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1. STRATEGY FOR THE OPERATIONAL PROGRAMME'S CONTRIBUTION TO THE UNION STRATEGY FOR SMART, SUSTAINABLE AND INCLUSIVE GROWTH AND THE ACHIEVEMENT OF ECONOMIC, SOCIAL AND TERRITORIAL COHESION

1.1 Strategy for the operational programme's contribution to the Union strategy for smart, sustainable and inclusive growth and to the achievement of economic, social and territorial cohesion

1.1.1 Description of the programme's strategy for contributing to the delivery of the Union strategy for smart, sustainable and inclusive growth and for achieving economic, social and territorial cohesion.

Europe 2020 is the EU's common development strategy and a framework for growth and employment. The strategy has three elements: smart, sustainable and inclusive growth. Smart growth focuses on the development of an economy based on knowledge and innovation. Sustainable growth emphasises the need for a more resource-efficient, greener and more competitive economy. Inclusive growth is to foster a high-employment economy delivering social and territorial cohesion. The focal areas are clarified by five headline targets for employment, education, social inclusion, research and development, and climate and energy.

The EU Regulation indicates 11 thematic objectives for implementation of the Structural Funds programmes [1], 10 of which are selectable for the most developed countries in the EU, including Sweden:

1. Strengthening research, technological development and innovation.
2. Enhancing access to, and use and quality of, information and communication technologies.
3. Enhancing the competitiveness of small and medium-sized enterprises (SMEs).
4. Supporting the shift towards a low-carbon economy in all sectors.
5. Promoting climate change adaptation, risk prevention and management.
6. Preserving and protecting the environment and promoting resource efficiency.
7. Promoting sustainable transport and removing bottlenecks in key network infrastructures.
8. Promoting sustainable and quality employment and supporting labour mobility.
9. Promoting social inclusion, combating poverty and any discrimination.
10. Investing in education, training and vocational training for skills and lifelong learning.

The Partnership Agreement

The Partnership Agreement represents the national strategic framework for the next Structural Funds period and indicates orientation and priorities as a basis for use of the

funds. There therefore has to be a close link to the operational programme. The analysis in Sweden's Partnership Agreement emphasises the following aspects in particular:

Sweden is becoming increasingly globalised and subject to competition, necessitating well-trained labour, high-quality research and innovation, and functioning infrastructure. Level of education is of great significance to the ability of the labour market, the region and society to develop and be transformed. There is a regional imbalance in the distribution of people with a high level of educational attainment, which has consequences for long-term regional development. R&D investments in the private sector, in particular, need to increase and entrepreneurial skills need to be enhanced, especially in rural areas and among young people, women and people born abroad. It is also desirable to profile leading universities and increase collaboration with operators from the business community.

The Government has a vision for Sweden to have zero net greenhouse gas emissions to the atmosphere in 2050. The challenge is to combine growth with a reduction in greenhouse gas emissions, which several regions have succeeded in doing in recent years. Greenhouse gas emissions show great regional variation, principally due to differences in business structure. Domestic transport accounts for a third of emissions. Sweden is greatly affected by a changed climate, and the consequences vary with local and regional circumstances. The risk of flooding in lakes and rivers will increase, for example. Efforts to switch to a more sustainable energy system and sustainable business development provide a basis for the development of technology, products and services, and in the longer term also increased employment and business creation.

The most important objective of employment policy is to bring about a lasting increase in employment. The increase needs to take place primarily in groups with a weak attachment to the labour market, such as young people and persons born abroad. There is also a need for the employment rate among women to rise. Increasing unemployment in recent years has hit all regions and population groups hard, but young people born abroad, people with disabilities and people with a low level of educational qualifications have been particularly affected. Long-term unemployment has also increased and today poses a significant structural challenge. Demographic development and an ageing population are leading to problems in obtaining a long-term sustainable supply of labour.

There is a great imbalance with regard to where in the country economic activity is located. The metropolitan regions (Stockholm, Gothenburg and Malmö) together account for 57 % of GDP, but 40 % of real growth in GDP took place outside these regions over the period 2000-2010. The sparsely populated parts of the country face lasting challenges related to the way the local market functions and access to other national and international markets. Sparse population leads to higher costs for public and commercial service functions, which are important for the inhabitants and local business. The cities are of a great significance as drivers of growth for their surrounding regions. It is therefore important to look at cities in a functional regional perspective. Deficiencies in transport infrastructure can restrict the adaptation and internationalisation of regional business. Access to high-speed broadband is a key factor in stimulating new business opportunities, services and innovations. Good electronic communications are particularly important for growth, enterprise and housing for the countryside and other sparsely populated regions.

The analysis for the Partnership Agreement emphasises the following challenges for Upper Norrland: in this sparsely populated region with long distances, there is a need for an enhanced transport infrastructure and extended broadband deployment, which is important for the competitiveness of enterprises and low R&D intensity. These challenges are described in each priority axis in the programme document, principally in Chapters 1, 2 and 6.

The government guidelines for programme preparation describe how the regional Structural Funds programmes are to be focused on a small number of priorities, in line with the Partnership Agreement. A total of 70 % of the resources from the ERDF are to be earmarked for thematic objectives 1 and 3, and 13 % for thematic objective 4. For the remaining resources (17 %), no more than three of thematic objectives 5-10 may be selected; however, the Government has advocated thematic objective 7. The special resources earmarked for the EU's sparsely populated areas, which include Upper Norrland, may be allocated to any of thematic objectives 1-4 and 7.

The coordination between the EU's different funds and programmes is to be strengthened during the programming period. This means that the regional Structural Funds programme is to promote synergies with other funds and programmes and avoid overlaps so that European, national and regional efforts complement one another.

The regional Structural Funds programme is to contribute to sector coordination, and account is also to be taken of the potential that exists in the form of cooperation with adjoining regions and countries. The aim of the EU Strategy for the Baltic Sea Region is to respond to the common challenges faced by the countries in the Baltic Sea Region. The strategy has three main objectives: save the sea, connect the region and increase prosperity. Coordination between the macroregional priorities and the operations in the regional Structural Funds programme is to be made possible during the programming period 2014-2020. Chapter 4.4 describes the cooperative measures in the EU Strategy for the Baltic Sea Region that can be supported through the regional Structural Funds programmes.

Regional circumstances

The Upper Norrland programme area comprises the counties of Norrbotten and Västerbotten. The region is part of Europe's NSPA (Northern Sparsely Populated Areas). The area accounts for around 10 % of the EU's total land area, but less than 0.5 % of the EU's total population live in the region (fewer than 8 inhabitants per square kilometre). Upper Norrland includes parts of Sápmi, the geographical area that is the historical area of settlement of the Sami people. The Bothnian Corridor stretches along the coast, from north to south. It represents one of the EU's priority transport routes and therefore forms part of the TEN-T Core Network.

The region's three universities (Umeå University, Luleå University of Technology and the Swedish University of Agricultural Sciences) are a seedbed for the development and establishment of knowledge-intensive enterprises. The service industries are a significant part of trade and industry in the larger cities. The cities play an important role as a driver of growth in the region. In other parts, the structure of trade and industry is linked to the rapidly growing raw-materials industry and the visitor industry, in which large investments are being made.

The region is notable for long distances, a sparse population structure and ageing and declining population. At the same time, it is an area that is rich in natural resources, such as minerals, forests and energy supply, which contribute to growth and sustainable development throughout Europe. The region's trade and industry and knowledge-based organisations use and/or challenge climatic and geographical conditions such as cold, darkness, distance, demographics and sparse population to create innovations and businesses. The region's strengths relate to genuine advantages in comparison with other regions in Europe and the rest of the world, formulated below as focal areas for smart specialisation.

Focal areas for smart specialisation

Upper Norrland has developed its work on smart specialisation in the county development and innovation strategies. Work on the strategies of the programme area for smart specialisation has been preceded by analytical activity, experience from previous programming periods and endorsement of approaches and priorities. Upper Norrland will contribute to the development of its regional areas of strength during the programming period 2014-2020 through cooperation and synergies. Operations in the regional Structural Funds programme are to be based on the following focal areas for smart specialisation:

- innovations in healthcare
- life sciences
- development of technology and services in industry
- test activity
- sustainable energy and environmental technology
- experience industries and cultural and creative industries
- digital service industries for a smart region.

Intersections

A method to be applied with the aim of strengthening the region's focal areas is what are known as intersections. Research shows that, when an area of expertise or sector crosses another area, new innovations, or what are known as innovative leaps, can arise [2]. There is therefore potential for future investments by promoting meetings within and between sectors and different types of enterprises, organisations and areas of expertise. An example of an intersection is the development of technology and services in industry, requiring applications and other ICT solutions, which can be offered by, among others, operators in the creative sector. Intersections can also contribute to greater gender equality if traditionally gender-segregated sectors are encountered. Projects that contribute to intersections within and between focal areas will be prioritised.

Innovations in healthcare

The development of products and services in both private and public activity linked to healthcare is an area of growth with great national and international development potential. A regional structure for clinical research and clinical trials has been built up.

Cooperation with universities and with trade and industry fosters innovativeness, development of ideas and entrepreneurship in the health, medical and social care sector and in the areas of medical technology, sport and health.

Life sciences

The pharmaceutical, biotechnology and medical technology industries develop to a great extent through continuous contact between trade and industry, universities and colleges. There is advanced research in the region in medical cellular and molecular biology, together with well-developed biotechnology and medical technology supported by information and communication technology. The region's biobanks and multi-generation data comprise unique population-based biobank material with very long follow-up periods and repeated samples. Digitisation and linking of data are performed with well proven systems and stringent quality requirements.

Development of technology and services in industry

Demand for the development of technology and services in primary industry can contribute to boosting the competitiveness of the region's small and medium-sized enterprises. In cooperation between the region's primary industry/processing industry, research and enterprises, the necessary basis is created for Upper Norrland to occupy a global position with regard to knowledge-intensive industrial development.

Sustainable exploitation of natural resources combined with leading information and communication technology development where leading-edge research goes hand in hand with industry has contributed to Upper Norrland holding a world-leading position in the high-technology processing industry in mining, minerals extraction and forestry, as well as recovery.

The areas of development relate, among other things, to forest and wood technology, mining and minerals technology, digital technology, industrial design, the forest industry, growth and forest biotechnology and process engineering. As a result of its raw-material assets, industry, and research and development expertise, the region is uniquely well placed for growth and has great opportunities for further processing of the products of primary industry. Among other things, development of the use of biomass is aimed for, as well as the processes and methods of the wood industry, from forest to finished wood product, through expanded R&D. A position in the international market for future timber building technology and climate change-adapted construction is also aimed for.

Testing activity

Testing and exercise activity is an area with great growth potential, where the region's circumstances, combined with skills and level of technology, provide competitive benefits. There are unique opportunities to undertake testing activity in the region with access to large areas of land that are sparsely populated and have a stable winter climate with cold, clean air and free airspace. The sector that contains vehicle and component testing activity has experienced rapid growth in recent years. The conditions for testing materials, systems and personnel under different climatic conditions are good, and there are good opportunities to expand testing and exercise activity to other sectors, such as the aviation and space industries, trains, mobile communications, and risk and safety.

Sustainable energy and environmental technology

Upper Norrland will gain new opportunities for sustainable growth through work on developing renewable energy sources. It is important to develop the necessary knowledge and technology with regard to the use of renewable energy sources and improved efficiency of industrial processes and energy use. Environmental technology and environmental innovations are two areas of growth, among other things because of substantial access to hydro power, forests and wind power. R&D intensity is high in this sector and at the region's universities.

Experience industries and cultural and creative industries

Cultural and creative industries are in increased demand and play a positive role in regional development, firstly because of their own growth potential and secondly as a result of links to other activities and sectors [3]. The prospects for developing the creative industries further are very good, using the resources and drivers that exist in the region, particularly among young adults. The combination of new technology, research and innovativeness promotes the development of new business ideas, which provides good opportunities for cultural and creative industries to become internationally competitive.

Tourism and experiences are growth areas well placed to be developed and contribute to greater regional competitiveness and employment. The region's nature, culture and history, combined with the development of good communications, provide good opportunities to create products and experiences of high quality, and at the same time are important reasons for visiting the region. Development of the Sami tourist industry, based on the circumstances and needs of the Sami population, can foster greater attractiveness, more innovations and entrepreneurship in the region.

The special circumstances of the region, in the shape of large and sparsely populated expanses of land, a winter climate, bright summer nights, etc. can also make innovative approaches and ideas possible. There is natural development, for instance, in the link between outdoor activities and tourism, where snow, ice and natural environments together with design and architecture contribute to the development of business and innovation.

Digital service industries for a smart region

The digital service industries develop tools, services and products that link the region together internally and with the rest of the world. There is great potential in the development and implementation of new products and applications, as well as systems, for broader ICT use in Upper Norrland, firstly to develop access to medical and social care, culture and education in sparsely populated areas, and secondly to foster enterprise, development of innovation and collaboration between private and public-sector operators. Innovative solutions in the areas of e-health and telemedicine, for example, can provide answers on how to respond to the demographic and geographical challenges.

Thematic objectives and investment priorities for Upper Norrland

The selection of thematic objectives and investment priorities for the Structural Funds programme in Upper Norrland is based on the Europe 2020 strategy, the Partnership Agreement, the government guidelines on programme preparation and the regional strategies for development of the counties [4]. Five thematic objectives have been selected, which also represent the five priority axes of the programme:

- Strengthening research, technological development and innovation.
- Enhancing access to, and use and quality of, information and communication technologies.
- Enhancing the competitiveness of small and medium-sized enterprises (SMEs).
- Supporting the shift towards a low-carbon economy in all sectors.
- Promoting sustainable transport and removing bottlenecks in key network infrastructures.

Upper Norrland prioritises efforts in a combination of innovation and trade and industry with transport and broadband infrastructure that creates the necessary basis and meets the need for trade and industry to take greater responsibility for a shift to a low-carbon economy.

Development in these areas is prioritised in the regional strategies for the counties' development. Selected thematic objectives address the challenges facing Upper Norrland which, to a very great extent, are due to the region being sparsely populated and having long transport distances [5]. Experience from implementation of the regional Structural Funds programme for regional competitiveness and employment in Upper Norrland 2007-2013 also shows that the region to a great extent has asked for development operations in these areas.

A principle underpinning the programme-drafting process is that operations in several funds and programmes supplement and reinforce one another. Selected thematic objectives address the development needs existing in Upper Norrland that the European Regional Development Fund can support. Other thematic objectives are fulfilled in other Structural Funds programmes such as the European Social Fund Programme, the Rural Development Programme and the interregional programmes in the programme area. Upper Norrland will strengthen growth and employment during the programming period 2014-2020 through cooperation and synergies within and between programmes and funds.

