representative of one of the (NUTS 3) regional councils. The chair then appoints the other members of the partnership, most of whom are elected representatives from the municipal and regional levels. Other representatives come from trade unions and employers' organisations, County Administrative Boards (i.e. government representatives in the region), the Social Insurance Agency, the Public Employment Service, universities, NGOs (respectively promoting social entrepreneurship and rights of handicapped persons), and representatives of the Sami Parliament.

This Regional Structural Fund Partnership (at the level of NUTS 2 programme areas) is the main decision-making body in the selection of projects, even if the formal decision making is the responsibility of the Agency as Managing Authority. To carry out this selection work, each partnership has a secretariat funded under the programme's technical assistance. Until recently, this secretariat sorted under one of the County Administrative Boards in each programming area. Since the Swedish regionalisation process was finalised in January 2019, the secretarial support to partnerships is provided by one of the (NUTS 3) regional councils.

A 2020 assessment of this system concludes that the division of roles and responsibilities between Structural Fund Partnerships at NUTS 2 level and Regional Councils at NUTS 3 level is not necessarily clear (Swedish National Audit Office, 2020). The submission of a project proposal to the regional partnership often occurs after a long process of gathering co-financing from different actors. In many cases, a Regional Council is one of the co-financers. This presupposes that its commission in charge of regional development has decided to provide support. Representatives of Regional Council (at NUTS 3 level) in Regional Structural Fund Partnership (at NUTS 2 level) are usually also members of these regional development commissions. These persons therefore make decisions regarding the selection of projects twice: first as elected representatives in the Regional Council (at NUTS 3 level), and then as members of the Regional Structural Fund Partnership (at NUTS 2 level). This raises questions on the relative importance of decision making at these two levels. The fact that some applicants withdraw their funding application when it becomes clear that it will not be supported by the relevant Regional Council (i.e. before it is assessed by the Regional Structural Fund Partnership) tends to suggest that Regional Council decisions have most weight.

Regional Councils have also set up parallel informal arenas to discuss project applications within their NUTS 3 regions. In Middle Norrland, these meetings gather representatives with similar profiles to those of the members of the Regional Structural Fund Partnership in each of the two NUTS 3 regions (Jämtland Härjedalen and Västerbotten). In Upper Norrland, the members of the Regional Structural Fund Partnership from respectively Norrbotten and Västerbotten gather separately to assess project proposals from the perspective of their region. The Swedish National Audit Office notes that it is "not uncommon" that negotiations occur between representatives from different NUTS 3 regions within Regional Structural Fund Partnership on the share of funding to be allocated to projects from each region.

Regional elected representatives are in theory supposed to be actively involved in the elaboration of Partnership agreements. However, this dialogue has not been optimal. Regional elected representatives, particularly in northern Sweden, have criticised the Agency for Economic and Regional

Growth for not having consulted them sufficiently during the preparation of the 2014-2020 programmes. The Agency acknowledges that this process was not conducted in a satisfactory manner. Timing constraints made it necessary to prepare the operational programmes in parallel with the finalisation of the partnership agreement. Improving the consultation phase is said to have been a priority in the 2021-2027 programming period.

The selection of thematic objectives has been carried out in a coordinated way by the Agency for Economic and Regional Growth. The ERDF spending focus on the four "thematic concentration". Thematic objectives 1, 3 and 4 are pursued across the country. Thematic objective 2 is pursued only in Central Norrland, North Norrland, North-Central Sweden, Småland and the Islands, South Sweden, where the ERDF co-finances the deployment of broadband networks.

In Sweden, limited competition between the ERDF and other funding sources is identified:

- In the field of adaptation to climate change: The national programme called "The Great Climate Step Forward" ("Klimatklivet") offers support for local and regional investments with more advantageous co-financing rates and simpler administrative procedures, than those offered by the ERDF regional programmes.
- In the field of innovation (to a lesser extent), Vinnova (the Innovation Agency) offers more attractive support to companies and research centres than the ERDF programmes.

### **3.2. The specific additional allocation to "northernmost regions with very low population density"**

NSPA regions have benefitted from a specific additional allocation for "northern sparsely populated regions" under Cohesion Policy, with Reference to the population density criteria it sets out. The per capita intensity of support has been the same as for French, Portuguese and Spanish outermost regions:

- 35 euros per inhabitant and per year in the 2007-2013 programming period
- 30 euros per inhabitant and per year in the 2014-2020 programming period<sup>42</sup>,
- 40 euros per inhabitant and per year in the 2021-2027 programming period<sup>43</sup>

The specific additional allocation has also enhanced thematic flexibility in the use of funds. Article 11 of ERDF regulations for the 2014-2020 programming period specified that provisions on Thematic Concentration do not apply to the specific additional allocation for northernmost regions with very low population density. The specific additional allocation shall be allocated to the following thematic objectives:

- (1) strengthening research, technological development and innovation;
- (2) enhancing access to, and use and quality of, ICT;
- (3) enhancing the competitiveness of SMEs, of the agricultural sector (for the EAFRD) and of the fishery and aquaculture sector (for the EMFF);
- (4) supporting the shift towards a low-carbon economy in all sectors;

<sup>42</sup> Annex VII of Regulation (EU) No 1303/2013

<sup>43</sup> Annex XXVI of Regulation (EU) 2021/1060



## (7) promoting sustainable transport and removing bottlenecks in key network infrastructures

In the 2021-2027 programming period, these exemptions from thematic concentration rules only apply to outermost regions.

Common provision regulations for all three programming periods delineate the area eligible for support under this specific additional allocation with reference to the previously mentioned Protocol No 6 to the 1994 Act of Accession (see section 1.1)<sup>44</sup>. This protocol specifies that support should target areas that “represent or belong to regions at NUTS level II with a population density of 8 persons per km<sup>2</sup> or less”. Its annex provides a subregional delineation<sup>45</sup>.

However, this delineation was abandoned in subsequent programming periods. In successive Finnish operational programmes, the entire Eastern and Northern Finland NUTS 2 region is presented as the recipient of this funding. There is also no categorisation of projects targeting sparsely populated areas. The underlying reasoning is that all measures in this region, including those targeting urban centres, directly or indirectly benefit the most sparsely populated areas. Regional authorities indicate that this approach has generated comments from the European Commission<sup>46</sup>.

In Swedish regional programmes for Upper Norrland and Middle Norrland, sparsely populated regions are dealt with as a regional subcategory. However, no explicit delineation is attached to this subcategory. The programmes therefore on a qualitative basis identifies project that target challenges linked to sparsity, without singling these areas out as a specific category. At the beginning of the 2014-2020 programming period, Swedish programmes had not established a system to distinguish between projects targeting sparsely populated areas and other areas. Such a system was established in the middle of the programming period, at which time previously implemented projects were categorised ex-post. While general principles for the identification of projects to be considered as targeting sparsely populated areas have not been drawn up, most projects related to transport and broadband access are considered to belong to this category.

One may note that NSPA regions have also been designated at regions “which suffer from severe and permanent natural or demographic handicaps” in Article 174 of the Treaty of the Functioning of the European Union, alongside with island, cross-border and mountain regions. However, these provisions of article 174 are of an incitative nature. They do not constrain the design or implementation of European Union policies, but encourage actors at all levels to consider geographic specificities. In terms of Cohesion Policy design and implementation, and in spite of numerous references to article 174 in successive common provision regulations, article 174 has had limited concrete implications in NSPA regions.