Within selected thematic objectives and investment priorities, the regional analysis prepared for the programme-drafting process and experience from the previous programming period will underpin the selection of specific objectives, activities and target groups.

Strengthening research, technological development and innovation

Under the flagship initiative of the **Europe 2020 strategy**, *Innovation Union*, the EU is to create smart growth. Smart growth means improving results in education, research and innovation and ensuring that innovative ideas can be converted into products and services that create growth and employment.

The Partnership Agreement and the government guidelines for programme preparation emphasise the importance of the operational programme meeting the objectives of the national innovation strategy, which among other things stresses greater interaction with higher education and the importance of a research and innovation structure being accessible for small and medium-sized enterprises. According to this, innovations may be new or improved goods, services, organisational methods or

technological solutions, or the development of design, business and organisational models that are implemented in existing activity.

A large proportion of the innovations take place on an ongoing basis in small and medium-sized enterprises. Another source of innovation is the results from the research that can be converted into new solutions and value creation in new or existing enterprises.

The regional development strategies (RDSs) and regional innovation strategies (RISs) emphasise the importance of strengthening innovative environments, promoting collaboration within and between the innovation systems for the region's innovativeness and, in that way, attaining sustainable regional growth. In a globally interlinked economy with increased competitiveness, development of innovation is expected to lead to increased sustainable growth with more viable enterprises and more jobs. Investments in research, technological development and innovation are to be prioritised for the regional focal areas, with the aim of strengthening the international competitiveness of Upper Norrland. Such development is facilitated by knowledge bridges and close cooperation being established between enterprises and academia in the region.

According to the **regional analysis**, the dense and knowledge-intensive environments in Upper Norrland are principally concentrated in localities close to the region's universities and research institutes. This means that the opportunities for innovation support look different in different parts of the region, which necessitates location-independent innovation support systems in the more sparsely populated environments of the region.

Only 3 % of Swedish enterprises with innovative activity are located in Upper Norrland, while the research and development efforts of enterprises are crucial in developing new innovations. Enterprises in Upper Norrland account for less than 0.5 % of the resources earmarked for R&D in the region. A challenge for the region is that the enterprises do not participate to a sufficient degree in the development of knowledge that takes place at universities and research institutes. A higher rate of participation would mean that enterprises to a greater extent availed of R&D results, ideas and knowledge. An equally great challenge is that universities and research institutes do not respond to the enterprises' circumstances and development needs. There is a fundamental need for greater capacity for innovation support in the region if the enterprises are to be able to increase their R&D activity.

Utilising the creativity that various people possess creates a foundation for innovative thinking, renewal and a more entrepreneurial climate. Both women and men and people born abroad therefore need to gain access to the innovation system throughout Upper Norrland. The way innovation and innovation development are viewed in the region needs to be broadened, and both incremental and radical innovations need to be made possible.

There is potential in open innovation systems, where operators such as researchers, public-sector and non-profit operators, users, customers and entrepreneurs from different sectors, regions and countries interact. This is particularly important in view of the sparse population structure and the distances from larger markets in region.

The regional analysis shows that the proportion of enterprises collaborating outside the region has decreased since 2002. This means that the enterprises lose out on valuable international cooperation and knowledge.

Experience from the previous programming period shows that it is difficult to carry out commercialisation over a period of 3 years from the concept stage. Nor have the projects that have been financed been focused in all respects on the objective, that is to say the commercialisation of products and services. The projects during the previous programming period were focused more closely on operations in the form of preparatory activity for collaboration between academia and trade and industry. Experience also shows that other weak points in the innovation systems are access to a critical and diversified mass and the absence of integration of horizontal criteria in the activity.

Strengthening research, technical development and innovation are also prioritised in **other strategies and programmes**. As a result of the regional Structural Funds programme, it is possible to support strategically preparatory operations aimed at increasing the participation of enterprises in international programmes such as Horizon 2020 and COSME. Other clear links in the priority axis are in the EU Strategy for the Baltic Sea Region, where one example is linking the region's innovation initiatives together with similar initiatives in the Baltic Sea Region.

The European Social Fund Programme can also contribute to strengthening the development of innovation through support for skills development for those who are to take part in development. The capacity of the enterprises to avail of R&D results, ideas and knowledge depends on good skills development and skills provision in their own organisation.

Selected investment priority:

- Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies.

Enhancing access to, and use and quality of, information and communication technologies

Based on the flagship initiative of the **Europe 2020 strategy**, *A digital agenda for Europe*, the EU is to create smart growth. The objective of *A digital agenda for Europe* is to build a single digital market based on fast or superfast internet and interoperable applications, with interim targets such as broadband for everyone, higher broadband speeds and an increased proportion of households with broadband connections.

The Partnership Agreement and the government guidelines for programme preparation point out that, in sparsely populated areas, there are needs to plan and create the necessary basis for improved competitiveness and growth through investments in high-speed broadband infrastructure where commercial requirements for extended roll-out are not met. The focus is to be on linking localities and areas together, with the objective of increasing regional competitiveness and contributing to a better business

climate, sustainable growth and greater appeal. Greater access to broadband for enterprises facilitates use of IT-based solutions, products and services, which can contribute to greater accessibility and efficiency in sparsely populated areas.

In the Digital Agenda for Sweden, the Government describes how high-speed internet access is essential in enabling small and medium-sized enterprises to be established and develop in order to reach their customers, and the broadband target in the Broadband Strategy for Sweden is for 90 % of households and enterprises to have access to broadband at speeds of at least 100 Mbps in 2020.

It is emphasised in the **regional development strategies (RDSs) and regional digital agendas** that an efficient broadband infrastructure is a crucially important strategic area of development and is decisive for the region's development and growth. There is a need for continued expansion and the raising of both capacity and quality in the broadband infrastructure and for more digital applications, services and products. Most of the municipalities in the region have, or are in the process of preparing, local broadband strategies linked to the regional strategies. Based on these documents, the need for greater coverage and higher quality and capacity is clear.

The **regional analysis** shows the circumstances of Upper Norrland, with long geographical distances, sparse population and demographic challenges, demand distance-bridging infrastructure and digital solutions. Enterprise and employment need to be made less dependent on location so that the labour market becomes more flexible and skills development is made easier for the enterprises. Trade and industry need access to reliable broadband infrastructure in order to make better use of the potential in digital technology, develop new business models, pursue digital business contacts and reach new markets. Private and public digital services are needed to make broadband service available irrespective of geographical distance or population base.

It is a challenge to ensure digital participation throughout the region, as there are places in the region where there is no possibility at all of a good-quality internet connection. Coverage, capacity and quality are poorer in the mountain valleys of the region and in the municipalities with smaller populations. The analysis shows, for example, that fewer than 15 % of enterprises and inhabitants in the municipalities of Arjeplog, Kalix and Övertorneå have access to a speed of 50 Mbps.

Upper Norrland faces a shift from a production-based to a service-based economy. Access to a well extended broadband infrastructure with high capacity and quality will be significant for this shift in the region in view of the geographical conditions with long physical distances. If extended broadband roll-out cannot be made possible in the region's more remote and sparsely populated areas, there is a risk of the intra-regional differences in growth, employment and population trend being accentuated.

The enterprises that are established in the region are, in particular, micro and small businesses located in smaller localities and rural areas. Access to a high-quality broadband network with good coverage is a structural prerequisite for the development of these enterprises and the establishment of new ones. Unless they have broadband, it is not possible for them to boost their attractiveness and competitiveness in regional, national or international markets. Examples of growing industries in Upper Norrland are the tourist and experience industries, and a functioning broadband infrastructure is

crucial if this trend is to continue. A well deployed broadband network also provides the automotive and aviation industries, computer centres, the mining and wind power industries, the forest industry and the reindeer herding industry with good prospects for growth in Upper Norrland.

The fundamental requirement is for the market to provide broadband. The sparse population, combined with the geographical conditions in the region mean, however, that in certain parts of the region the conditions are not met for commercial market operators to be able to extend roll-out of broadband infrastructure. It is possible, through investments in the ERDF Programme, to bring about a structural change in which the broadband infrastructure in these areas is strengthened. This creates the necessary conditions for both growth and increased enterprise, and prepares the way for a functioning market for private operators in the region.

There is also a great need for and great potential in the development and implementation of new products and applications, as well as systems, for broader ICT use in Upper Norrland, partly to develop access to medical and social care, culture and education in sparsely populated areas, but also to foster enterprise, the development of innovation and collaboration between private and public-sector operators.

In various e-services, there is great potential for growth, development and innovation and a global market for products and services. If enterprises and entrepreneurs in Upper Norrland are to be able to avail of these opportunities, the region must be able to offer both access to high-speed broadband and a modern and digital public local environment where it is possible to devise, develop and test new services and products. Without a digitised private and public sector and with high digital participation and skills among the population and enterprises, this growth and development potential will be inhibited.

The operations in the **previous programming period** were focused on the extended roll-out of broadband and ensuring robustness and availability in networks already built. A conclusion that emerges in the participatory research for the whole country is that IT infrastructure investments should be combined with measures to ensure that the networks come into business use and consequently contribute to regional competitiveness. A well deployed network with good functionality can also contribute to efforts to bridge long distances and attract young people to remain or settle in more peripheral areas.

The digital infrastructure is identified as also being an essential requirement for growth in **other strategies and programmes**. One of the objectives in the EU Strategy for the Baltic Sea Region is to strengthen the contacts between people in the region, which includes communications networks and the internet as a basis for a borderless flow of information and for the formation of a 'single market'. The development of e-services contributes to creating synergies between the regional Structural Funds programme and the EU Strategy for the Baltic Sea Region.

The Rural Development Programme in Upper Norrland is to assist in extending deployment of broadband infrastructure in the form of local area networks in villages and smaller communities in rural areas, while the regional Structural Funds programme focuses on investments in interurban networks. Together, the two programmes can contribute to a good broadband infrastructure in the region's sparsely populated and rural areas all the way to the end-user. Measures that are financed through the ERDF programme are to be coordinated with and demarcated against resources from other

funding, for example the Rural Development Programme, national public resources and private initiatives. Collaboration, in already established structures, takes place across organisation and authority boundaries to ensure this. The financing follows the same principles as during the previous programming period, when willingness to invest on the ‘last stretch’ to reach end-users was very good.

Digital services and products often demand skills-developing efforts for the enterprises or employees who have to develop or apply the technology. There are clear links here to the European Social Fund programme. A well deployed broadband infrastructure also makes it easier to implement operations in the ESF programme, as training and operations can be made possible remotely.

Selected investment priorities:

- Extending broadband deployment and the roll-out of high-speed networks and supporting the adoption of emerging technologies and networks for the digital economy.
- Strengthening ICT applications for e-government, e-learning, e-inclusion, e-culture and e-health.

Enhancing the competitiveness of SMEs

Based on the flagship initiative of the **Europe 2020 strategy**, *An Industrial Policy for the Globalisation Era*, the EU is to create sustainable growth. The objective is for trade and industry, in particular small enterprises, to have to adapt to globalisation, the economic crisis and the shift to a low-carbon economy. EU industrial policy is to facilitate enterprise in order to make companies in the EU better equipped and more competitive, and must cover all parts of the increasingly international value chain, from access to raw materials to customer service.

The Partnership Agreement and the Government guidelines for programme preparation emphasise that a good business climate facilitates and increases interest in starting, operating and developing successful enterprises. The Government emphasises in particular the need for market-supplementing capital supply advice and customer information with a customer focus, broadened entrepreneurship, increased IT use and higher degree of internationalisation in efforts to strengthen small and medium-sized enterprises.

The **regional development strategies (RDSs) and the regional innovation strategies (RISs)** stress that a foundation for innovative thinking, renewal and a more entrepreneurial climate in Upper Norrland is built through creativity. The international competitiveness of Upper Norrland is to be strengthened by prioritising the regional focal areas. There are consequently good prospects of finding unexplored opportunities, future application and new jobs on equal terms for the region’s population.

The **regional analysis** shows that Upper Norrland has a mix of enterprises in the services, manufacturing and primary industry. Climatic and geographical conditions such as cold, darkness, distance, demographics and sparse population are often used to create innovations and businesses. There has been substantial industrial growth in region in recent years, despite an economic downturn.

More than 90 % of enterprises in Upper Norrland have fewer than 9 employees, which means many small companies in a large geographical area. The service industries are a significant part of trade and industry in the city's larger cities. In other parts, the structure of trade and industry is unbalanced and often linked to and dependent on the rapidly growing raw-materials industry, for both employment and business activity. This makes the region highly vulnerable to an economic downturn in certain sectors and in certain places. The region's sparse population structure and long distances make it difficult for the diversity that is demanded in trade and industry and calls for innovative thinking and innovative solutions in enterprise.

The regional analysis shows that around half of all business operators in Upper Norrland are over the age of 55. The analysis highlights challenges such as weak shifts of ownership and generation in enterprises and that the proportion of young people starting businesses is lower than the national average. This is also due to a declining and increasingly ageing population, which is more commonly the case in sparsely populated areas.

The region's labour market is clearly segregated by gender, with a preponderance of women in the public sector working in health and medical care and education. The majority of men work in the private sector and construction, transport and manufacturing. Most people who start businesses do so in an industry in which they have previous experience. The same applies to enterprise among people born abroad. 7 % of enterprises in Upper Norrland are run by a person of foreign background, compared with the national figure of 12 %. This structural lock-in contributes to reinforcing outward migration and segregation, which in the long term have an adverse impact on the region's employment and attractiveness.

Enterprises in Upper Norrland experience access to capital and infrastructure as greatly inhibiting the growth of enterprises. The supply of capital in Upper Norrland is unfocused, and the roles and policies of operators in relation to the different stages of development of enterprises are unclear. There is particularly great uncertainty for new business start-ups or enterprises wishing to make a leap forward in the market. Access to loan capital may be an obstacle to growth, particularly for enterprises owned by women and people born abroad.

A further challenge is the weak market presence of businesses and establishment of a presence in international markets. The regional analysis shows that the proportion of enterprises collaborating outside the region has decreased since 2002. The proportion of enterprises wishing to grow in the international market is, furthermore, lower in Upper Norrland than the national average. This is a matter of particular concern for a region with a small internal market and long distances to travel.

During the **previous programming period**, operations to induce more people to start businesses were mainly implemented, in contrast to operations to develop enterprises that have an aspiration to expand greatly, known as accelerator businesses. The efforts directed at creative and cultural industries, where there is a large proportion of young adults, have been successful, while the horizontal criteria can be put to better use as strategic tools in business and activity development.

A new type of financing tool has been tested, in the form of a commitment to venture capital funds. On the other hand, the opportunities are limited with regard to finding

finance for early stages in the development of an enterprise, that is to say when an enterprise is to be built up and develop and launch its products/services. The funding that has existed in previous programmes has been too small in these contexts.

Improving the competitiveness of small and medium-sized enterprises is also prioritised in **other strategies and programmes**. The EU Strategy for the Baltic Sea Region prioritises work on entrepreneurship and the emergence of small and medium-sized enterprises. Operations in the framework of implementation of the strategy will be concentrated on platform building for trade and industry, development of support for entrepreneurship and innovation, green shift and operations aimed at greater internationalisation for the enterprises.

The operations under the ERDF programme are focused chiefly on development at region- or municipality-wide level, while the Rural Development Programme and the EMFF have a more local outlook. The programmes have good opportunities to supplement one another with regard to operations aimed at the development of the visitor industry or small and medium-sized enterprises.

To strengthen enterprise and growing businesses, there is a need for operations to enhance the skills of those who take part in this development. These types of operations are principally financed through the European Social Fund. Other clear links between the ERDF and the ESF are support for areas such as entrepreneurship among young people, social enterprise and implementation of the horizontal criteria. Coordination can take place through the possibility of cross-financing in the programme concerned or collaborating ERDF and ESF projects built on common needs and challenges in Upper Norrland.

The ERDF programme will actively support operations for internationalisation and the opportunities for enterprises to take part in the EU sector programmes, such as COSME and Creative Europe.

Selected investment priorities:

- Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators.
- Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes.

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

Under the flagship initiative in the Europe 2020 strategy, *Resource-efficient Europe*, the EU is to create sustainable growth. The objectives are, among other things, to create a more competitive low-carbon economy with efficient and sustainable use of resources, protect the environment, reduce emissions and halt losses of biodiversity, as well as to benefit from the EU's leading position in new green technology and environmentally friendly production methods.

The Partnership Agreement and the government guidelines on programme preparation emphasise energy saving and technology-developing operations to support

the shift to a low-carbon economy. Support for investments by small and medium-sized enterprises aimed at improving the energy efficiency of companies has a positive impact on the environment and contributes to greater energy awareness. Procurement is an effective instrument for achieving energy savings and developing energy-efficient products and services. Networks, incubators, clusters and other types of collaboration between operators can result in an exchange of shared experiences and synergies. **The regional development strategies** for Upper Norrland establish that the region must reduce its greenhouse gas emissions, both through increased use of renewable energy and by increasing energy and resource efficiency in all sectors of society. It is emphasised in the programmes that the region has great opportunities to make a low-carbon economy a driver for the development of technology, products and services in all sectors. The **regional climate and energy strategies** also emphasise the importance of working on climate and energy issues from a growth perspective. The natural resources in the region represent a strength and should be refined or processed to a greater extent within the region.

The regional analysis shows that Upper Norrland is well placed for the shift to a greater proportion of renewable energy. Hydro power is well developed and accounts for the predominant share of energy production in Upper Norrland. Hydro power consequently makes a substantial contribution to a carbon-neutral energy supply in the region. The forests represent a significant resource, and there is top-level knowledge and experimental activity in the region on energy technology linked to forest raw material. An obstacle to the shift to renewable energy is, however, that established distribution systems are, to a great extent, lacking, which makes it more difficult to establish a functioning market for renewable energy from forest raw material. Low energy prices also complicate development.

The region has large land areas that are suitable for wind power, and despite long and cold winters there is an unutilised resource in solar energy. Expanding wind power makes great demands on effective community planning with respect to natural and cultural amenities and strong democratic involvement in the processes.

Facilitating the shift to a greater share of renewable energy by fostering a diversified and functioning market poses a challenge. Greater capacity to use, store and distribute renewable energy and effective community planning are required for this purpose. Technological development is proceeding. What is predicted one year to be the energy solution of the future may be outdated a few years later. There is great potential to increase the use of renewable energy, and the region needs to adopt a wide range of business models, technologies and energy sources.

The regional analysis shows that Upper Norrland has high energy intensity compared with Sweden as a whole. The region's greenhouse gas emissions are principally due to carbon dioxide emissions caused by burning fossil fuels, principally oil and coal in the transport, industrial and energy supply sectors. High emissions from energy supply are largely due to the needs of the metal and mineral industry for energy supply, where the region's large companies are located.

Passenger, bus and truck traffic are the predominant source of emissions for carbon dioxide in the transport sector. The region is sparsely populated, and the level of transport performance in tonnes per kilometre is high in relation to production. To contribute to national and international objectives being met, the region must reduce its

carbon dioxide emissions from transport by making transport more efficient, but also by increasing the proportion of renewable energy in transport performance.

Efficient use of energy and other resources is important for the competitiveness of trade and industry. Lack of information and knowledge, shortage of manpower and financial resources and the fact that the issue is sometimes given low priority mean, however, that some improvements fail to materialise. Good energy efficiency necessitates adopting a comprehensive approach and often means changes in several areas of operation, which also makes implementation more difficult. Low prices for energy mean that the incentives for improved energy efficiency are small.

Greater demand for low-carbon technology from the region's enterprises can contribute to fostering innovation and growth in the region's environmental technology companies. This can also foster greater collaboration between trade and industry and universities in order jointly to meet the needs of enterprises.

A large amount of energy is consumed in housing and commercial premises. The analysis shows that energy efficiency can be greatly improved in terms of both the climate shells and operation of properties, for example ventilation, control and lighting. Municipalities, county councils and municipal companies are relatively large-scale owners of properties in the region, both housing and energy-demanding facilities such as schools, sports facilities and healthcare facilities.

A low rate of housing construction over a long period has led to the current situation where there is a great need to build new homes. This means that it is now possible to reduce the sector's carbon dioxide emissions in the long term by building in a low-carbon manner.

New construction systems are being developed continuously, as are new materials, architecture and technologies. The quantity of energy that will be used during the whole lifetime of a building is greatly affected by the choice of system of construction and materials. Stricter energy and environmental requirements and rising energy prices favour energy-smart and lifecycle-based building technology becoming an important element in new construction, extension and refurbishment of homes and commercial premises.

Upper Norrland is a sparsely populated region geographically far away from the large markets for low-carbon technology and community planning. The region therefore faces a particular challenge in reaching out, developing business contacts and exchanging experience and also demonstrating its know-how in an international arena.

During the **previous programming period**, there was no separate priority axis or action that brought together projects focused on a shift to a low-carbon economy. Projects with this orientation are to be found in actions related to increasing new enterprise and strengthening existing businesses and increasing the commercialisation of research results. The projects that have been financed have not, however, been able to demonstrate the enormous potential that exists in the region regarding access to renewable energy. There are great opportunities for further work on these resources [6].

Supporting the shift to a low-carbon economy is also prioritised in **other strategies and programmes**. The EU Strategy for the Baltic Sea Region prioritises operations to promote a shift to more low-carbon operations, focusing among other things on greater use of renewable energy resources, as well as improved energy efficiency.

The Rural Development Programme supports operations aimed at increased production of renewable energy from agriculture and investment support for more efficient energy utilisation in rural enterprises, which makes collaboration across programme boundaries possible.

The European Social Fund Programme can also contribute to supporting the shift to a low-carbon economy through support for skills development for those enterprises and sectors which are to take part in development.

The national ERDF programme is to complement the operations carried out in the eight regional Structural Funds programmes. It is also to facilitate collaboration between regional, national and European policy. The programme is to support energy efficiency in enterprises, procurement of innovation and technology and actions that increase the supply of venture capital in the field of renewable energy.

Selected investment priorities:

- Promoting energy efficiency and renewable energy use in enterprises.
- Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector.

Promoting sustainable transport and removing bottlenecks in key network infrastructures

Under the flagship initiative in the Europe 2020 strategy, *Resource-efficient Europe*, the EU is to create sustainable growth. Sustainable growth means a more resource efficient, greener and more competitive economy.

The Member States of the EU have established a core structure for the EU transport system — TEN-T. The European Commission White Paper (Roadmap to a Single Transport Area — Towards a competitive and resource efficient transport system) highlights initiatives aimed at contributing to fulfilling objectives for greater mobility, removing strategic bottlenecks and consequently contributing to increased growth and employment, as well as reducing carbon dioxide emissions in the transport sector.

The Partnership Agreement and the government guidelines for programme preparation point out that initiatives related to the transport system, for example investments in infrastructure, may prove crucial for trade and industry, the labour market and the living environment in the sparsely populated parts of the country. Support for sustainable transport through the ERDF must be used for measures that strengthen business and the labour market and contribute to attractive living and residential environments. The operations are to promote transport systems that contribute to or strengthen the links to TEN-T.

Prioritised infrastructure investments are in line with the **regional development strategies (RDSs) and the regional transport plans**. Investments in infrastructure in Upper Norrland are deemed to have positive effects on the social economy, on accessibility for people and goods and to contribute to fulfilling the transport policy objectives of a long-term sustainable transport system.

Upper Norrland has both north-south and east-west strategically designated transport routes of great significance. The EU has decided that the north-south route is to form part of the TEN-T Core Network and that the east-west route is to be included in the Comprehensive Network.

The **regional analysis** shows that Upper Norrland, as a result of its geographical location and the long distances between localities, is heavily dependent on a functioning and robust transport for both goods and passenger traffic. Large investments are planned in the region, for instance in the mining industry, the visitor industry, the engineering industry and the energy sector, which increases the need for a functioning transport system for both goods and passenger traffic.

See annex Tables and figures Upper Norrland for figure showing industry investments.

60 % of goods transport in northern Sweden goes by **rail**. The primary industries in Upper Norrland today dispatch large volumes of high-grade and strategic products by train, from the raw material in the north with successive processing in other parts of Sweden to the large markets in Europe and the rest of the world. It can be mentioned, by way of example, that 90 % of EU iron ore production takes place in the programme area, generating significant added value in Europe through processing and employment. The analysis shows that, for the primary and raw-materials industries, transport by rail is often the only alternative in view of risk factors, type of goods, reliability and frequency of delivery.

However, the analysis shows that vulnerability on existing railways, both the main routes and more fine-meshed rail network, is high. The Vännäs to Boden section of the main line through Upper Norrland is a primary transport route for Swedish exporting industry, and is regarded by transport operators as one of the worst bottlenecks in the country, with steep inclines, tight bends and low speeds, as well as very small available capacity and frequent disruption. Another shortcoming of the region's railway system, which connects with the main-line system, is that to a great extent it is non-electrified and lacks a modern traffic management system, and has low capacity due to being single-track with few meeting points. This means sensitivity to interruptions, leading to great financial consequences for industry and the national economy.

Capacity in the rail network, as well as access to reloading terminals, according to the analysis of the programme area, does not always meet the demand from trade of industry. Goods exports from Upper Norrland rose by no less than 40 % between 2010 and 2011, putting a great strain on the railways and shipping.

Where there is a shortage of capacity, price may be a crucial factor in determining who can make use of the available space. The large suppliers of raw materials, who in many

cases do not have any alternative to the railways, may therefore sideline goods transport for small and medium-sized enterprises and passenger services. Furthermore, enterprises are well aware of the shortages in capacity and quality and also refrain from looking for slots on the railways, opting for logistically worse alternatives instead. There is therefore a risk of capacity shortages and quality deficiencies leading to an increase in heavy truck transport, with an increased risk of accidents and a greater impact on climate change and the environment.

The public **ports** of Upper Norrland handle containers, iron ore pellets, steel billets, forest products, wood products, pulp and passenger traffic, and receive the oil needed by the region. The region also has some industrial ports directly linked to the region's industries located close to the coast, such as BillerudKorsnäs, Karlsborgs Bruk and Boliden's Rönnskärsverk. The analysis shows that the trend is towards ever larger vessels and increased combined and container transport, a situation which will be accentuated by the introduction of the Sulphur Directive in 2015. To bring about a long-term sustainable transport system, it is necessary for the railways to be linked more effectively to shipping through the ports. In addition to special efforts related to increased availability, operations are also required for export-intensive industry in Upper Norrland to bring about innovative solutions for shipping, aimed at strengthening their competitiveness and ability to meet increasing environmental requirements. The ports can also collaborate more and make even better use of each other's special circumstances, while increased costs are driving demand for ever larger vessels.

Enterprises, in particular in the visitor industry, are demanding improved communications for passenger services. The transport infrastructure has to meet the wishes of both visitors and employees to reach visitor attractions and commute to work.

Partly due to the lack of a railway infrastructure, journey times between localities in Upper Norrland in many cases are too long for it to be possible to include them in common labour markets. The region's analysis shows that a more efficient and sustainable transport infrastructure and rail-mounted public transport contribute to functional regional enlargement and better employment opportunities. This strengthens the opportunities of trade and industry for skills provision, collaboration and cluster formations between companies. Advanced and specialised activities also gain expanded opportunities for interaction and better innovation environments.

As a result of the long distances in the region, the costs faced by enterprises for transport infrastructure are higher than for enterprises that are closer to the market. Transport costs account for 20 % of the total cost of production for some enterprises in the region. The many interruptions to service mean that transport times are long and deliveries are unreliable, which may lead to losses being incurred by enterprises that have to deliver on time to other parts of Sweden and Europe.

The transport costs of enterprises and their distance from larger markets in terms of time can be reduced by improving the opportunities of enterprises to choose among modes of transport, reducing transport and journey times and facilitating efficient transfer between modes of transport. Supporting the development of improved passenger transport enables visitors to avail of the growing visitor industry and enterprises to find labour with the right skills more easily. In that way, the region's trade and industry can be put in a position to improve their competitiveness, growth and employment.

Infrastructural initiatives during the **previous programming period** have promoted efficient, safe and environmentally sound systems for goods transport and operations that have favoured sustainable regional enlargement. This has primarily resulted in investments in improved goods and transport logistics, airports and ports. Investments in intermodal transport solutions have resulted in existing bottlenecks having been eliminated. The outcome has been more effective coordination between, for example, rail, road and ports/shipping, which has been of value to trade and industry in the region. A feature common to actions of this type has been that, for the most part, there is no given financing scheme. Most of the investment projects that have been implemented have therefore been dependent on finance from the ERDF.

Sustainable transport infrastructure is also prioritised in **other strategies and programmes**. There is linkage to, and coordination with, other programmes: the EU Strategy for the Baltic Sea Region focuses strongly on the extensive transport on, to and around the Baltic Sea. The Baltic Sea is an important connecting link with the rest of the world and for international trade. The development of smart transport solutions and green corridors in the east-west connections, and of effective links to and between the northern regions, is prioritised in the strategy. To improve internal and external transport links, there is a need for strengthened cooperation between administrative levels and geographical entities around the Baltic Sea.