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<sup>44</sup> E.g. in Recital 5 of Common Provision Regulations (EU)2021-1060 for the 2021-2017 programming period: “The northern sparsely populated regions should benefit from specific measures and additional funding to offset the severe and natural or demographic handicaps referred to in Article 2 of Protocol No 6 to the 1994 Act of Accession”

<sup>45</sup> This initial delineation included the province of Lapland (which was dissolved in 2009), and the NUTS 3 regions of Kainuu, North Karelia and South Savo, as well selected adjacent municipalities in North Ostrobothnia, North Savo, Central Finland and Central Ostrobothnia. In Sweden, it identifies the NUTS 3 regions of Norrbotten and Västerbotten excluding some more densely populated municipalities and parishes (i.e. subdivisions of municipalities), and including some sparsely populated municipalities and parishes in four other counties (Västernorrland, Gävleborg, Dalarna (previously Kopparberg) and Värmland)

<sup>46</sup> Information in this paragraph is based on interviews with regional stakeholders.



### **3.3. Allocation of funds and priorities in the different NSPA regions**

In the 2014-2020 programming period, a large part of Cohesion Policy was allocated to NSPA regions in Finland and Sweden. If one considers shares of project budgets, i.e. taking into account the extent to which ESF and ERDF have made it possible to leverage co-funding, one observes that around 56 % of the ERDF co-funded project volume in Finland goes projects targeting Finnish NSPA regions, and 48,5 % of the ESF co-funded project volume<sup>47</sup>. NSPA regions were home to 24 % of the Finnish population in 2014. Support intensity is therefore around twice as high in NSPA regions compared to other Finnish regions both for ERDF and ESF co-funded activities. Three Thematic Objectives were pursued in the 2014-2020 programming period (see Figure 12). These are organised in seven specific objectives, and two priority axes. Thematic Objective 4 ("Low Carbon Economy") is addressed under both priority axes.

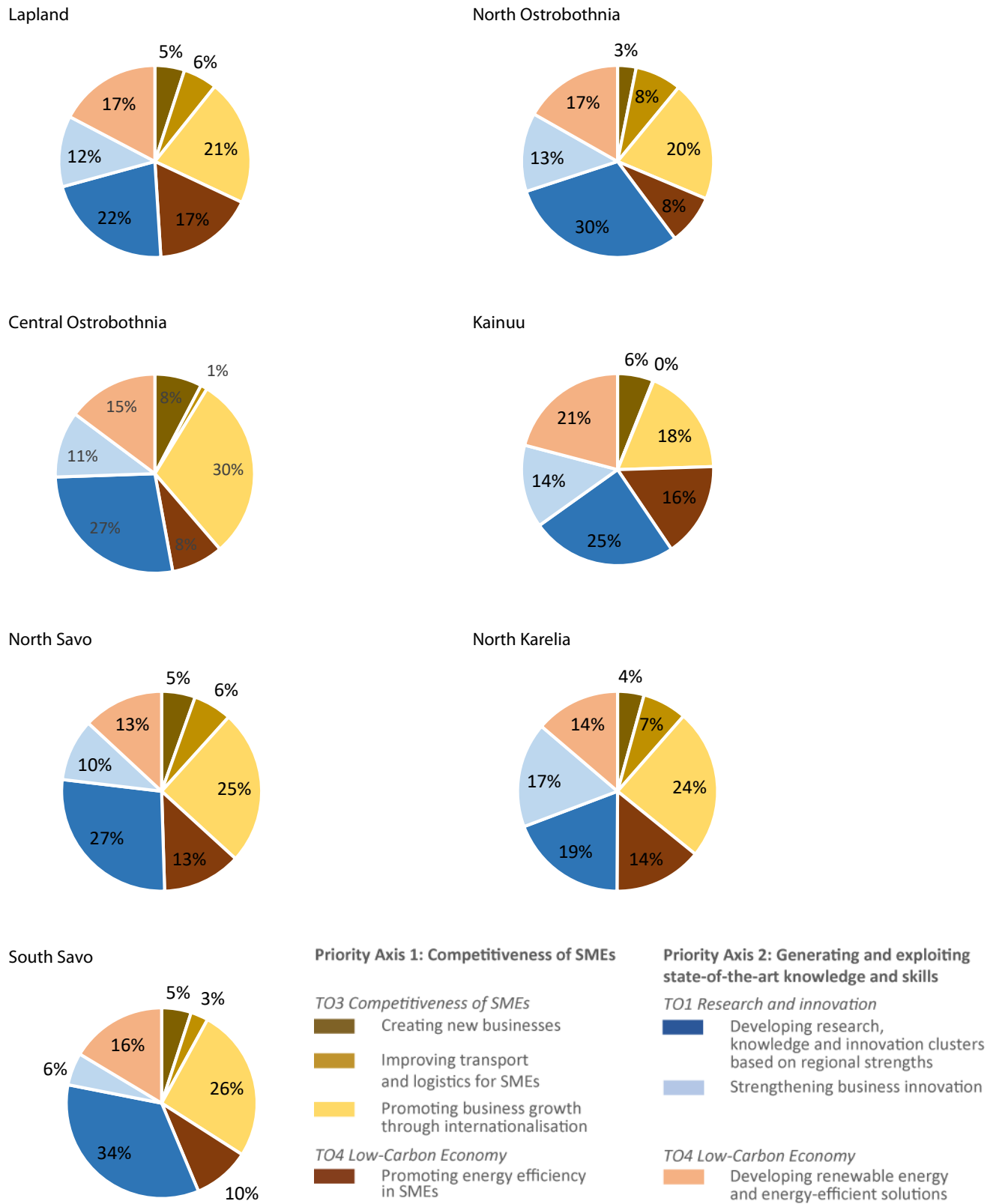
In Sweden, in the 2014-2020 programming period, 37.6 % of ERDF co-funded projects (in terms of total project budgets) went to projects in NSPA regions, but only 5.6 % of ESF co-funded projects<sup>48</sup>. 9 % of the Swedish population lived in NSPA regions in 2014. Support intensity is therefore around four times higher for ERDF co-funded activities in NSPA regions compared to other Swedish regions. However, support intensity for ESF co-funded activities is lower by more than one third. As shown in Figure 13 and Figure 14 , funds were allocated to five Thematic Objectives.

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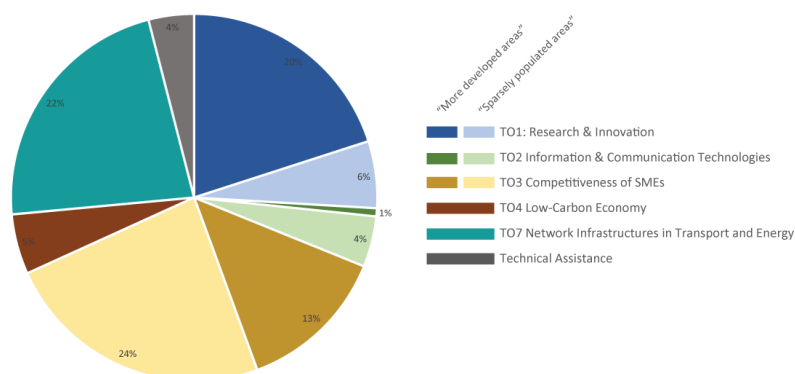
<sup>47</sup> Source: own calculation based on EURA 2014 (<https://www.eura2014.fi/ratiepa/index.php>). This figure does not include national projects, which also cover NSPA regions.