Work on a trans-European network for transport (TEN-T) is prioritised in the EU, and several important links in this network are within the programme area. This priority axis is linked to the EU's flagship initiative 'Resource-efficient Europe', which identifies the importance of sustainable transport systems to improve competitiveness.

Operations under the European Regional Development Fund for improved public transport and greater mobility in the labour market also facilitate implementation of operations in the ESF Programme and the Rural Development Programme, for example by making it easier for people to commute to work and for studies.

Selected investment priority:

- Developing and improving environmentally-friendly (including low-noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility.

Sustainable development in a sparsely populated region

In the run-up to the new programming period 2014-2020, the EU has highlighted the need to work in a sector-integrated manner on urban development and has indicated this as a priority area for regional Structural Funds programme. Among other things, this involves work on the needs that arise as a result of an increased population in the areas of the region that already have high population density, but also meeting the need for collaboration between urban and rural areas to develop an attractive region together. Increased pressure on cities leads to issues of infrastructure, construction, waste

management and energy supply needing to be tackled, as well as various social challenges, for example segregation and unemployment.

Intra-regional urbanisation is taking place in Upper Norrland, which poses increased challenges, but also offers opportunities, for the urban areas where the population is increasing, at the same time as sparseness of population in the region at large is being accentuated. There is a need to develop methods and working practices in the region that encourage collaboration between urban and rural areas to find attractive and sustainable solutions to the challenges and opportunities the region has.

Earmarking resources for sustainable urban development is not a priority in the Structural Funds programme for Upper Norrland. Measures in relation to sustainable urban development can be taken in selected priority axes.

In priority axis 1, innovative pilot projects can contribute to cities and central localities in the region serving as test beds for knowledge building, research and innovations on sustainable urban development. A system and innovation perspective is integrated by involving city and surrounding countryside. Knowledge can be built up in the region that is also applicable to many other cities in Europe with similar societal challenges.

Important areas for sustainable urban development, such as strengthened enterprise relating to culture, architecture and design, can be developed in priority axes 2 and 3. Efforts towards positive socio-economic development in the region can also be strengthened through operations to increase enterprise in groups that are under-represented in trade and industry.

Priority axis 4 comprises activities that strengthen the shift to a low-carbon economy. Work on sustainable community development is linked to the opportunities provided by the challenges of climate, environment and energy, among other things in relation to housing construction and physical upgrading of areas.

In priority axis 5, activities can be developed to tackle problems with congestion, noise and air pollution, factors that have a limiting effect on the growth and development of cities and central localities, as well as on regional enlargement and access to labour markets. More modes of transport and better opportunities to combine them contribute, among other things, to enabling rural areas to benefit from the sustainable growth that is created in the cities.

Ex-ante evaluation of proposals for ERDF programme in Upper Norrland 2014-2020

The Swedish Agency for Growth Policy Analysis initially attended one of the start-up meetings of the programme secretariat, held on 9 April 2013, to provide information on the tasks and the questions on which the ex-ante evaluation was intended to be based.

On three occasions, on 20 May, 12 August and 4 September 2013, the programme secretariat submitted draft programmes and regional analysis to the Swedish Agency for Growth Policy Analysis and received recommendations and proposals for improvement that have contributed to developing programme descriptions, indicators and programme logic.

In addition to this, the programme secretariat has had written and verbal dialogue with the Swedish Agency for Growth Policy Analysis for consultation and guidance. The reports and the verbal opinions presented informally have been of great value.

The programme secretariat has ensured that the analysis made by the Swedish Agency for Growth Policy Analysis of what should be adjusted has met with a response. The indicators have been adopted as they have been formulated and adopted by the Swedish Agency for Economic and Regional Growth. The regional Structural Funds programme for Upper Norrland has relevant indicators that are correctly formulated and follow the lists that the Swedish Agency for Economic and Regional Growth has indicated for result and output indicators. The programme has chosen reasonable target values for all activity indicators and target values that are in line with other programmes. The indicators are therefore deemed to be set realistically.

The programme secretariat has also taken account of the comments from the Swedish Agency for Growth Policy Analysis regarding possible improvements. The description of specific regional conditions has been made more prominent in the text of the analysis, the scope of the analysis has been clarified and a concluding summary has been added. The justification for selected priority axes and for the allocation of resources to them has been strengthened. The views of the Swedish Agency for Growth Policy Analysis have been taken into account in connection with the adjustment of selected indicators, their formulation and their target values.

Certain changes have been made to indicators and milestones based on the concluding report of the Swedish Agency for Growth Policy Analysis.

[1] The European Structural Investment Funds (the ESI Funds): the European Regional Development Fund, the European Social Fund, the European Rural Development Programme and the European Maritime and Fisheries Fund.

[2] The term innovation covers product innovations, process innovations, marketing innovations and organisational operations. It concerns new ways of creating value for society, enterprises and individuals, economically, socially and/or environmentally. Value arises in application, use or dissemination, i.e. when innovation is put to use in a commercial market or is implemented in a business activity. See also the Regional Analysis.

[3] See the Swedish Agency for Economic and Regional Growth definition of cultural and creative sectors.

[4] Principally the Norrbotten and Västerbotten development strategies (RDSs), innovation strategies (RISs), county transport plans, regional digital agendas, and the regional climate and energy strategies with associated action programmes.

[5] Upper Norrland is one of the Northern Sparsely Populated Areas: <http://www.nspa-network.eu/>.

[6] Följeforskning i programråde Övre Norrland (Participatory research in the Upper Norrland programme area), Final report, Swedish Agency for Economic and Regional Growth 2011.

1.1.2 A justification for the choice of thematic objectives and corresponding investment priorities having regard to the partnership agreement, based on an identification of regional and, where appropriate, national needs including the need to address the challenges identified in relevant country-specific recommendations adopted in accordance with Article 121(2) TFEU and the relevant Council recommendations adopted in accordance with Article 148(4) TFEU, taking into account the ex-ante evaluation.

Table 1: Justification for the selection of thematic objectives and investment priorities

Selected thematic objective	Selected investment priority	Justification for selection
01 — Strengthening research, technological development and innovation	1b — Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies	<p>The Partnership Agreement, the government guidelines for programme preparation, the regional development strategies (RDSs), the regional innovation strategies (RISs), the regional analysis and experience from the previous programming period justify the need for operations in the chosen investment priority. The region faces the following challenges, which need to be addressed:</p> <ul style="list-style-type: none"> • low R&D intensity in enterprises; • inadequacies in innovation support systems; • the level of involvement of enterprises in innovation processes is low; • the concept of innovation should be broadened; • open innovation processes need to be developed; • weak international collaboration. <p>Most of the challenges are due to the need to address the region’s sparse population structure and long distances.</p>

Selected thematic objective	Selected investment priority	Justification for selection
02 — Enhancing access to, and use and quality of, information and communication technologies	2a — Extending broadband deployment and the roll-out of high-speed networks and supporting the adoption of emerging technologies and networks for the digital economy	<p>The Partnership Agreement, the government guidelines for programme preparation, the regional development strategies (RDSs), regional digital agendas, the regional analysis and experience from the previous programming period justify a need for operations in the chosen investment priority. The region faces the following challenges, which need to be addressed:</p> <ul style="list-style-type: none"> • broadband is lacking in some crucial places in the region; • enterprises and the public sector do not utilise the potential in digital technology. <p>Most of the challenges are due to the need to address the region’s sparse population structure and long distances.</p>
02 — Enhancing access to, and use and quality of, information and communication technologies	2c — Strengthening ICT applications for e-government, e-learning, e-inclusion, e-culture and e-health	<p>The Partnership Agreement, the government guidelines for programme preparation, the regional development strategies (RDSs), regional digital agendas, the regional analysis and experience from the previous programming period justify a need for operations in the chosen investment priority. The region faces the following challenges, which need to be addressed:</p> <ul style="list-style-type: none"> • broadband is lacking some crucial places in the region; • enterprises and the public sector do not utilise the potential in digital technology.

Selected thematic objective	Selected investment priority	Justification for selection
		<p>Most of the challenges are due to the need to address the region's sparse population structure and long distances.</p>
<p>03 — Enhancing the competitiveness of small and medium-sized enterprises, the agricultural sector (for the EAFRD) and the fisheries and aquaculture sector (for the EMFF)</p>	<p>3a — Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators</p>	<p>The Partnership Agreement, the government guidelines for programme preparation, the regional development strategies (RDSs), the regional innovation strategies (RISs), the regional analysis and experience from the previous programming period justify the need for operations in the chosen investment priority. The region faces the following challenges, which need to be addressed:</p> <ul style="list-style-type: none"> • many small enterprises in a large geographical area; • demographic trends; • unbalanced and vulnerable structure of trade and industry; • young people, women and people born outside Sweden do not operate businesses to the same extent; • owners of enterprises ever older; • shortage of capital in the early stages; • weak international presence and cooperation. <p>Most of the challenges are due to the need to address the region's sparse population structure and long distances.</p>
<p>03 — Enhancing the competitiveness of</p>	<p>3d — Supporting the capacity of SMEs to grow in regional,</p>	<p>The Partnership Agreement, the government guidelines for</p>

Selected thematic objective	Selected investment priority	Justification for selection
<p>small and medium-sized enterprises, the agricultural sector (for the EAFRD) and the fisheries and aquaculture sector (for the EMFF)</p>	<p>national and international markets, and to engage in innovation processes</p>	<p>programme preparation, the regional development strategies (RDSs), the regional innovation strategies (RISs), the regional analysis and experience from the previous programming period justify the need for operations in the chosen investment priority. The region faces the following challenges, which need to be addressed:</p> <ul style="list-style-type: none"> • many small enterprises in a large geographical area; • demographic trends; • unbalanced and vulnerable structure of trade and industry; • young people, women and people born outside Sweden do not operate businesses to the same extent; • owners of enterprises ever older; • shortage of capital in the early stages; • weak international presence and cooperation. <p>Most of the challenges are due to the need to address the region's sparse population structure and long distances.</p>
<p>04 — Supporting the shift towards a low-carbon economy in all sectors</p>	<p>4b — Promoting energy efficiency and renewable energy use in enterprises</p>	<p>The Partnership Agreement, the government guidelines for programme preparation, the regional development strategies (RDSs), the county climate and energy strategies, the regional analysis and experience from the previous programming period create a need for operations in the chosen investment priority. The region faces the following challenges,</p>

Selected thematic objective	Selected investment priority	Justification for selection
		<p>which need to be addressed:</p> <ul style="list-style-type: none"> • high energy intensity; • poorly expanded distribution systems for renewable energy; • this issue has low priority due to low energy prices; • long transport distances; • relatively great need for new construction in coming years; • vulnerable ahead of changes in the energy market. <p>Most of the challenges are due to the need to address the region’s sparse population structure and long distances.</p>
<p>04 — Supporting the shift towards a low-carbon economy in all sectors</p>	<p>4c — Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector</p>	<p>The Partnership Agreement, the government guidelines for programme preparation, the regional development strategies (RDSs), the county climate and energy strategies, the regional analysis and experience from the previous programming period create a need for operations in the chosen investment priority. The region faces the following challenges, which need to be addressed:</p> <ul style="list-style-type: none"> • high energy intensity; • poorly expanded distribution systems for renewable energy; • this issue has low priority due to low energy prices; • long transport distances; • relatively great need for new construction in coming years; • vulnerable ahead of changes

Selected thematic objective	Selected investment priority	Justification for selection
		<p>in the energy market.</p> <p>Most of the challenges are due to the need to address the region's sparse population structure and long distances.</p>
<p>07 — Promoting sustainable transport and removing bottlenecks in key network infrastructures</p>	<p>7c — Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility</p>	<p>The Partnership Agreement, the government guidelines for programme preparation, the regional development strategies, the county climate and energy strategies, the regional analysis and experience from the previous programming period create a need for operations in the chosen investment priority. The region faces the following challenges, which need to be addressed:</p> <ul style="list-style-type: none"> • shortages/bottlenecks in the railway systems; • shortages/bottlenecks at the transition between different modes of transport; • heavy pressure on the region's roads; • shortage of capacity at the region's ports; • difficulties in adjusting to new environmental requirements; • shortage of public transport in certain areas. <p>Most of the challenges are due to the need to address the region's sparse population structure and long distances.</p>

1.2 Justification for the financial allocation

Justification for the financial allocation (Union support) to each thematic objective and, where appropriate, investment priority, in accordance with the thematic concentration requirements, taking into account the ex-ante evaluation.

The allocation of resources is principally determined by directives from the European Commission and the Swedish Government. Account has been taken of experience from the previous programming period 2007-2013. There are two sources of funding for the regional Structural Funds programme for investments in growth and employment Upper Norrland 2014-2020: one via general allocation based on the government decision on allocation in Sweden, and one allocated to the sparsely populated areas based on the Commission criteria.

It is a requirement for the general allocation to Upper Norrland that [1]:

- at least 70 % of the programme is earmarked for thematic objectives 1, 2 and 3;
- at least 13 % of the programme is earmarked for thematic objective 4;
- Upper Norrland decides for itself how the remaining 17 % is to be allocated between selected priority axes, that is to say objectives 1-4 and 7.

The resources for allocation to sparsely populated areas can finance thematic objectives 1, 2, 3, 4 and 7. These resources are to be counted over and above the other earmarking, which for the regions concerned means that they are allowed to choose for themselves how the resources are to be allocated between these thematic objectives.

The allocation of resources is adapted to the specific objectives and activities expressed in the selected thematic objectives, so that the operations will make effects and results possible for the programme area in the best way possible.

Other programmes and funds in the programme area also set aside resources for the thematic objectives included in the regional Structural Funds programme for Upper Norrland. The Rural Development Programme, for example, has allocated resources to operations that contribute to a low-carbon economy. The national regional Structural Funds programme also has extensive operations in thematic objectives 1, 3 and 4.

Thematic objective 1:

30 % of the EU resources are earmarked for thematic objective 1: 'Strengthening research, technological development and innovation'. In comparison with the programming period 2007-2013, this means that the allocation of resources to planned operations increases.

Upper Norrland needs to develop more innovative environments, but also increased utilisation of the results of research, in accordance with the recommendations of the European Commission. Experience from the previous programming period shows that innovation initiatives produce positive results, but that there is also demand for expanded

operations to support the involvement of trade and industry, which is reflected in the allocation of resources.

The allocation of resources also takes account of the fact that all the innovation operations have been focused on thematic objective 1, regardless of whether innovations in information and communication technology or innovations for a more low-carbon economy are concerned. The purpose of this is to make intersections possible between focal areas, avoid fragmentation of the programme and create clarity for the applicant.

Thematic objective 2:

5 % of the EU resources are earmarked for thematic objective 2: ‘Enhancing access to, and use and quality of, information and communication technologies’.

Upper Norrland has a continued need for the extended roll-out of high-speed broadband, while there is also demand for operations for strengthened ICT applications. There are areas and places that completely lack access to good-quality broadband and where the market does not deem it profitable to invest. Operations are to focus on interurban broadband networks.

The allocation of resources reflects the fact that the programme also enables development of ICT-based products and services in thematic objectives 1 and 3. Other programmes in the programme area, such as the Urban Development Programme, also allocate resources to this thematic objective 2.

Upper Norrland will improve its prospects of strengthening enterprise and employment with the assistance of information and communication technology through cooperation and synergies in and between programmes and funds during the programming period 2014-2020.

Thematic objective 3:

35.3 % of the EU resources are earmarked for thematic objective 3: ‘Enhancing the competitiveness of small and medium-sized enterprises’. In comparison with the programming period 2007-2013, this means that the allocation of resources to planned operations decreases. This thematic objective is allocated the greatest resources in the programme.

Upper Norrland needs extensive operations to support new enterprise and enterprises that wish to grow. It is crucial to strengthen access to capital in early stages and improve the possibility of reaching new international markets.

The allocation of resources takes account of the fact that the operations can be costly per enterprise because of the geographical distances and sparse population in the region and because large parts of the region do not have a functioning market for the supply of capital. Thematic objective 3 also supports operations to enhance the use of ICT by enterprises, as well as business development based on environmentally driven products and services.

Thematic objective 4 [2]

5.7 % of the EU resources are earmarked for thematic objective 4: ‘Supporting the shift towards a low-carbon economy in all sectors’. Only a small number of projects relating to energy efficiency and renewable energy have been run during the programming period 2007-2014. In comparison with these, it is estimated that the allocation of resources for planned operations will approximately double for the period 2014-2020.

Upper Norrland needs operations to foster energy efficiency and use of renewable energy. The allocation of resources takes account of research, innovation and development of products and services in the area being made possible in thematic objectives 1 and 3, and operations for a more low-carbon infrastructure in thematic objective 7. Other programmes in the programme area, such as the Rural Development Programme and the national ERDF programme, also allocate resources to this thematic objective.

Upper Norrland will improve its opportunities to support the shift to a low-carbon economy through cooperation and synergies within and between programmes and funds.

Thematic objective 7

24 % of the EU resources are earmarked for thematic objective 7: ‘Promoting sustainable transport and removing bottlenecks in key network infrastructures’. In comparison with the programming period 2007-2013, this means that the allocation of resources to planned operations is maintained at the same level. Experience from the programming period 2007-2013 shows that the allocation of resources from the ERDF has been a prerequisite for many of the investment projects that have been implemented. Demand has far outstripped the budget.

In Upper Norrland, where distances within the region and to other markets are long, sustainable transport is an essential factor in the development of trade and industry and employment. Upper Norrland demands operations that make both better utilisation of existing infrastructure and new and enhanced multimodal transport links possible. There is a wish among both politicians and trade and industry to prioritise operations in the area.

The allocation of resources takes account of the fact that the operations are costly and that other programmes in the programme area do not earmark resources for this thematic objective.

Table 2: Overview of the investment strategy of the operational programme

Priority axis	Fund	Union support (€)	Proportion of total Union support for the operational programme	Thematic objective / Investment priority / Specific objective	Common and programme-specific result indicators for which a target has been set
1	ERDF	61 116 796.00	28.82 %	<ul style="list-style-type: none"> ▼ 01 — Strengthening research, technological development and innovation <ul style="list-style-type: none"> ▼ 1b — Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies <ul style="list-style-type: none"> ▼ 1 — Increasing research and innovation collaboration between academia, trade and industry, authorities and civil society ▼ 2 — Increasing innovation activity in enterprises and strengthening the development of and access to innovation-supporting systems and environments 	[101, 102]
2	ERDF	10 176 156.00	4.80 %	<ul style="list-style-type: none"> ▼ 02 — Enhancing access to, and use and quality of, information and communication technologies <ul style="list-style-type: none"> ▼ 2a — Extending broadband deployment and the roll-out of high-speed networks and supporting the adoption of emerging technologies and networks for the digital economy <ul style="list-style-type: none"> ▼ 1 — More enterprises gain access to broadband of high quality and capacity ▼ 2c — Strengthening ICT applications for e-government, e-learning, e-inclusion, e-culture and e-health <ul style="list-style-type: none"> ▼ 1 — More digital services are to be developed to create greater access to private and public services ▼ 2 — Use of digital services is to be developed to increase digital participation 	[202, 203, 204]
3	ERDF	71 843 662.00	33.88 %	<ul style="list-style-type: none"> ▼ 03 — Enhancing the competitiveness of small and medium-sized enterprises, the agricultural sector (for the EAFRD) and the fisheries and aquaculture sector (for the EMFF) <ul style="list-style-type: none"> ▼ 3a — Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators <ul style="list-style-type: none"> ▼ 1 — More new business start-ups in Upper Norrland ▼ 2 — More growing enterprises in Upper Norrland 	[0301, 0302, 306]

Priority axis	Fund	Union support (€)	Proportion of total Union support for the operational programme	Thematic objective / Investment priority / Specific objective	Common and programme-specific result indicators for which a target has been set
				<ul style="list-style-type: none"> ▼ 3d — Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes <ul style="list-style-type: none"> ▼ 1 — More small and medium-sized enterprises are growing on international new markets 	
4	ERDF	11 600 818.00	5.47 %	<ul style="list-style-type: none"> ▼ 04 — Supporting the shift towards a low-carbon economy in all sectors <ul style="list-style-type: none"> ▼ 4b — Promoting energy efficiency and renewable energy use in enterprises <ul style="list-style-type: none"> ▼ 1 — Improving energy efficiency and use of renewable energy in the small and medium-sized enterprises of Upper Norrland ▼ 4c — Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector <ul style="list-style-type: none"> ▼ 1 — Improving energy efficiency and use of renewable energy in the public sector and the housing sector 	[0401, 15, 403]
5	ERDF	48 845 549.00	23.03 %	<ul style="list-style-type: none"> ▼ 07 — Promoting sustainable transport and removing bottlenecks in key network infrastructures <ul style="list-style-type: none"> ▼ 7c — Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility <ul style="list-style-type: none"> ▼ 1 — Increasing capacity in the existing transport infrastructure for more efficient and sustainable forms of transport to the benefit of trade and industry ▼ 2 — New and enhanced multimodal transport connections for a more sustainable and efficient transition between modes of transport, to the benefit of trade and industry 	[0404, 0702, 708]
6	ERDF	8 482 624.00	4.00 %	01 — Technical assistance is to lead to the programme being implemented in an appropriate, legally sound and effective way that contributes to the objectives of the programme being met in other priority axes	[]

2. PRIORITY AXES

2.A DESCRIPTION OF THE PRIORITY AXES OTHER THAN TECHNICAL ASSISTANCE

2.A.1 Priority axis

ID of the priority axis	1
Title of the priority axis	Strengthening research, technological development and innovation

- The entire priority axis will be implemented solely through financial instruments
- The entire priority axis will be implemented solely through financial instruments set up at Union level
- The entire priority axis will be implemented through community-led local development
- For the ESF: The entire priority axis is dedicated to social innovation or to transnational cooperation, or both

2.A.2 Justification for the establishment of a priority axis covering more than one category of region, thematic objective or fund (where applicable)

2.A.3 Fund, category of region and calculation basis for Union support

Fund	Category of region	Calculation basis (total eligible expenditure or eligible public expenditure)	Category of region for outermost regions and northern sparsely populated regions (where applicable)
ERDF	More developed	Fel! Hittar inte referenskölla.	
ERDF	Outermost or northern sparsely populated	Fel! Hittar inte referenskölla.	More developed

2.A.4 Investment priority

ID of the investment priority	1b
Title of the investment priority	Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies

2.A.5 Specific objectives corresponding to the investment priority and expected results

ID of the specific objective	1
Title of the specific objective	Increasing research and innovation collaboration between academia, trade and industry, authorities and civil society.
Results that the Member States seek to achieve with Union support	<p>Innovations [1] are promoted by collaboration between the universities, research institutes, trade and industry, and authorities, in what is known as the knowledge triangle, with the goal of putting more products and services on the market more quickly. As a result of collaboration, the region's research, education and innovations can develop and become more attractive and relevant to trade and industry, researchers and society.</p> <p>With close collaboration between research and established business resources, and together with other operators in the innovation system, the regional Structural Funds programme is to contribute to the development of entirely new solutions. The region's innovative environments should serve as a form of creative workshops that also attract young adults, women and people born outside Sweden.</p> <p>As a consequence of open innovation systems, more operators with different resources can be included and contribute to fostering intersections of ideas from different sectors, regions and nations. Upper Norrland is to be a pioneer with regard to open innovation approaches in early stages, which requires an open mind to new cooperative ventures across industry and sector boundaries.</p> <p>The ability to interact with the outside world is very important for an enhanced innovation capability. The interaction provides access to a greater critical mass with more operators and greater skills. It can also contribute to capacity building in the ability of the universities, research institutes and trade and industry to assist in the EU's innovation and research programmes, for</p>

	<p>example Horizon 2020 and the programme for the Competitiveness of Small and Medium-Sized Enterprises (COSME).</p> <p>The regional Structural Funds programme is to contribute to more innovative environments where universities, research institutes, trade and industry, other public authorities and the surrounding community can meet in collaboration to become internationally competitive in their area.</p> <p>[1] Innovation is concerned with new ways of creating value for society, enterprises and individuals. The value arises in the application, use and dissemination of an innovation (when it has been put into use). The value that is created may be economic, social and/or environmental. It is only when an idea comes to be used or commercialised that it becomes an innovation. The term innovation thus covers more than technical or other types of product ideas.</p>
ID of the specific objective	2
Title of the specific objective	Increasing innovation activity in enterprises and strengthening the development of and access to innovation-supporting systems and environments
Results that the Member States seek to achieve with Union support	<p>The development of knowledge primarily in small and medium-sized enterprises needs to be continuously strengthened to foster innovative capability. There is a need to make it easier for enterprises to take part in the development of knowledge in universities and research institutions, for example through structures that foster knowledge transfer between enterprises and research environments in both directions. More products and services for an international market can be developed, commercialised or implemented with improved innovative capacity among the region's enterprises.</p> <p>The innovation support system has an important role to play in innovativeness in the region. The term innovation support system relates to all stakeholders in society who fulfil a supportive function somewhere in the chain from idea to market. These operators commonly both fulfil the role of business developers and supporters of innovation and work on various target groups and enterprises in different phases of development. Knowledge of, and access to, the supply of capital in the various</p>

stages of innovative activity are also essential requirements, as is functioning and effective market communication.

The possibility of availing of the systems and environments that promote innovation is more limited in the region's sparsely populated areas. This is a challenge that needs to be met in the form of measures that promote participation in an innovation support system that is independent of location. The development of information and communication technology makes more distance-independent collaboration between operators, and this can offset the disadvantages inherent in sparse population and the long distances between localities, enterprises and markets in and outside the region.

The operations are to contribute to greater utilisation of the results of research, ideas and knowledge in existing and new enterprises and in public-sector activity. The number of enterprises that have launched new or substantially improved products, services, processes, experiences or forms of organisation is to increase during the programming period.

Table 3: Programme-specific result indicators, by specific objective (for the ERDF and the Cohesion Fund)

Specific objective		1 - Öka forsknings- och innovationssamverkan mellan akademi, näringsliv, myndigheter och civila samhället.						
ID	Indicator	Measurement unit	Category of region (where relevant)	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
102	Andel företag (10-249 anställda) som samarbetar i sin innovationsverksamhet	Procent	More developed	39.03	2010	42.90	SCB	Vartannat år
Specific objective		2 - Öka innovationsverksamheten i företag och stärka utveckling av och tillgänglighet till innovationsstödjande system och miljöer						
ID	Indicator	Measurement unit	Category of region (where relevant)	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
101	Andel företag (10-249 anställda) med innovationsverksamhet (produkt-, process-, organisatorisk- eller marknadsföringsinnovation)	Procent	More developed	47.99	2010	52.79	SCB	Vartannat år

2.A.6 Action to be supported under the investment priority (by investment priority)

2.A.6.1 Description of the type and examples of actions to be supported and their expected contribution to the specific objectives including, where appropriate, the identification of main target groups, specific territories targeted and types of beneficiaries

Investment priority	1b — Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies
<p>The seven focal areas in Upper Norrland represent the basis for the activities proposed:</p> <ul style="list-style-type: none">• Development of physical and virtual meeting venues and science parks for innovative work and to create intersections within and between different industries and sectors.• Developing open innovation systems in the region's focal areas, for example to promote cross-border and/or transnational cooperation and innovation processes in and between industries and organisations.• Operations that promote collaboration between universities, research institutes and enterprises and that contribute to new solutions in the region's focal areas. A strongly regional research infrastructure with enhanced national and international cooperation further strengthens the cooperation between the universities, research institutes, trade and industry, and authorities, in what is known as the knowledge triangle, as well as the opportunities of enterprises to increase their own R&D.• Capacity-raising measures that contribute to strengthening the ability of the target groups to be involved in Horizon 2020, COSME and other sector programmes, focused on innovation and research linked to the region's focal areas.• Activities that strengthen method development and dissemination of knowledge on gender and diversity issues in the innovation support system to increase the participation of young adults, women and people born abroad in the region's innovation processes and innovation support systems.• Activities that contribute to developing support and advice adapted to the different phases of the innovation process, among other things strengthening the role of market issues in innovation efforts.• Activities that contribute to greater utilisation of the results of research, ideas and knowledge in existing and new enterprises and the public sector.• Innovation-supporting activities that contribute to making it possible for more ideas to be developed into new products, services, processes/techniques or methods.	

Investment priority	1b — Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies
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There are good prospects of innovation efforts in Upper Norrland contributing to development featuring gender equality and diversity. These activities can contribute to a more even distribution of good living and working conditions between men and women and make broad participation possible with the aim of breaking down traditional pictures of what innovations are and where innovations take place. Work in developing research and innovation environments can contribute to increasing knowledge of conditions, needs and circumstances for different people and sectors. Among other things, measures should take account of the gender segregation that exists in the labour market and how it is linked to the industries and sectors included in the focal areas of Upper Norrland.