<sup>48</sup> Source: own calculation based on data published by Swedish Agency for Economic and Regional Growth (Projektbanken) and by the Swedish ESF Council (Projektbanken). This figure does not include national projects, which also cover NSPA regions. The cumulated budget of national projects with project owners based in NSPA regions corresponds to 0.9 % of the budget of all projects with ESF co-funding.

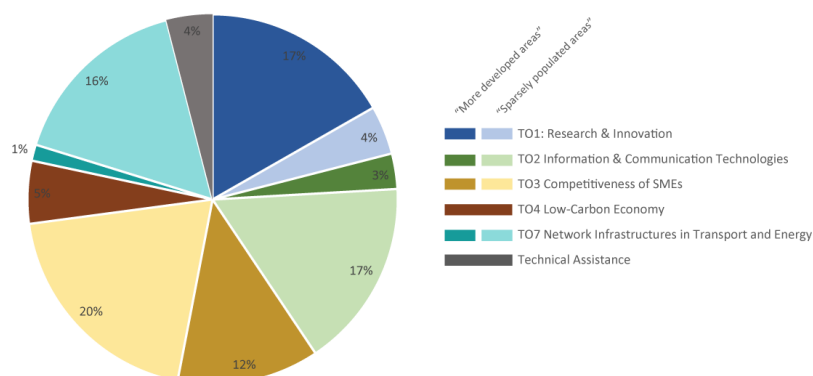
**Figure 12 : Shares of total planned public funding per specific objective and region in Finnish NSPA regions**



Source: own calculations based on EURA 2014. Projects targeting multiple regions have been distributed equally between them.

**Figure 13 : Shares of co-funded by the Upper Norrland regional programme, by thematic objective and type of area**

Source: own calculations based on Swedish Agency for Economic and Regional Growth, Projektbanken

**Figure 14 : Total planned budgets of projects co-funded by the Middle Norrland regional programme, by thematic objective and type of area**

Source: own calculations based on Swedish Agency for Economic and Regional Growth, Projektbanken

### 3.3.1. Strengthening research, technological development and innovation

In Sweden, Thematic Objective 1 ("Research and Innovation") receives a greater share of funding in Upper Norrland (26% of funding) compared to Middle Norrland (21%). This funding primarily benefits the Universities of both programming areas. In Upper Norrland, 54.6 % of funding goes to projects led by Luleå Technical University and Umeå University. An additional 5.7 % goes to projects led by the Umeå Biotech Incubator, of which Umeå University is a majority owner. 5.2 % goes to projects led by Piteå Science Park. In Middle Norrland, 73.3% of funding goes to projects led by Mid Sweden University. The pivotal role played by Higher Education Institutions in the implementation of ERDF programmes is further described in Box 10 below.

In Finnish NSPA regions, project sorting under Thematic Objective 1 concentrate between 28 % and 44 % of total public funding (see Figure 12). The thematic objective is subdivided in two specific objectives: Develop research, knowledge and innovation clusters based on regional strategies, and Strengthening business innovation.

**Box 10 : Pivotal role played by Higher Education Institutions in Swedish NSPA regions**

The possibility of using "pivotal" or "resource" persons and institutions is an essential factor for good programming. These are people and institutions who are familiar with the workings of ERDF programmes, but who also have the necessary networks of contacts to develop and implement projects. For thematic objective 1 of the ROP, universities of northern Sweden play this role to the full:

- In the implementation of Axis 1 of the Upper Norrland Operational Programme, Luleå Technical University (LTU) and Umeå University play a pivotal role in the emergence of quality projects and their implementation under thematic objective 1. This cooperation is long term and allows the programme to draw on the project engineering resources of both universities to develop operations.
- There is no specific legal or funding arrangement for the universities. They spontaneously develop many projects in cooperation with companies, professional organisations and other regional bodies involved in RDI. These projects enable universities to strengthen their links with these economic actors and to benefit from funding for their researchers and administrative staff.
- Luleå Technical University (LTU) has a long history of cooperation with companies in the region. In the current programming period, at the time of writing, LTU-led projects accounted for 39% of the total project volume. The Managing Authority considers that the University provides good guarantees in terms of professionalism in project coordination and quality of the activities implemented. The current programme has strengthened cooperation between LTU and small and medium-sized enterprises and employers' organisations. Many new forms of cooperation have been implemented.

Umeå University has played an important role in the development and implementation of projects dealing with telemedicine. The dialogue between the Managing Authority and the university has made it possible to target the most important and promising issues from the point of view of business development in the region in the operational programme. Lawyers from the university also assisted the Managing Authority in interpreting state aid legislation.

In the smaller city of Piteå, which does not have a university centre, the Piteå Science Park plays a similar role. It runs 7 projects, which correspond to 5.6% of ERDF support.

The universities have developed a culture of working with European programmes for several decades. The financial and thematic management is thus carried out smoothly. The active involvement of universities in the current programme has not required any particular incentive from the Managing Authority.

Projects under the specific objective "Develop research, knowledge and innovation clusters based on regional strategies" largely benefit NSPA universities, but not quite to the same extent as in Swedish NSPA regions. The main beneficiaries are University of Oulu, University of Eastern Finland, South-Eastern Finland University of Applied Sciences, Lapland University of Applied Sciences, Savonia University of Applied Science, University of Lapland and University of Jyväskylä. In total, 44 % of public funding go to the projects they lead. In Kainuu, the Center for Measurement and Information Systems is involved in the three largest funded projects.

Among recurring R&D themes, one may mention Circular Economy Processes in Water and Wastewater (e.g. in Kainuu, Central Ostrobothnia, North Ostrobothnia and North Savo), wood processing (particularly in South Savo), digitalisation (e.g. in relation to mechanical engineering and construction sector in Lapland). In Lapland, there are also major projects linked to special steels and opportunities for SMEs linked to industrial development at the SSAB plant in Raahen (see section 2.4 p. 32), space

activities at LappiSat Satellite Centre and Arctic excellence (Arctic Industry and Circular Economy, Arctic Smart Rural Network, Arctic Security, Arctic Development Environments and Arctic Design).

In North Ostrobothnia, the city of Oulu is involved in the “Six Cities” cooperation with the largest cities in Finland under this specific objective. This cooperation covers many aspects, e.g. an Open Innovation Platform, Open Participation, Open Data, Smart Learning Environments, Enabling Company Growth through Cooperation. North Ostrobothnia otherwise focuses efforts on renewable metal and engineering industries, Health-related services and technologies and ICTs.

The specific objective “Strengthening business innovation” covers a wide range of themes and sectors. In North Finland one for example finds projects supporting innovation in wood processing, tourism, cement products, metal recycling and mining in Lapland, advanced plastic products, semiconductors and robotics in North Ostrobothnia, environmental monitoring and internet of things in Central Ostrobothnia, ecological fertilizers and processing of berries in Kainuu. In East Finland, projects deal with e.g. tourism and green materials in North Karelia, machine parts, dental fillings and living labs in North Savo and sustainable construction practices, forest bioeconomy and eco-efficiency of companies in South Savo.

### 3.3.2. Enhancing access to, and use and quality of information and communication technologies (ICT)

In Sweden, Middle Norrland has funded a larger volume of broadband and ICT-related projects under Thematic Objective 2 (21% of projects, mainly in sparsely populated areas) than upper Norrland (5%). 68.3 % of funding in Middle Norrland went to five projects developing broadband connections between settlements. In Upper Norrland, two major projects to develop broadband connections in Västerbotten concentrate 26.4 % of the funding. Other investments in broadband infrastructure are more punctual. This reflects differences in settlement patterns: Västerbotten has many small settlements, while population in Norrbotten is concentrated in a few agglomerations. Achieving a high share of broadband access is therefore more costly in Västerbotten than in Norrbotten. Västerbotten county has implemented an elaborate model to preserve municipal ownership of broadband networks while complying with European public procurement rules (see Box 11 below)

Several smaller projects dealing with the development of e-services have also been funded in both programme areas.

#### **Box 11 : Efficient organisation of broadband deployment and operation in Västerbotten County**

In the Västerbotten region (southern part of North Norrland), a private company (AC-net) has been commissioned to equip smaller villages with broadband behalf of the municipalities. The investments are made at the level of the municipalities. AC-net only has a coordinating and advisory role. Most of the ERDF funds thus go to the municipalities.

Until 2012, AC-Net leased the networks from the municipalities, which provided them with an income. AC-Net also had an advisory and coordinating role with local authorities, although this activity was not remunerated or contractually agreed. At the time of the concession renewal at the end of 2012, the Regional Council questioned the sustainability of this model. The launch of a public procurement procedure could have resulted in the abandonment of the municipally owned network and a return to a less efficient regional fibre network. However, an alternative solution could be

found. Based on the Teckal ruling of 18<sup>th</sup> November 1999, local and regional authorities were able to maintain the existing model. This ruling allows for derogation from the public procurement rules if the public authority controls the contractor in the same way as it controls its own departments (condition of analogous control) and is almost exclusively the contractor's sole customer (condition of commercial exclusivity or essential link). In order to meet these criteria, AC-net was split in two entities

- "AC-Net Internservice" manages and develops the Internet access infrastructure for the municipalities and the Regional Council of Västerbotten. Only the municipalities and the Regional Council own this entity.
- "AC-Net Externservice" markets excess cable capacity. This company is owned by the Regional Council, the association of SMEs in Västerbotten (Företagarna Västerbotten) and the electricity producers Skellefteå Kraft and Umeå Energi.

Paradoxically, the ERDF projects for investments in new broadband cables were coordinated by "AC-Net Externservice", as this company had the human resources to organise the coordination of the investments. The infrastructure investments co-financed by the ERDF were implemented by the various partner municipalities. The latter largely used contracts negotiated by the Region on their behalf in the context of public tenders; this solution provides the critical mass needed to negotiate these technical contracts. The Region itself can also call on AC-Net's technical expertise.

Thematic Objective 2 was not explicitly pursued in Finnish NSPA regions during the 2014-2020 programming period. However, several ERDF and ESF projects have implemented relevant activities. In North Savo, many of them have been organised in cooperation with the "Digicenter" presented in Box 12 below. The Lapland region has sought to increase its attractiveness through the development of hybrid work (part remote, part face to face) (see Box 13 below).

### **Box 12 : Digicenter in North Savo**

North Savo region has implemented ERDF projects to accompany companies (mainly SMEs) in their digital transformation processes. The "Digicenter" provides services that improve digital skills, foster technology testing and increase networking of companies. It focuses on the Internet of Things, Artificial Intelligence, and digital services, in the fields of Manufacturing, Energy Technology and Health.

The Centre offers the following services:

- Technology & Knowledge Transfer Services and networking within the region.
- R&D&I Services providing regional companies with up-to-date information on features, opportunities and limitation of new digital technologies.
- Coaching, supporting and networking companies seeking to obtain funding for their digitisation processes

The Digicenter has for example been involved in the ESF project Digital and Intelligent Service Production Management, implemented under the specific objective "Digital and Intelligent Service Production Management" and led by the University of Eastern Finland. This project uses digital and artificial intelligence solutions to improve productivity and improve well-being of employees. It also supports the adaptation of management and work organisation models to digital solutions.

The DigiCenterNS operates as not-for-profit organisation. It received around 2,8M€ ERDF and other public funding, which was co-ordinated by the Regional Council of North Savo. The budget for

salary and other running costs is 2.19M€, and 640k€ for investments. Investment have for example covered:

- Building the 5G test network to Kuopio Savilahti campus area;
- Provision of high performance computers for artificial intelligence services.

Sources: <https://www.digicenters.fi/en/home/>  
<https://www.eura2014.fi/rtiepa/projekti.php?projektikoodi=S22178>

### **Box 13: Increasing the attractiveness of Lapland municipalities through the development of hybrid work (part remote, part face to face)**

The municipality of Utsjoki is involved in the Family-Friendly Hybrid Work Lapland project, which promotes the competitiveness and productivity of Lapland's organizations. The project strengthens the attractiveness of organizations by developing work organization models that emphasize well-being at work and coping at work.

The main goal of the project is to promote a telework culture with an emphasis on well-being at work. In order to achieve this goal, the project will, among other things, develop a Hybrid Work Handbook. Communication plans are prepared for the participating municipalities to support and promote their attractiveness as a family-friendly living and working environment. The aim is to highlight, for example, the potential for nature and flexible working patterns.

Project activities target individual companies, business development organisations, municipalities and employees.

Sources: <https://www.utsjoki.fi/news-article/perheystavallinen-hybridityon-lappi-hanke-1-3-2021-30-6-2023/>  
<https://www.eura2014.fi/rtiepa/projekti.php?projektikoodi=S22378>

### **3.3.3. Enhancing the competitiveness of small and medium-sized enterprises (SMEs)**

Thematic Objective 3 ("Support to SMEs") receives the largest share of funding in both programming regions (37% in Upper Norrland, 32% in Middle Norrland). In Upper Norrland, 23.8 % of the funding goes to framework programmes for business support at the level of the two NUTS 3 regions. These framework programmes help businesses make growth-oriented investments and innovations<sup>49</sup>. In Middle Norrland, a similar framework programme is co-funded in Jämtland Härjedalen. This programme concentrates 9.3 % of ERDF support under Thematic Objective 3.

The single most important operation under this thematic objective in both regions is the financing of funds operated by Almi Invest risk capital company (9.8 % of support in Upper Norrland, 13.3 % Middle Norrland). This support compensates for an identified market gap in support to companies in early phases of development. Almi is a group of regional companies, whose parent company is wholly owned by the Swedish State. Regional councils are minority owners in each regional company.

Two other major operations in Upper Norrland are the coupled projects "Destination Capacity Building in Swedish Lapland" (8 % of support) and "Business Capacity Development in Swedish Lapland" (5.5 % of support). These projects respectively improve framework conditions for the establishment and growth of SMEs in the tourism sector, and develop capacities for business and product development. Overall, the tourism sector was a major recipient of support under this Thematic Objective. In order to capitalise on lessons learnt in a more efficient way, some of them chose to coordinate project evaluations (see Box 15 below).

<sup>49</sup> <https://www.regionvasterbotten.se/finansiering/regionala-foretagsstod/eu-i-foretag>



The Middle Norrland programme has allocated a significant proportion of funds under Thematic Objective 3 to the creation of a subsidiary of the Stockholm National Museum in Östersund (4.1% of support). This museum is presented as an “arena for growth through art, creation and design”.

#### **Box 14: Coordinated evaluation of projects supporting SMEs in the tourism sector**

All Swedish ERDF projects are evaluated. The cost of these evaluation is partly supported by the ERDF.

In the Upper Norrland regional OP, four tourism projects (Effekt, AC Hållbar export, Intill, Capacity Building in Swedish Lapland), were co-financed under Axis 3 of the programme ("Increasing the competitiveness of SMEs"). These projects joined forces to have a joint project evaluation carried out. The Managing Authority initiated this grouped approach, but it was implemented by the projects independently. It enabled them to have better quality evaluations and to implement a common capitalisation process.