Active efforts to support a green shift are important for Upper Norrland. The activities can contribute to an environmentally driven shift and sustainable growth where the development of ideas, products and services contributes to the region’s natural resources being used sparingly and in a resource-efficient way and to new business opportunities, jobs and markets for environmental technology being developed.

Principal target groups for the activities are small and medium-sized enterprises, universities and research institutes, economic associations and non-profit organisations.

Principal beneficiaries are universities and research institutes, public-sector stakeholders, economic associations and non-profit organisations, and small and medium-sized enterprises.

2.A.6.2 Guiding principles for selection of operations

Investment priority	1b — Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies
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Investment priority	1b — Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies
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The following principles guide the programme:

Projects that are focused on the region’s focal areas for smart specialisation

Projects are to support development in the region’s focal areas or promote meetings in and between sectors, enterprises, organisations and skills areas at ‘intersections’. The region’s focal areas comprise innovations in healthcare, life sciences, the development of technology and services in industry, test activity, sustainable energy and environmental technology, experience sectors and cultural and creative sectors, as well as digital service sectors for a smart region.

Projects that collaborate or create synergies with other projects/programmes

The regional Structural Funds programme meets only parts of the region’s development needs. The underpinning principle is that operations in several funds and programmes complement and reinforce one another. Collaboration and synergies with the Rural Development Programme, the European Social Fund and the EU’s sector programmes are particularly crucial.

Projects that support the EU Strategy for the Baltic Sea Region

The increasing regional cooperation in the northern part of the EU and in neighbouring countries in the Arctic Barents Region and in the Baltic Sea Region provides opportunities to tackle the common challenges on a broad front.

Projects that illustrate and develop the horizontal criteria as instruments for growth

It is crucial that the horizontal criteria, gender equality, diversity and the environment are integrated into the projects based on the possibilities of the projects generating sustainable growth. The underlying principle is that the projects need to relate to values such as gender equality, diversity and the

Investment priority	1b — Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies
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environment and can contribute to attaining the specific objectives.

Projects that contribute to strategic impact and learning

It is important that projects are based on functional and stable project organisations, with good ownership, good endorsement among partners and with an explicit idea regarding how the results of the projects are to be converted into both own and regional development activity.

Projects that utilise experience and knowledge

It is crucial that the regional Structural Funds programme for investments in growth and employment build on experience gained from the previous programming period and that the region take new strides forwards. There is therefore demand for new and enhanced working methods or forms of collaboration.

Involvement of trade and industry

Small and medium-sized enterprises are a principal target group for most of the activities in this priority axis. An important prerequisite for attaining the specific objectives is that the projects are based on what the target group demands. It is therefore important that trade and industry are involved in both planning and implementation of the projects.

Projects close to commercialisation and utilisation

It is crucial that project operations that have been granted funding prove beneficial in the region. There is therefore demand for projects that are close to commercialisation and utilisation of results and where the end-user and knowledge/technology development are clearly included.

2.A.6.3 Planned use of financial instruments (where appropriate)

Investment priority	1b — Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies
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2.A.6.4 Planned use of major projects (where appropriate)

Investment priority	1b — Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies
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2.A.6.5 Output indicators by investment priority and, where appropriate by category of region

Table 5: Common and programme-specific result indicators (by investment priority, broken down by category of region for the ESF, and where relevant, for the ERDF)

Investment priority		1b — Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies							
ID	Indicator	Measurement unit	Fund	Category of region (where relevant)	Target value (2023)			Source of data	Frequency of reporting
					M	W	T		
CO01	Productive investment: Number of	Enterprises	ERDF	More developed			760.00	Managing authority's database	Continuous

Investment priority		1b — Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies							
ID	Indicator	Measurement unit	Fund	Category of region (where relevant)	Target value (2023)			Source of data	Frequency of reporting
					M	W	T		
	enterprises receiving support								
CO04	Productive investment: Number of enterprises receiving non-financial support	Enterprises	ERDF	More developed			750.00	Managing authority's database	Continuous
CO26	Research, Innovation: Number of enterprises cooperating with research institutions	Enterprises	ERDF	More developed			200.00	Managing authority's database	Continuous
CO27	Research, Innovation: Private investment matching public support in innovation or R&D projects	EUR	ERDF	More developed			3 000 000.00	Managing authority's database	Continuous
CO28	Research, Innovation: Number of enterprises supported to introduce new to the market	Enterprises	ERDF	More developed			35.00	Managing authority's database	Continuous

Investment priority		1b — Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies							
ID	Indicator	Measurement unit	Fund	Category of region (where relevant)	Target value (2023)			Source of data	Frequency of reporting
					M	W	T		
	products								

2.A.7 Social innovation, transnational cooperation and contribution to thematic objectives 1-7

Priority axis	1 — Strengthening research, technological development and innovation

2.A.8 Performance framework

Table 6: Performance framework of the priority axis (by fund and, for the ERDF and ESF, category of region)

Priority axis		1 — Strengthening research, technological development and innovation											
ID	Indicator type	Indicator or key implementation step	Measurement unit, where appropriate	Fund	Category of region	Milestone for 2018			Final target (2023)			Source of data	Explanation of relevance of indicator, where appropriate
						M	W	T	M	W	T		
CO26	O	Research, Innovation: Number of enterprises cooperating with research institutions	Enterprises	ERDF	More developed			50			200.00	Managing authority	
100	F	Financial indicator	EUR	ERDF	More			36 670 078			122 233 59	Managing	

Priority axis			1 — Strengthening research, technological development and innovation									
ID	Indicator type	Indicator or key implementation	Measurement unit, where appropriate	Fund	Category of region developed	Milestone for 2018			Final target (2023)		Source of data authority	Explanation of relevance
										2.00		

Additional qualitative information on the establishment of the performance framework

The managing authority has deemed it most appropriate to make use of outcome indicators for the performance framework and supplement these with one financial indicator per priority axis. This assessment is justified by the fact that output indicators can be fully attributed to implementation of the programme and that they are possible to measure continuously during implementation of the programme. Result indicators will not be used.

The methods and criteria that have been used to select relevant output indicators follow the guidelines issued by the Commission. The calculations of a reasonable value for the interim target for 2018 for each selected output indicator have been based on experience from the previous programming period and an assessment of how quickly projects in the priority axis concerned can be expected to generate outcomes for each output indicator. The estimated total number of projects in each priority axis has also been taken into account. The managing authority is of the opinion that the selected output indicators fulfil the requirement to cover more than 50 % of the financial allocation for the priority axis.

With regard to the financial indicator ‘Resources paid’ per priority axis, the calculations have been based on the requirement for all payments included to be based on eligible costs paid to the beneficiary and for these to be certified by the certifying authority. The managing authority has taken account of experience from the programming period 2007-2013 and has focused, in particular, on how the payments were carried out during the corresponding part of the programming period, i.e. 2007-2011. The fact that the programme for the programming period 2014-2020 is more focused and concentrated and that the managing authority has a smooth organisation in place has also been taken into account. The level of payment has differed between the priority axes of the programmes over the programming period 2007-2013, and the managing authority has taken account of these variations in establishing the performance framework.

The interim target for 2018 for the financial indicator for priority axis 2 has been set at 20 %, which is somewhat lower than for other priority axes. Projects in this priority axis are deemed to be time-consuming and to be highly complex in the start-up phase due to extensive planning and procurements, which shifts the timing of major expenses.

The managing authority is considering the options for permitting longer project periods than have been possible during the programming period 2007-2013 in certain particular cases. Longer project periods mean that the outcome for the outcome indicators will come relatively late in the programming period, with the result that the interim targets for 2018 in the performance framework are lower in these cases than for other priority axes.

In priority axis 2, in which broadband investments are planned, the results of implemented operations cannot be expected to be reported until a long time into the programming period. The interim target for the selected output indicator ‘Added number of enterprises that have gained access to broadband at speeds of at least 100 Mbps’ has been estimated to be 0. In order, nevertheless, to follow up the effects of approved operations in this priority axis, the programme will use the key implementation step ‘Planned number of enterprises with access to broadband at speeds of at least 100 Mbps based on projects financed in the priority axis’. This key implementation step will be monitored continuously during programme implementation and reported back in the annual implementation report submitted to the Commission.

In most cases, only one output indicator per priority axis has been selected for the performance framework. The reason for this is that the programme is so focused and concentrated that each selected output indicator is deemed to cover a large proportion of the expected projects. Having few indicators in the performance framework also makes it easier to follow up and have an overview of implementation and improves the prospects for corrective actions if the trends suggest that the performance framework will not be fulfilled.

2.A.9 Categories of intervention

Categories of intervention corresponding to the content of the priority axis based on a nomenclature adopted by the Commission, and indicative breakdown of Union support.

Tables 7-11: Categories of intervention

Table 7: Dimension 1 — Intervention field

Priority axis	1 — Strengthening research, technological development and innovation		
Fund	Category of region	Code	€ amount

Priority axis		1 — Strengthening research, technological development and innovation	
Fund	Category of region	Code	€ amount
ERDF	More developed	056. Investment in infrastructure, capacities and equipment in SMEs directly linked to research and innovation activities	4 583 759.00
ERDF	More developed	058. Research and innovation infrastructure (public)	7 639 600.00
ERDF	More developed	059. Research and innovation infrastructure (private, including science parks)	6 111 680.00
ERDF	More developed	060. Research and innovation activities in public research centres and centres of competence including networking	6 111 680.00
ERDF	More developed	062. Technology transfer and university-enterprise cooperation primarily benefiting SMEs	15 279 199.00
ERDF	More developed	063. Cluster support and business networks primarily benefiting SMEs	9 167 519.00
ERDF	More developed	064. Research and innovation processes in SMEs (including voucher schemes, process, design, service and social innovation)	12 223 359.00

Table 8: Dimension 2 — Form of finance

Priority axis		1 — Strengthening research, technological development and innovation	
Fund	Category of region	Code	€ amount
ERDF		01. Non-repayable grant	61 116 796.00

Table 9: Dimension 3 — Territory type

Priority axis		1 — Strengthening research, technological development and innovation	
Fund	Category of region	Code	€ amount
ERDF	More developed	01. Large Urban areas (densely populated >50 000 population)	13 445 695.00
ERDF	More developed	02. Small Urban areas (intermediate density >5 000 population)	24 446 718.00

Priority axis		1 — Strengthening research, technological development and innovation	
Fund	Category of region	Code	€ amount
ERDF	More developed	03. Rural areas (thinly populated)	23 224 383.00

Table 10: Dimension 4 — Territorial delivery mechanisms

Priority axis		1 — Strengthening research, technological development and innovation	
Fund	Category of region	Code	€ amount
ERDF	More developed	07. Not applicable	61 116 796.00

Table 11: Dimension 6 — ESF secondary theme (ESF and YEI only)

Priority axis		1 — Strengthening research, technological development and innovation	
Fund	Category of region	Code	€ amount

2.A.10 Summary of the planned use of technical assistance including, where necessary, actions to reinforce the administrative capacity of authorities involved in the management and control of the programmes and beneficiaries (where appropriate) (by priority axis)

Priority axis:		1 — Strengthening research, technological development and innovation	

2.A.1 Priority axis

ID of the priority axis	2
Title of the priority axis	Enhancing access to, and use and quality of, information and communication technologies;

- The entire priority axis will be implemented solely through financial instruments
- The entire priority axis will be implemented solely through financial instruments set up at Union level
- The entire priority axis will be implemented through community-led local development
- For the ESF: The entire priority axis is dedicated to social innovation or to transnational cooperation, or both

2.A.2 Justification for the establishment of a priority axis covering more than one category of region, thematic objective or fund (where applicable)

2.A.3 Fund, category of region and calculation basis for Union support

Fund	Category of region	Calculation basis (total eligible expenditure or eligible public expenditure)	Category of region for outermost regions and northern sparsely populated regions (where applicable)
ERDF	More developed	Fel! Hittar inte referenskölla.	
ERDF	Outermost or northern sparsely populated	Fel! Hittar inte referenskölla.	More developed

2.A.4 Investment priority

ID of the investment priority	2a
Title of the investment priority	Extending broadband deployment and the roll-out of high-speed networks and supporting the adoption of emerging technologies and networks for the digital economy

2.A.5 Specific objectives corresponding to the investment priority and expected results

ID of the specific objective	1
Title of the specific objective	More enterprises gain access to broadband of high quality and capacity
Results that the Member States seek to achieve with Union support	<p>Information and communication technology that works well is important to future growth, competitiveness and employment in Upper Norrland. In Upper Norrland, which is a sparsely populated area, access to broadband infrastructure is of very great significance to the possibility of working, of operating and developing enterprises and of providing a good community service. Digital technology enables distances, both physical and economic and social, to be shortened, both within the region and to other regions of the EU.</p> <p>The objective is for greater access to broadband of higher quality and capacity to create better conditions for growth and the development of the region's existing industries, markets and enterprises, but also to create opportunities for entirely new businesses and sectors to be started up. Access to broadband results gives more innovators, entrepreneurs and enterprises in the region more stable and long-term conditions to develop effective, appealing and sustainable methods, business models, services and products for a global market.</p> <p>Enterprises throughout the region depend on the conditions that reliable broadband of high capacity and good quality can provide, so that effective, appealing and sustainable working methods and services can be developed.</p> <p>There are areas and places in Upper Norrland that completely lack access to high-quality, fast broadband. This is largely due to the necessary market conditions for the extended roll-out of IT infrastructure not existing. Continued extension of high-speed broadband deployment is a matter of increasing access to broadband but also working to maintain, develop and raise the capacity and quality of already established infrastructure.</p> <p>This requires large investments in high-capacity IT infrastructure. The enterprises in the region are linked together in interurban networks through the investments under the ERDF. End-users are connected to the backbone network via local area networks through local operations, under the Rural Development Programme or private operators.</p> <p>Access to broadband infrastructure is also, in many cases, an essential requirement for the implementation of operations in the other thematic areas of the programme. The large productivity and quality gains cannot be accomplished until the whole region is brought within the information society.</p>

Table 3: Programme-specific result indicators, by specific objective (for the ERDF and the Cohesion Fund)

Specific objective		1 - Fler företag får tillgång till bredband av hög kvalitet och kapacitet						
ID	Indicator	Measurement unit	Category of region (where relevant)	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
202	Andel företag som fått möjlig tillgång till bredband (minst 100 Mbit/s)	Procent	More developed	54.09	2012	62.20	Post- och Telestyrelsen	Vartannat år

2.A.6 Action to be supported under the investment priority (by investment priority)

2.A.6.1 Description of the type and examples of actions to be supported and their expected contribution to the specific objectives including, where appropriate, the identification of main target groups, specific territories targeted and types of beneficiaries