One of the projects (Capacity Building in Swedish Lapland) took care of the procurement process. This was facilitated by the fact that the Region of Västerbotten was a partner in this project. The four projects represent 16.4% of the total value of projects funded under Priority Axis 3. The aim was not to produce a joint evaluation. Evaluation reports were produced for each project. However, the consultant who produced the reports was able to draw on all the findings to provide better advice to each project. Project stakeholders found the evaluations produced to be more nuanced and balanced. Joint "learning conferences" were also organised in connection with the evaluations.

The evaluation was carried out by European minds (<http://europeanminds.eu/>).

In Finnish NSRF regions, support to SMEs corresponds to between 31 % and 39 % of public funding in ERDF-cofunded projects (see Figure 12 p. 46). It is sub-divided in three specific objectives, each of which are implemented in specific ways in the different regions. The implementation of the three specific objectives is further described below.

Under the “creating new businesses” specific objective, the University of Oulu (North Ostrobothnia) has developed a major knowledge transfer project, in which it ambitions to let entrepreneurs benefit from its expertise and know-hows. The City of Oulu has also brought together key actors of entrepreneurial support to optimise practices. Similarly, the KOSEK entrepreneurial support agency<sup>50</sup> set up by the City of Kokkola, Perho municipality and Invest in Kokkola, is the main recipient of ERDF support in Central Ostrobothnia. It implements a broad range of measures to support entrepreneurs. Mikkeli Development Centre Miksei<sup>51</sup> led a similar project in South Savo. This project focused on promoting investment in areas that are the focus of regional development strategies, such as digitalisation, clean water technologies, forest biomass and tourism. Mikkeli Development Miksei also developed a specific project to stimulate the creation of companies in connection to secondary housing and leisure. The objective is to “Make South Savo an exemplary leisure housing area”, and to optimise economic benefits the seasonal presence of secondary house owners and their guests. A third project seeks to bring private, third and public sectors working in the event sector to the same network, operating model and information. This is a way of optimising benefits from cultural festivals and events.

<sup>50</sup> <https://www.kosek.fi/en/>

<sup>51</sup> <https://mikseimikkeli.fi/homepage/?lang=en>

In Kainuu, the Municipal Development company Kainuun Etu received ERDF support to overcome barriers in access to risk capital for entrepreneurs in the tourism sector. The complexity of this endeavour is illustrated by the municipalities' withdrawal from its activities, and the eventual bankruptcy of Kainuun Etu in May 2021<sup>52</sup>. Contrary to Sweden, national risk capital companies have not been mobilised for this type of operations within the framework of ERDF programmes.

In Lapland, the regional association of Suomen Yrittäjät, the national interest and service organisation for small and medium-sized enterprises (SMEs), set up a project to address impacts of changes of business ownership after the COVID 19 pandemic. Identified challenges in relation to changes of ownership are to identify the companies to be sold, to find potential buyers and to provide the service needed by those considering selling or buying a company. The project implemented measures to support transfers of ownership and to help overcome these effects of the COVID crisis.

A wide range of individual companies have received support under this specific objective, One may in particular mention to Sotkamo Silver Mine in Kainuu (46% of total regional public support), the Inari Wilderness Hotel in Lapland (12.8 % of regional support), the Biocone company in North Karelia specialised in mechanical wood processing solutions and bioeconomy process solutions (9.9 % of support), the RPS brewery in South Savo (9.9 % of regional support) and the Makuvara innovative food producer in North Ostrobothnia (4.7 % of regional support).

The "improvement of transport and logistics for SMEs" specific objective has only been implemented in East and North Finland. Many of the projects funded under this specific objective fund municipal projects to improve accessibility to a specific industrial area. However, the perspective on transport investments of relevance for SMEs is often quite broad. Many projects emphasize that they will improve the living environment and traffic safety, or in the case of Kuusamo (North Ostrobothnia) that they will "make services in the city's core area accessible by walking and cycling". The idea is therefore that a well-functioning transport system will create a more attractive urban environment, which in turn will help SMEs recruit staff.

The City of Joensuu's investments under this specific objective are atypical in different respects. City authorities point out that transport connections to the "Green business park" with ERDF co-funding will help achieve the Carbon Neutral Joensuu 2025 goal. Joensuu also funds logistics infrastructure in its inland waterway deep-water port.

Some of the investments in transport and logistics for SMEs target the tourism sector. This is for example the case in Kuopio (North Savo), where transport investments are made to improve access to the Tahko resort east of the city.

The "promotion of business growth through internationalisation" specific objective also to some extent deals with tourism, with measures to attract greater proportions of foreign visitors to Finnish NSPA regions. This is for example the objective of the Lakeland Finland project in North and South Savo, which focuses on strengthening the international brand of Lake Saimaa, the creation of the "Gateway to the Land of National Parks" in connection to Kuusamo Airport in Kainuu and the construction of high-quality glass-roofed igloos at Santa's Hotel in Lapland to "create an experience product adapted to the demand of new international customer segments".

However, a large share of investments under this specific measure concerned industrial production facilities. They are meant to contribute to the international competitiveness of manufacturing companies.

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<sup>52</sup> <https://yle.fi/uutiset/3-11935678>

An atypical and interesting project in this context is “Future Savo”, which is designed to improve the availability of labour in North Savo. One of the objectives is to enhance the attractiveness of North Savo among foreign workers (see Box 15 below). The city of Joensuu has pursued a similar strategy, but focusing more specifically on the capacity-building within companies in the field of international recruitment, and helping foreign talents set up new companies in the region (see Box 16 below).

**Box 15 : Future Savo project Helping North Savo to recruit the staff they need by bringing 2,000 more people to the region every year**

In the preparation of the North Savo Regional Operational programme for 2018-2021, the common concern of the general attractiveness of the region came to the fore. This is reflected in the out-migration young people, the decline of the working age population, the difficulty in accessing skilled labour and the recruitment problems of companies. Improving the attractiveness of the province is a key issue in the implementation of the entire provincial plan. The Future Savo project was set up to improve the availability of labour in the companies of North Savo and to ensure that competitiveness is maintained. The strong growth of companies and investment plans require visible measures nationally and even internationally to attract jobseekers.

Attractiveness is promoted through practical measures that improve the availability of labour in the area, facilitate everyday life and enhance the commitment of residents to their local community. The focus is on creating a desirable living environment. Marketing and communication campaigns were also funded. The concrete goal is to generate a positive net migration, i.e. 2,000 more people coming to live and work in the region of North Savo every year.

At the same time, the project works with companies with labour shortage, organisations offering professional training, recruitment experts. The objective is to address the different components of the demographic challenge and its negative impact on economic development in a coordinated way.

Source: Eura 2014

**Box 16 : Recruiting international experts in Joensuu**

In the North Karelia region, there was and will continue to be a need to make more effective use of the skills of international experts in companies seeking internationalisation. The project compiled a package of materials for companies, entitled "Internationalisation together - a guide for employers", which was published on the project website. The same website served as a practical tool for companies to reach out to international talent. The project developed an online platform at ([www.talenthubjoensuu.fi](http://www.talenthubjoensuu.fi)). More than 150 participants registered.

Coordination work to find the right SME expert is carried out by Luotsi. Luotsi is an employment project of the City of Joensuu and part of a customer-oriented multidisciplinary service package supporting employment. During the project, recruitment actions have been implemented for 17 companies. According to the entrepreneurs' own assessment, these training sessions lowered the threshold for them to hire additional employees. The TalentHub Joensuu project supported the entrepreneurial pathway of 80 different candidates by increasing their entrepreneurial skills. Entrepreneurship is considered as a solution to help remediate the poor employment situation in North Karelia. The project has helped to create 5 new start-up companies with a team of international talents. Support organisations in North Karelia have been connected through a support group. TalentHub Joensuu has organised regular meetings with the regional support organisations and will continue to do so after the end of the project.

Sources: Eura 2014, <https://luotsijoensuu.fi/in-english>

### 3.3.4. Supporting the shift towards a low-carbon economy in all sectors

In Swedish NSPA regions, Thematic Objective 4 ("Low Carbon Economy") receives the lowest share of funding (5% in both programme areas). The Managing Authority of Upper Norrland reports that it was difficult to obtain applications for funding under this thematic objective at the beginning of the programme, and that the programme primarily funded preparatory studies. According to the national evaluation of the implementation of this thematic objective, senior officials in both Swedish NSPA regions highlight that they had limited knowledge of this policy field at the beginning of the programme elaboration process, and that support from national authorities during the programme elaboration process was insufficient (SWEKO, 2017).

However, many of the preparatory studies funded in Upper Norrland led to projects implementing concrete measures. Together with targeted information campaigns, this made it possible to fund 34 projects in total (Swedish Agency for Economic and Regional Growth, 2021). The thematic focus is broad, with projects dealing with e.g. energy efficient transport, thermal renovation, photovoltaic panels adapted to the Nordic context, urban planning. Some investments in charging stations for electric vehicles have also been funded.

The Middle Norrland programme has dedicated 36.1 % of funding to a framework project to promote energy efficiency in SMEs. This project supports investments in buildings, machinery and consultancy support in the region of Jämtland Härjedalen. The development of an energy efficient ventilation solution at the Sundsvall hospital (Västernorrland) absorbed 13.8 % of funding. The project purports to development ventilation methods that can eventually be transposed to other buildings. Other measures focus on e.g. investments in charging stations for electric vehicles, enhanced energy efficiency in pulp production, biogas production and reduced environmental impact of reindeer herding.

Finnish NSPA regions dedicate considerably higher shares of ERDF funding to Thematic Objective 4. Projects sorting under this thematic objective concentrate between 23 % and 34 % of total public funding (see Figure 12 p. 46). The thematic objective is implemented through two specific objective: "Promoting energy efficiency in SMEs", which sorts under Priority Axis 1 "Competitiveness of SMEs", and "Developing renewable energy and energy efficient solutions", which sorts under Priority Axis 2 "Generating and exploiting state-of-the-art knowledge and skills". The implementation of these two specific objectives is described below.

The promotion of energy efficiency in SMEs is mostly implemented through projects targeting individual companies. In most regions, a few such projects concentrate a large share of total support. In Central Ostrobothnia, the Leivon Leipomo industrial bakery received 21.7 % of regional public funding under this specific objective to finance measures to "increase production capacity by 50% by modifying production lines and increasing efficiency" and to "optimise storage and transport". In Kainuu, the Kuhmo sawmill received 52.8 % of regional public funding to acquire "cutting edge technology". The green profile of the investment is justified by the fact that timber is a natural and environmentally friendly building material, with a lower carbon footprint than e.g. steel or concrete and by the fact that 70 % of electricity is generated using wood chips produced as part of the sawing process. The same justifications are used for most other investments in the wood processing sector, e.g. for support to the Junnikalla sawmill in North Ostrobothnia, which received 23.7 % of regional public funding under this specific objective in the region. Support to the construction of Hotel Kultakero in Lapland is justified by the fact that "the wooden frame of the building sequesters 4 times the amount of carbon dioxide emitted by [the operating company's activities], i.e. about 800 tonnes". The SantaPark Arctic World II project funds an "ecological accommodation concept" using geothermal energy.

In North Karelia, 30.8 % of public funding went to Green Fuel Nordic, a company producing oil from biomass using a pyrolysis method<sup>53</sup>. The second most important recipient of support is Piippo, a manufacturer of high-quality baling net wrap and baler twine for agricultural harvesting (12 % of support). Funding under this specific objective is justified by the fact that end user of the nets produced by Piippo are deemed to have a reduced carbon footprint.

In North Savo, the Finvector pharmaceutical company (previously mentioned p. 24) received 23.1 % of support under this specific objective (EUR 6.5 million). The environmental dimension of the investment is justified by the fact that new buildings will achieve “gold standard” under the LEED building rating system.

Overall, the specific objective helped support a wide range of SMEs, but often with a limited number of companies concentrating a large share of support. Levels of ambitions regarding the greening of economic activities are variable.

The second specific objective (“Developing renewable energy and energy efficient solutions”) targets a different type of beneficiaries. Most projects are led by research organisations or public authorities. Kainuu has concentrated efforts on the development of high added-value products using biomass, in a project led by the University of Oulu (34.1 % of regional public funding). The objective is for example to promote the replacement of insulation material from fossil material with bio-based carbon foam.

The scope of themes and opportunities addressed by funded measures is particularly broad. One may for example mention the reduction of greenhouse gas emissions from wastewater treatment and development of alternatives to rare earths (Lappeenranta, South Savo), smart mobility and new generation hybrid heating and cooling systems (North Savo), sustainable forestry, nature tourism, timber construction and cobalt-nickel ore extraction for electric car batteries (North Karelia), digital solutions to reduce the need to transport goods and materials and more efficient transport of waste (Central Ostrobothnia), environmentally friendly vehicle technologies (North Ostrobothnia), circular economy 2.0 and sustainable tourism (Lapland). One may as a next step envisage to bridge these broad and multifaceted R&D efforts, and efforts to support green and digital transitions of regional companies.

### 3.3.5. Promoting sustainable transport and removing bottlenecks in key network infrastructures

Under Thematic Objective 7, Upper Norrland has focused on maritime transport. The largest projects concern a new transport logistics centre in Piteå harbour, and different investments in the ports of Umeå and Skellefteå. Other major investments concern the railway infrastructure, e.g. a logistic centre in Umeå in view of the future North Bothnia railway. Total planned investments correspond to 22 % of the programme project volume.

In Middle Norrland, one project stands out: the strengthening of the “Mittstråket” rail and road transport axis between Sundsvall and Trondheim in Norway. 62 % of project volumes sort under this thematic objective. These investments are categorised as targeting sparsely populated areas. Other major projects support the development of public transportation in urban and rural areas, and finance renovations of a 60 km railway portion in the inland, to increase its bearing capacity and contribute to the modal shift from road to rail.

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<sup>53</sup> <https://www.greenfuelnordic.fi/>

While this thematic objective has not been pursued in Finnish NSPA regions, a large number of sustainable transport and key network infrastructure investments have been implemented under Thematic Objective 3, with a broad interpretation of the specific objective “improving transport and logistics for SMEs”.

### 3.4. Debates concerning the opportunity of integrated territorial strategies in NSPA regions

As part of the preparation of the 2021-2027 programming period, the opportunity of resorting to Integrated Territorial Investments (ITI) has been discussed both in Swedish and Finnish NSPA regions, albeit with different objectives.