Investment priority	2a — Extending broadband deployment and the roll-out of high-speed networks and supporting the adoption of emerging technologies and networks for the digital economy
<ul style="list-style-type: none">• Operations that increase access to high-capacity IT infrastructure.• Operations that raise the capacity and quality of the existing IT infrastructure in the region. <p>Increased access to high-capacity IT infrastructure in Upper Norrland has good prospects of contributing to development featuring gender equality and diversity. The activities can lead to a more even distribution of good living and working conditions between men and women and make broad digital participation possible for marginalised groups. This work can contribute to improving knowledge of conditions, needs and circumstances for different people and sectors. Among other things, measures should take account of the gender segregation that exists in the labour market and how it is linked to the industries and sectors included in the focal areas of Upper Norrland.</p> <p>Active efforts to support a green shift are important for Upper Norrland. The activities can contribute to an environmentally driven shift and sustainable growth where the development of ideas, products and services contributes to the region's natural resources being used sparingly and in a resource-efficient way and to new business opportunities, jobs and markets for environmental technology being developed. ICT solutions can contribute to reducing environmental impact in all sectors of society, as various forms of e-services, for example, can reduce the need for travel and transport.</p> <p>The principal target groups for the activities are small and medium-sized enterprises.</p> <p>Principal beneficiaries are public-sector stakeholders, small and medium-sized enterprises, economic associations and non-profit organisations.</p>	

2.A.6.2 Guiding principles for selection of operations

Investment priority	2a — Extending broadband deployment and the roll-out of high-speed networks and supporting the adoption of emerging technologies and networks for the digital economy
<p>A fundamental condition to be met for support for investments in broadband infrastructure is that the projects contribute to structural changes at regional level. Additional principles guiding selection are:</p>	
<p>Projects where the necessary market conditions for the roll-out of broadband infrastructure do not exist</p>	
<p>There is a requirement that project operations that have been granted funding are concentrated in areas where the market, for various reasons, does not function.</p>	
<p>Projects that collaborate or create synergies with other projects/programmes</p>	
<p>The regional Structural Funds programmes meet only parts of the region’s development needs. The underpinning principle is that operations in several funds and programmes complement and reinforce one another. Collaboration and synergies with the European Agricultural Fund for Regional Development and the European Social Fund are particularly crucial.</p>	
<p>The regional Structural Funds programme supports operations that develop interurban networks. It is essential that the projects ensure that the investments are followed by continued operations to connect end-users.</p>	
<p>Projects that contribute to the development of trade and industry and the competitiveness of enterprises</p>	
<p>Small and medium-sized enterprises are the target group for the operations. An important condition to be met for the specific target groups to be reached and growth consequently to be created is that the projects are based on a target group analysis of the needs and challenges of the enterprises and the challenges they face.</p>	
<p>The projects also have to be in line with regional and local broadband and development strategies and be able to present results in relation to the indicators of the priority axis.</p>	
<p>Projects that support the EU Strategy for the Baltic Sea Region</p>	
<p>The increasing regional cooperation in the northern part of the EU and in neighbouring countries in the Arctic Barents Region and in the Baltic Sea Region</p>	

Investment priority	2a — Extending broadband deployment and the roll-out of high-speed networks and supporting the adoption of emerging technologies and networks for the digital economy
<p>provides opportunities to tackle the common challenges on a broad front.</p> <p>Projects that illustrate and develop the horizontal criteria as instruments for growth</p> <p>It is crucial that the horizontal criteria, gender equality, diversity and the environment are integrated into the projects based on the possibilities of the projects generating sustainable growth. The underlying principle is that the projects need to relate to values such as gender equality, diversity and the environment and can contribute to attaining the specific objectives.</p> <p>Projects that contribute to strategic impact and learning</p> <p>It is important that projects are based on functional and stable project organisations, with good ownership, good endorsement among partners and with an explicit idea regarding how the results of the projects are to be converted into both own and regional development activity.</p>	

2.A.6.3 Planned use of financial instruments (where appropriate)

Investment priority	2a — Extending broadband deployment and the roll-out of high-speed networks and supporting the adoption of emerging technologies and networks for the digital economy

2.A.6.4 Planned use of major projects (where appropriate)

Investment priority	2a — Extending broadband deployment and the roll-out of high-speed networks and supporting the adoption of emerging technologies and networks for the digital economy
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Investment priority	2a — Extending broadband deployment and the roll-out of high-speed networks and supporting the adoption of emerging technologies and networks for the digital economy
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2.A.6.5 Output indicators by investment priority and, where appropriate by category of region

Table 5: Common and programme-specific result indicators (by investment priority, broken down by category of region for the ESF, and where relevant, for the ERDF)

Investment priority		2a — Extending broadband deployment and the roll-out of high-speed networks and supporting the adoption of emerging technologies and networks for the digital economy							
ID	Indicator	Measurement unit	Fund	Category of region (where relevant)	Target value (2023)			Source of data	Frequency of reporting
					M	W	T		
49	Number of enterprises added that have access to broadband at speeds of at least 100 Mbps	Number	ERDF	More developed			350.00	Managing authority's computer systems	Continuous

2.A.4 Investment priority

ID of the investment priority	2c
Title of the investment priority	Strengthening ICT applications for e-government, e-learning, e-inclusion, e-culture and e-health

2.A.5 Specific objectives corresponding to the investment priority and expected results

ID of the specific objective	1
Title of the specific objective	More digital services are to be developed to create greater access to private and public services

<p>Results that the Member States seek to achieve with Union support</p>	<p>The supply of, and access to, needs-oriented digital services that simplify and improve the efficiency of everyday life for inhabitants and enterprises in the region are to increase. Irrespective of place and time, it is to be possible to avail of both public and private service. New digital services therefore need to be established, but there is also a need to develop existing services.</p> <p>Trade and industry and the public sector in the region face major challenges linked to demographic trends. To cope with this, the efficiency of their operations must be improved, while raising quality and increasing the range of services offered. Digital technology can contribute to this to a great extent. There is a need for a purposeful commitment to both organisational and technological development to enable the public sector to offer an increased number of e-services, as well as improving the efficiency of its operations. To succeed, there is a need firstly for understanding of the opportunities presented by digitisation and ways of implementing digitisation in public activity to be enhanced, and secondly for expanded collaboration between central government, the municipalities, the county councils and trade and industry.</p> <p>Municipalities and county councils provide a large proportion of the services demanded by private individuals and enterprises. Collaboration with both government agencies and trade and industry is necessary to create scope for development. This can be brought about, for example, by municipalities and county councils providing public open information in a standardised manner that gives trade and industry an opportunity to develop their own services. These services can complement the range of services offered by the public sector and meet the separate needs that exist in the community.</p> <p>There is great potential in the development and implementation of new digital services in Upper Norrland, firstly to develop access to medical and social care, culture and education in sparsely populated areas, and secondly to foster enterprise, development of innovation and collaboration between private operators and the operators in the public sector.</p>
<p>ID of the specific objective</p>	<p>2</p>
<p>Title of the specific objective</p>	<p>Use of digital services is to be developed to increase digital participation</p>
<p>Results that the Member States seek to achieve with Union support</p>	<p>The majority of the population today live a large part of their lives on and with the aid of the digital services offered online. This involves everything from banking, travel booking and applications for building permits to what food is served in school canteens.</p> <p>There are, however, people, enterprises and organisations in the region who find it more difficult to assimilate the new</p>

	<p>technology and are at risk of lagging behind, which may lead to segregation in society. More digital services combined with operations that raise digital skills and participation can contribute to further simplifying everyday life for private individuals and enterprises in the region, at the same time as it leads to sustainable growth. Operations and measures from the ERDF can be advantageously combined with the ESF in this area.</p>
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Table 3: Programme-specific result indicators, by specific objective (for the ERDF and the Cohesion Fund)

Specific objective		1 - Fler digitala tjänster ska utvecklas för att skapa en ökad tillgång till privat och offentlig service						
ID	Indicator	Measurement unit	Category of region (where relevant)	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
203	Andel företag (10-249 anställda) som använder vissa IT-tjänster	Procent	More developed	73.70	2013	81.10	SCB	Vartannat år
Specific objective		2 - Användningen av digitala tjänster ska utvecklas för att öka den digitala delaktigheten.						
ID	Indicator	Measurement unit	Category of region (where relevant)	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
204	Andel privatpersoner (16-85 år) som använder vissa IT-tjänster.	Procent	More developed	68.00	2013	75.00	SCB	Vartannat år

2.A.6 Action to be supported under the investment priority (by investment priority)

2.A.6.1 Description of the type and examples of actions to be supported and their expected contribution to the specific objectives including, where appropriate, the identification of main target groups, specific territories targeted and types of beneficiaries

Investment priority	2c — Strengthening ICT applications for e-government, e-learning, e-inclusion, e-culture and e-health
<p>All activities that can be supported in the investment priority are to involve stakeholders from the public sector, but ideally are also to include collaboration between the private and public sectors.</p> <ul style="list-style-type: none">• Development and implementation of new innovative digital public services and applications that simplify and improve efficiency in everyday life for private individuals, enterprises, organisations and the public sector.• Activities that develop collaboration between municipalities, county councils, universities, research institutes, trade and industry, and civil society to bring about more digital services and applications.• Activities to analyse needs and the basic requirements for different types of new digital public services and applications.• Activities that develop and contribute to enabling test beds and pilot projects for digital public services and applications to be established.• Activities that create long-term sustainable structures to enable inhabitants and enterprises to be offered a combined and enhanced range of digital public services. Structures that support both organisational and technical prerequisites based on a local, regional or national perspective.• Activities that create good models can demonstrate how the opportunities presented by digitisation can develop supply and organisation and improve the efficiency of operations in municipalities and county councils.• Activities that contribute to increasing access to open public data and consequently create the conditions required to enable new digital public services to be developed by enterprises.• Activities that promote enhanced digital participation and mean that the use of and demand for digital services and products increase.• Activities that develop and increase the use of distance-bridging technology in the public sector to improve the efficiency of activities and make it easier and simpler for private individuals, enterprises and organisations. <p>There are good prospects of operations to increase the use of digital services in Upper Norrland contributing to development featuring gender equality and</p>	

Investment priority	2c — Strengthening ICT applications for e-government, e-learning, e-inclusion, e-culture and e-health
<p>diversity. The activities can contribute to a more even distribution of good living and working conditions between men and women and make broad digital participation possible. This work can contribute to improving knowledge of conditions, needs and circumstances for different people and sectors. Among other things, measures should take account of the gender segregation that exists in the labour market and how it is linked to the industries and sectors included in the focal areas of Upper Norrland.</p> <p>Active efforts to support a green shift are important for Upper Norrland. The activities can contribute to an environmentally driven shift and sustainable growth where the development of ideas, products and services contributes to the region’s natural resources being used sparingly and in a resource-efficient way and to new business opportunities, jobs and markets for environmental technology being developed. ICT solutions can contribute to reducing environmental impact in all sectors of society, as various forms of e-services, for example, can reduce the need for travel and transport.</p> <p>Principal target groups for the activities are public-sector operators, small and medium-sized enterprises, economic associations and non-profit organisations.</p> <p>Principal beneficiaries are public-sector stakeholders, small and medium-sized enterprises, economic associations and non-profit organisations.</p>	

2.A.6.2 Guiding principles for selection of operations

Investment priority	2c — Strengthening ICT applications for e-government, e-learning, e-inclusion, e-culture and e-health
<p>The following principles guide the programme:</p> <p>Projects that collaborate or create synergies with other projects/programmes</p> <p>The regional Structural Funds programme meets only parts of the region’s development needs. The underpinning principle is that operations in several funds and programmes complement and reinforce one another. Collaboration and synergies with the Regional Development Programme and the European Social Fund are particularly crucial.</p> <p>Projects that support the EU Strategy for the Baltic Sea Region</p>	

Investment priority	2c — Strengthening ICT applications for e-government, e-learning, e-inclusion, e-culture and e-health
<p>The increasing regional cooperation in the northern part of the EU and in neighbouring countries in the Arctic Barents Region and in the Baltic Sea Region provides opportunities to tackle the common challenges on a broad front.</p>	
<p>Projects that illustrate and develop the horizontal criteria as instruments for growth</p>	
<p>It is crucial that the horizontal criteria, gender equality, diversity and the environment are integrated into the projects based on the possibilities of the projects generating sustainable growth. The underlying principle is that the projects need to relate to values such as gender equality, diversity and the environment and can contribute to attaining the specific objectives.</p>	
<p>Projects that contribute to strategic impact and learning</p>	
<p>It is important that projects are based on functional and stable project organisations, with good ownership, good endorsement among partners and with an explicit idea regarding how the results of the projects are to be converted into both own and regional development activity.</p>	
<p>Projects that utilise experience and knowledge</p>	
<p>It is crucial that the regional Structural Funds programme for investments in growth and employment build on experience gained from the previous programming period and that the region take new strides forwards. There is therefore demand for new and enhanced working methods or forms of collaboration.</p>	
<p>Involvement of the target group</p>	
<p>An important prerequisite for attaining the specific objectives is that the projects are based on what the target group demands. It is therefore important that the target group is involved in both planning and implementation of the projects.</p>	

2.A.6.3 Planned use of financial instruments (where appropriate)

Investment priority	2c — Strengthening ICT applications for e-government, e-learning, e-inclusion, e-culture and e-health

2.A.6.4 Planned use of major projects (where appropriate)

Investment priority	2c — Strengthening ICT applications for e-government, e-learning, e-inclusion, e-culture and e-health

2.A.6.5 Output indicators by investment priority and, where appropriate by category of region

Table 5: Common and programme-specific result indicators (by investment priority, broken down by category of region for the ESF, and where relevant, for the ERDF)

Investment priority		2c — Strengthening ICT applications for e-government, e-learning, e-inclusion, e-culture and e-health							
ID	Indicator	Measurement unit	Fund	Category of region (where relevant)	Target value (2023)			Source of data	Frequency of reporting
					M	W	T		
41	Number of organisations receiving aid	Number	ERDF	More developed			30.00	Managing authority's computer systems	Continuous
52	Number of new digital services	Number	ERDF	More developed			25.00	Managing authority's database	Continuous

2.A.7 Social innovation, transnational cooperation and contribution to thematic objectives 1-7

Priority axis	2 — Enhancing access to, and use and quality of, information and communication technologies

2.A.8 Performance framework

Table 6: Performance framework of the priority axis (by fund and, for the ERDF and ESF, category of region)

Priority axis		2 — Enhancing access to, and use and quality of, information and communication technologies											
ID	Indicator type	Indicator or key implementation step	Measurement unit, where appropriate	Fund	Category of region	Milestone for 2018			Final target (2023)			Source of data	Explanation of relevance of indicator, where appropriate
						M	W	T	M	W	T		
100	F	Financial indicator	EUR	ERDF	More developed			4 070 462			20 352 312.00	Managing authority	
1	I	Planned number of enterprises with access to broadband at speeds of at least 100 Mbps based on projects financed in the priority axis	Number of enterprises	ERDF	More developed			12				Project	
49	O	Number of enterprises added that have access to broadband at speeds of at least 100 Mbps	Number	ERDF	More developed			0			350.00	Managing authority	

Additional qualitative information on the establishment of the performance framework

The managing authority has deemed it most appropriate to make use of outcome indicators for the performance framework and supplement these with one financial indicator per priority axis. This assessment is justified by the fact that output indicators can be fully attributed to implementation of the programme and that they are possible to measure continuously during implementation of the programme. Result indicators will not be used.