Swedish NSPA regions commissioned a report on the potential usefulness of ITIs in 2020. This report concludes that integrated territorial investments targeting functional areas could help to address observed imbalances in NSPA regions (Ottoson, 2020). Such a use of EU territorial instruments could build on some already established practices. Eight inland municipalities of Norrbotten and two inland municipalities of Västerbotten (Arvidsjaur and Arjeplog) have established the so-called ‘Region 10’, within the framework of which structural investments have been implemented<sup>54</sup>.

Building on these observations, representatives of the four NSPA Regional Councils sent a request to open for the recourse to Integrated Territorial Investments targeting sparsely populated inland areas in the implementation of Cohesion Policy programmes for the 2021-2027 programme to the Ministry of Industry in November 2020. They argued that such a solution could help address the challenges of sparsely populated rural areas. This line of reasoning is consistent with the 2017 OECD report in NSPA regions (see Box 2 p. 16), which argued that local labour markets could be the best scale to monitor economic performance and to implement public policies.

The Ministry of Industry through its Secretary of State replied that Upper Norrland should continue to be considered as a unified programme area. It argues that the creation of an ITI that would target a subregional group of municipalities would be “contrary to important principles in the distribution of funds”, according to which “the best project shall receive funds and the selection of projects shall be carried out by the regional structural fund partnerships”<sup>55</sup>. The request submitted by the Regional Council was rejected on this basis.

Finnish NSPA regions jointly envisaged the creation of an ITI that would cover the entire East and North Finland area for the 2021-2027 programming period. For this purpose, they elaborated a strategy report entitled “Special actions for the sparsely populated region of Eastern and Northern Finland during the EU programming period 2021-2027”, which was finalised in March 2020. The underlying rationale was that national authorities envisaged to exclude investments in transport infrastructure from the national regional and structural policy programme. NSPA Regional Councils considered such investments to be of particular importance. The establishment of an ITI would make their funding possible<sup>56</sup>.

However, after negotiations with the Ministry of Employment and the Economy, “Specific objective 3.ii: Developing regional and local accessibility” of the Operational Programme was redrafted with the possibility of funding road infrastructure investments in East and North Finland only. In addition, national authorities emphasized that setting up an ITI would significantly increase the administrative

<sup>54</sup> <https://region10.se/>

<sup>55</sup> Ministerial correspondence N2020/02607

<sup>56</sup> Integrated Territorial Investments have full thematic flexibility within the framework of adopted EU



burden of programme management, e.g. with additional reporting obligations. As a result, the plan to set up an ITI was abandoned.

Overall, regional authorities in the two countries therefore envisage ITIs at different scales, and for different purposes. The use of ITIs as instruments that may modify the multi-level governance of cohesion policy, by strengthening bottom-up dynamics and making it possible to better align programmes on regional strategic plans, is hardly envisaged. In Finland, sub-regional ITIs gathering selected municipalities may be considered a possible threat by a regional level whose democratic legitimacy and authority comes from these same municipalities. In Sweden, regions have only just started elaborating and adopting regional strategic plans. A maturing process will be needed to envisage such plans as aggregations of strategies at the level of functional areas, and to progressively bring regional operational programmes at the level of NUTS 2 regions closer to strategic plans at the level of NUTS 3 regions.



## 4. CONCLUSIONS AND POLICY RECOMMENDATIONS

### KEY FINDINGS

- The NSPA regions host a number of industrial plants of global relevance that generate substantial income. Such activities to variable extents contribute to enhanced welfare and sustainable development in the regions as a whole.
- As part of efforts to capitalise on these assets, Cohesion Policy has successfully supported R&D&I activities, helped develop SMEs and diversify local economies. Tourism has also grown substantially.
- Manufacturing and extractive activities and energy production in the NSPA region play a major role in ensuring a stable supply of key industrial inputs in other parts of Europe. This is increasingly important in a context of increasing geopolitical tensions and uncertainties.
- In the absence of territorially integrated approaches at the level of local labour markets, the extent to which cohesion policy may effectively help overcome key social challenges (lack of skilled labour, ageing, gender imbalances) can be questioned.
- There are current institutional and political obstacles to the use of Cohesion Policy's territorial instruments in NSPA regions. If they were to be overcome, NSPA regions could capitalise on good practices in other parts of Europe, e.g. Italy, Spain and Portugal. Continued efforts are needed to ensure that Cohesion Policy effectively contributes to the green and digital transitions of NSPA regions.

NSPA regions have multiple strengths, many of which are actively made use of for economic development. At the same time, it is a region with key vulnerabilities that may become development bottlenecks.

The strengths include extensive natural resources, robust and stable institutional frameworks, well-developed higher education institutions, leading R&D organisations, world leading industries in multiple sectors. North Sweden in addition has abundant renewable energy from hydropower. Renewable energy from wind and biomass may be developed across large part of NSPA regions. This generates a wide range of development opportunities. Identifying types of development that would be most beneficial to NSPA regions and their inhabitants remains a major challenge. Regional policies in both Sweden and Finland are driven by the ambition to focus on knowledge-intensive activities. This involves extensive incentives to promote public and private R&D&I activities, as part of Cohesion Policy programmes and through other instruments. Debates on strategic choices, e.g. on the purposefulness of supporting the establishment of data warehouses, address this issue of regional added value. The main ambition is to capitalise on the presence of large, internationally competitive industrial plants by developing advanced support functions. SMEs providing such services accumulate an expertise which may enable them to gain market shares outside of NSPA regions.

However, NSPA region industries primarily remain providers of essential inputs to processing industries located in other parts of Europe and the World. The owners of these activities that are to a large extent located outside of the region. Therefore, NSPA economies are often weaker than gross regional product values may suggest. Their exposure to fluctuations on world markets is reflected in the higher volatility of growth and unemployment rates compared to national values. Cohesion Policy support to NSPA regions may help to compensate for this vulnerability that is inherent to demographic sparsity and long

distances. It is particularly justified considering the strategic importance of NSPA production inputs for the European economy.

Supply-chain disruptions resulting from the COVID-19 pandemic and from political responses to the Russian invasion of Ukraine strengthen this line of argument. Climate change mitigation measures may also encourage industrial actors to focus on intra-European suppliers, especially when rail transport is available. Cohesion policy programmes can be approached as instruments that may strengthen the resilience of the European economy in the face of geopolitical uncertainties, e.g. by considering the geographical organisation of current and potential future transnational supply chains. This additional dimension may help to justify a continued Cohesion Policy, insofar as it is effectively integrated in the design and implementation of programmes.

Cohesion Policy addresses vulnerabilities of NSPA regions that could become bottlenecks for their future development and contribution to sustainable growth in the European Union as a whole. Some of the key weaknesses are limited access to qualified personnel, ageing and gender imbalances. They can partly be addressed with measures to improve the attractiveness of living environments and to market these areas. However, the promotion of more balanced and diversified local labour markets, e.g. with a greater number of SMEs, is needed for a balanced development on the medium to long term. A large part of ERDF funds has been dedicated on support to SMEs and entrepreneurs across all NSPA regions.

Part of the underlying rationale is that resilient development is embedded in vibrant, robust local communities. This *inter alia* presupposes labour markets that can provide employment opportunities for both female and male young graduates, attractive living environments, adequate service provision at all stages of life and a commercial and cultural offer that corresponds to the population's needs. With its Cohesion Policy embedded in the TFEU principles of economic, social and territorial cohesion, the European Union helps resist the temptation of applying "fly-in fly-out" models for the exploitation of resources in peripheral areas such as the NSPA regions. As shown in the present report, the development of remote working opens new possibilities. It on the one hand makes essential expertise available to NSPA companies and public authorities. On the other hand, it facilitated long-term stays of persons working for clients or employers in other regions. However, attempts to capitalise on new remote working cultures and tools may only complement integrated strategies to support the socially and ecologically balanced development of NSPA communities. As shown in the present report, the gender dimension is in the respect particularly important to consider.

Gender imbalances are a major component of sub-regional demographic polarisation, which may be the main threat to the balanced and sustainable exploitation of NSPA resources. Most settlements and municipalities that are not in the vicinity of a larger town or city have experienced continuous decline over multiple decades. In Finland, only few settlements outside of the immediate influence area of regional capital cities of Oulu, Rovaniemi, Kokkola, Joensuu, Kuopio and Mikkeli experience population increase. Population decline is particularly pronounced close to the border to Russia. In Sweden, this leads to an increasing contrast between coast and inland in Upper Norrland. In Middle Norrland, the inland city of Östersund and winter tourism hotspot of Åre have experienced moderate to strong population growth in the last 20 years. Between 2011 and 2021, considerably higher rates of local population decline are observed in Finland than in Sweden. This is partly because Swedish remote communities lost more population in previous decades. The demographic "thinning out" process nonetheless generates acute challenges for the provision of services of general interest across all parts of the NSPA regions.

Contrary to e.g. Italy<sup>57</sup>, Spain<sup>58</sup> and Portugal<sup>59</sup>, Swedish and Finnish national authorities have no explicit ambition of reverting population decline in remote areas. The Swedish *National Strategy for Sustainable Regional Development in the Entire Country 2021-2030*<sup>60</sup> that was adopted in June 2021 notes that demographic challenges occur, alongside with environmental challenges and climate challenges. It also identifies three “preconditions for local development”: robust and well-functioning labour markets, supply of public services in all municipalities and access to skilled labour. Public policy measures to establish these preconditions are foreseen in order to make innovation and entrepreneurship possible in all parts of the country. A containment of local demographic decline therefore appears as a possible and desirable outcome but is not per se a policy objective. Similarly, in Finland, extensive emphasis is put on the need to promote innovation and entrepreneurship and to optimise the use of available human and natural resources across the country. Reflections dealing with local population decline as an issue to be tackled are only emerging, e.g. in the framework of a Parliamentary working group set up in October 2020, with a mandate that expires in June 2023.

These policy perspectives help understand Swedish and Finnish authorities’ reluctance towards Integrated Territorial Investments at the level of functional areas within NSPA regions. The focus is on the promotion of knowledge-driven development, rather than on support to individual communities. The strength of Finnish and Swedish municipalities, and the national fiscal redistribution systems they have benefited from, have also helped preserve territorial cohesion. However, local authorities are increasingly under pressure, especially in areas with low population levels. One can question the extent to which territorial cohesion may effectively be pursued in the absence of strategies and measures to promote more integrated territorial development, especially in the NSPA region’s most vulnerable labour market areas.

Nonetheless, many good practices have been identified in the 2014-2020 programming period, e.g. when it comes to attracting new employees and reducing labour market mismatches in Finland. Local transformation processes are also ongoing in Swedish municipalities hosting new major industrial plants, e.g. the opening of an international school in Skellefteå in the context of the construction of the Northvolt battery factory. Inland municipalities in Swedish NSPA regions are joining forces to improve their attractiveness and jointly improve access to services of general interest. National strategies for more balanced territorial development in NSPA regions could therefore capitalise on a wide range of local and regional initiatives. They could also draw inspiration from strategic frameworks set up in e.g. Italy, Spain and Portugal.

Such a more integrated perspective, addressing economic opportunities and social challenges in a coordinated way, presupposes that territorial cohesion policy is preserved in its present form. The possible shift away from such territorially embedded policy instruments, with more focus on public investment funds inspired by the European Fund for Strategic Investments (also called the “Juncker Plan”) and the more recent Recovery and Resilience Fund, would make it more difficult to implement responses to the concrete challenges of NSPA regions and localities. Regional stakeholders emphasize

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<sup>57</sup> Italy authorities have adopted the [National Strategy for Inner Areas](#) (NSIA), whose core objectives are to create preconditions for robust development in remote and isolate areas, with better quality of life and stabilised or growing population. The strategy has been developed since 2012 and follows the programming periods of cohesion policy.

<sup>58</sup> In Spain, the Ministry for the Ecological Transition and Demographic Challenges and Directorate General against depopulation (“Dirección General de Políticas contra la Despoblación”) were created in 2020. In April 2021, a [report](#) with 130 measures to address the demographic challenge in the framework of the Recovery Plan was published.

<sup>59</sup> The Portuguese Office for the Valorisation of the Interior was established in December 2015. It has been responsible preparation of the National Programme for Territorial Cohesion (NPTC), which since 2020 is reframed as Programme for the Valorisation of the Interior. The Portuguese [National Programme for Territorial Cohesion](#) adopted in 2016 and revised in 2018 includes a strategy to “break the vicious circle of population decline”.

<sup>60</sup> [https://www.riksdagen.se/sv/dokument-lagar/arende/betankande/nationell-strategi-for-hallbar-regional\\_H801NU24](https://www.riksdagen.se/sv/dokument-lagar/arende/betankande/nationell-strategi-for-hallbar-regional_H801NU24)

that this would represent a major threat. However, the limited use of available territorial instruments, for the reasons described above, makes it more difficult to support this argument.

All regional stakeholders insist on the importance of Cohesion Policy Programmes, which have replaced most national support mechanisms in place before EU accession. Numerous concrete benefits in terms of diversification of local economies and of improved promotion of R&D&I are highlighted. Cohesion policy helps establish clusters and promote networking within the region and with relevant external R&D milieus. Targeted measures to better exploited possibilities offered by digitalisation in product development have been implemented. Cohesion Policy programmes have also significantly contributed to the diversification of the local economy, increasing the number of SMEs and their competitiveness. In the field of tourism, cohesion policy has helped actors develop year-round activities with more visitors in the summer season and has supported green and digital transitions. The above-mentioned development of businesses providing services in the mining and manufacturing sector, capitalising on the presence of major industrial plants, has also been largely supported by cohesion policy. Overall, cohesion policy in NSPA regions is well-aligned with the strategic priorities identified in the 2009 NSPA Foresight report (see Box 1 p. 14) the 2017 OECD report (see Box 2 p. 16). The well-functioning cooperation between public and private actors, e.g. with the prominent role played by higher education institutions, as helped deliver concrete results.

However, the review of concrete measures to support the greening of local economies, e.g. among SMEs, reveal variable levels of ambition. This suggests a need for renewed approaches empowering local and regional actors to implement transformative actions, in the spirit of the European Green Deal. In both Finland and Sweden, the narrow sectoral focus of the Just Transition Fund does not help promote such approaches. With respect to the shift towards a low-carbon economy, programmes authorities report that they have gone through a collective learning process in the 2014-2020 programming period. Examples of good practice have also been identified in the promotion of a more circular economy with Cohesion Policy support, e.g. in Finnish Lapland. Continued efforts to ensure that cohesion policy effectively contributes to the European green and digital transitions are therefore needed.

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Northern Sparsely Populated Areas (NSPAs) have high economic potentials. Proactive public policies are needed to unlock them by overcoming key demographic challenges, making it possible for companies to recruit skilled staff and enhancing the welfare and quality of life of their populations. The study describes measures implemented to this end under EU Cohesion Policy. It suggests that more integrated approaches could help address these challenges in a more effective way and preserve territorial cohesion within NSPA regions.

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