The methods and criteria that have been used to select relevant output indicators follow the guidelines issued by the Commission. The calculations of a reasonable value for the interim target for 2018 for each selected output indicator have been based on experience from the previous programming period and an assessment of how quickly projects in the priority axis concerned can be expected to generate outcomes for each output indicator. The estimated total number of projects in each priority axis has also been taken into account. The managing authority is of the opinion that the selected output indicators fulfil the requirement to cover more than 50 % of the financial allocation for the priority axis.

With regard to the financial indicator 'Resources paid' per priority axis, the calculations have been based on the requirement for all payments included to be based on eligible costs paid to the beneficiary and for these to be certified by the certifying authority. The managing authority has taken account of experience from the programming period 2007-2013 and has focused, in particular, on how the payments were carried out during the corresponding part of the programming period, i.e. 2007-2011. The fact that the programme for the programming period 2014-2020 is more focused and concentrated and that the managing authority has a smooth organisation in place has also been taken into account. The level of payment has differed between the priority axes of the programmes over the programming period 2007-2013, and the managing authority has taken account of these variations in establishing the performance framework.

The interim target for 2018 for the financial indicator for priority axis 2 has been set at 20 %, which is somewhat lower than for other priority axes. Projects in this priority axis are deemed to be time-consuming and to be highly complex in the start-up phase due to extensive planning and procurements, which shifts the timing of major expenses.

The managing authority is considering the options for permitting longer project periods than have been possible during the programming period 2007-2013 in certain particular cases. Longer project periods mean that the outcome for the outcome indicators will come relatively late in the programming period, with the result that the interim targets for 2018 in the performance framework are lower in these cases than for other priority axes.

In priority axis 2, in which broadband investments are planned, the results of implemented operations cannot be expected to be reported until a long time into the programming period. The interim target for the selected output indicator 'Added number of enterprises that have gained access to broadband at speeds of at least 100 Mbps' has been estimated to be 0. In order, nevertheless, to follow up the effects of approved operations in this priority axis, the

programme will use the key implementation step ‘Planned number of enterprises with access to broadband at speeds of at least 100 Mbps based on projects financed in the priority axis’. This key implementation step will be monitored continuously during programme implementation and reported back in the annual implementation report submitted to the Commission.

In most cases, only one output indicator per priority axis has been selected for the performance framework. The reason for this is that the programme is so focused and concentrated that each selected output indicator is deemed to cover a large proportion of the expected projects. Having few indicators in the performance framework also makes it easier to follow up and have an overview of implementation and improves the prospects for corrective actions if the trends suggest that the performance framework will not be fulfilled.

2.A.9 Categories of intervention

Categories of intervention corresponding to the content of the priority axis based on a nomenclature adopted by the Commission, and indicative breakdown of Union support.

Tables 7-11: Categories of intervention

Table 7: Dimension 1 — Intervention field

Priority axis		2 — Enhancing access to, and use and quality of, information and communication technologies	
Fund	Category of region	Code	€ amount
ERDF	More developed	047. ICT: Very high-speed broadband network (access/local loop; >= 100 Mbps)	6 614 501.00
ERDF	More developed	078. e-Government services and applications (including e-Procurement, ICT measures supporting the reform of public administration, cyber-security, trust and privacy measures, e-Justice and e-Democracy)	1 317 813.00
ERDF	More developed	080. e-Inclusion, e-Accessibility, e-Learning and e-Education services and applications, digital literacy	1 175 346.00
ERDF	More developed	082. ICT Services and applications for SMEs (including e-Commerce, e-Business, networked business processes), living labs, web entrepreneurs, ICT start-ups, etc.)	1 068 496.00

Table 8: Dimension 2 – Form of finance

Priority axis		2 – Enhancing access to, and use and quality of, information and communication technologies	
Fund	Category of region	Code	€ amount
ERDF		01. Non-repayable grant	10 176 156.00

Table 9: Dimension 3 — Territory type

Priority axis		2 — Enhancing access to, and use and quality of, information and communication technologies	
Fund	Category of region	Code	€ amount
ERDF	More developed	01. Large Urban areas (densely populated >50 000 population)	2 238 754.00
ERDF	More developed	02. Small Urban areas (intermediate density >5 000 population)	4 070 462.00
ERDF	More developed	03. Rural areas (thinly populated)	3 866 940.00

Table 10: Dimension 4 — Territorial delivery mechanisms

Priority axis		2 — Enhancing access to, and use and quality of, information and communication technologies	
Fund	Category of region	Code	€ amount
ERDF	More developed	07. Not applicable	10 176 156.00

Table 11: Dimension 6 — ESF secondary theme (ESF and YEI only)

Priority axis		2 — Enhancing access to, and use and quality of, information and communication technologies	
Fund	Category of region	Code	€ amount

2.A.10 Summary of the planned use of technical assistance including, where necessary, actions to reinforce the administrative capacity of authorities involved in the management and control of the programmes and beneficiaries (where appropriate) (by priority axis)

Priority axis:	2 — Enhancing access to, and use and quality of, information and communication technologies

2.A.1 Priority axis

ID of the priority axis	3
Title of the priority axis	Enhancing the competitiveness of SMEs

- The entire priority axis will be implemented solely through financial instruments
- The entire priority axis will be implemented solely through financial instruments set up at Union level
- The entire priority axis will be implemented through community-led local development
- For the ESF: The entire priority axis is dedicated to social innovation or to transnational cooperation, or both

2.A.2 Justification for the establishment of a priority axis covering more than one category of region, thematic objective or fund (where applicable)

2.A.3 Fund, category of region and calculation basis for Union support

Fund	Category of region	Calculation basis (total eligible expenditure or eligible public expenditure)	Category of region for outermost regions and northern sparsely populated regions (where applicable)
ERDF	More developed	Fel! Hittar inte referenskölla.	
ERDF	Outermost or northern sparsely populated	Fel! Hittar inte referenskölla.	More developed

2.A.4 Investment priority

ID of the investment priority	3a
Title of the investment priority	Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business

ID of the investment priority	3a
	incubators

2.A.5 Specific objectives corresponding to the investment priority and expected results

ID of the specific objective	1
Title of the specific objective	More new business start-ups in Upper Norrland
Results that the Member States seek to achieve with Union support	<p>Long-term competitive trade and industry is to be built in Upper Norrland with the focus on sustainable growth. The creativity, engagement and perspectives of people are to be utilised irrespective of ethnicity and gender in order to create capacity for renewal and enterprises that contribute to the prosperity of the region.</p> <p>It is essential that entrepreneurship is encouraged and developed to create more diversified trade and industry throughout Upper Norrland. It is particularly important that enterprise increases among young people, women and people born abroad. If this is to be achieved, there is a need for a business climate that promotes new enterprise and positive attitudes to entrepreneurship, as well as a support system that contributes to broadened entrepreneurship and enterprise throughout the region. Supporting the establishment and development of enterprises in the region's focal areas creates opportunities to shift to a less unbalanced and more long-term sustainable trade and industry that copes with economic fluctuations and international competition and makes better use of skills and job opportunities in the regions. As a result of working actively on generational shifts and new enterprise among young people, local small businesses can remain in the locality.</p> <p>There are good opportunities to start businesses throughout the region. The region's sparse population structure and long distances necessitate operations that, in various ways, for example through digital technology, facilitate the exchange of information and knowledge, access to new business contacts, the development of new ideas and active learning. Initiatives are often concerned with finding new small-scale solutions in a local context. The social economy is significant to the creation of an attractive region, particularly in rural areas.</p> <p>Desirable results during the programming period are for more prospective entrepreneurs to have an opportunity to obtain knowledge-oriented and individually adapted information and business advice. The activities are to contribute to more enterprises and an equivalent support system for women and men, as well as young adults and people born abroad, to start and</p>

	run businesses throughout the region.
ID of the specific objective	2
Title of the specific objective	More growing enterprises in Upper Norrland
Results that the Member States seek to achieve with Union support	<p>There are good opportunities for businesses to be further developed throughout the region. The region's sparse population structure and long distances necessitate operations that, in various ways, for example through digital technology, facilitate the exchange of information and knowledge, access to new business contacts, the development of new ideas and active learning.</p> <p>It is important to be able to combine different types of activities, such as advisory services, business development, network building and mentorship, etc., with promotional activities for example relating to credit financing. It is also important to enhance knowledge of regional venture capital funds, seed capital funds, microloans and soft loans, as well as other forms of growth capital.</p> <p>Desirable results during the programming period are for more established entrepreneurs to have an opportunity to obtain knowledge-oriented and individually adapted information and business advice ahead of the development of existing businesses. The activities are to contribute to an equivalent support system for women and men, as well as young adults and people born abroad, to create growing businesses throughout the region.</p>

Table 3: Programme-specific result indicators, by specific objective (for the ERDF and the Cohesion Fund)

Specific objective		1 - Fler nystartade företag i Övre Norrland						
ID	Indicator	Measurement unit	Category of region (where relevant)	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
0301	Antal SMF per 1000 invånare	Antal företag (0-249 anställda) per 1 000 invånare(16-64 år)	More developed	212.60	2013	215.00	Statistiska centralbyrån, Företagens ekonomi	Vartannat år
Specific objective		2 - Fler växande företag i Övre Norrland						
ID	Indicator	Measurement unit	Category of region (where relevant)	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
0302	Omsättning i små och medelstora företag	MSEK	More developed	74,806.00	2011	86,027.00	SCB	Vartannat år

2.A.6 Action to be supported under the investment priority (by investment priority)

2.A.6.1 Description of the type and examples of actions to be supported and their expected contribution to the specific objectives including, where appropriate, the identification of main target groups, specific territories targeted and types of beneficiaries

Investment priority	3a — Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators
<ul style="list-style-type: none"> • Activities that develop and renew support structures and methods with the aim of boosting enterprise among young adults, women and people born abroad, for example with regard to business advice prior to both starting and developing existing businesses. • Measures to develop and introduce new business models in the region, for example to mainstream gender equality, diversity and the environment into business activity. • Operations that strengthen entrepreneurship and enterprise based on Sami culture and foster business development in the Sami community. • Activities to introduce and develop incubators locally with equivalent quality where there is deemed to be a need and the necessary basis for such start-ups. The incubators can be supported both from local resources and remotely through virtual support. • Activities that contribute to strengthening and developing enterprise based on smarter and more sustainable, new and enhanced products from the focal areas, for example enterprise based on the region’s unique circumstances such as cold climate, sparse population, the region’s nature, natural resources and cultural heritage. • Measures to strengthen the competitiveness of enterprises by offering the region as a test arena for digital services for both private and public activity, among other things with the use of open public data. • Measures that contribute to facilitating change of ownership and generational shifts in enterprises. • Activities that contribute to innovative meeting venues, networks, clusters and cluster alliances being established for inspiration, skills provision, exchange of experience, business development and mentorship, and that also make cross-cutting work possible in which different skills and sectors are promoted. • Operations to support the innovativeness of small and medium-sized enterprises and their opportunity to commercialise development concepts, for example events and networking activities to match innovators with business operators/entrepreneurs. • Measures to develop strategic concepts and business advice aimed at responding to common challenges through social enterprise. • Activities to develop the ability to attract venture capital and risk capital, bridge gaps through regional venture capital funds or other operations with public resources, among other things through increased cooperation between operators in the region. 	

Investment priority	3a — Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators
<ul style="list-style-type: none"> • Operations to foster increased access to private capital by making possible alternative forms of funding and operations to improve security for enterprises. • Operations linked to regional-policy enterprise support, to encourage business operators throughout the region in new start-ups, expansion and innovation. <p>There are good prospects of work on promoting entrepreneurship and enterprise in Upper Norrland contributing to development featuring gender equality and diversity. The activities can contribute to a more even distribution of good living and working conditions between men and women and make broad participation possible. This work can contribute to improving knowledge of conditions, needs and circumstances for different people and sectors. Among other things, measures should take account of the gender segregation that exists in the labour market and how it is linked to the industries and sectors included in the focal areas of Upper Norrland.</p> <p>Active efforts to support a green shift are important for Upper Norrland. Small and medium-sized enterprises have an important role to play in this shift and to create new jobs in a greener economy. The activities can contribute to an environmentally driven shift and sustainable growth where the development of ideas, products and services contributes to the region’s natural resources being used sparingly and in a resource-efficient way and to new business opportunities, jobs and markets for environmental technology being developed.</p> <p>Principal target groups for the activities are public-sector operators, small and medium-sized enterprises, economic associations and non-profit organisations.</p> <p>Principal beneficiaries are public-sector stakeholders, small and medium-sized enterprises, economic associations and non-profit organisations.</p>	

2.A.6.2 Guiding principles for selection of operations

Investment priority	3a — Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators
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Investment priority	3a — Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators
<p>The following principles guide the programme:</p> <p>Projects that are focused on the region’s focal areas for smart specialisation</p> <p>Projects are to support development in the region’s focal areas or promote meetings in and between sectors, enterprises, organisations and skills areas at ‘intersections’. The region’s focal areas comprise innovations in healthcare, life sciences, the development of technology and services in industry, test activity, sustainable energy and environmental technology, experience sectors and cultural and creative sectors, as well as digital service sectors for a smart region.</p> <p>Projects that collaborate or create synergies with other projects/programmes</p> <p>The regional Structural Funds programme meets only parts of the region’s development needs. The underpinning principle is that operations in several funds and programmes complement and reinforce one another. Collaboration and synergies with the Rural Development Programme, the European Social Fund and the EU’s sector programmes are particularly crucial.</p> <p>Projects that support the EU Strategy for the Baltic Sea Region</p> <p>The increasing regional cooperation in the northern part of the EU and in neighbouring countries in the Arctic Barents Region and in the Baltic Sea Region provides opportunities to tackle the common challenges on a broad front.</p> <p>Projects that illustrate and develop the horizontal criteria as instruments for growth</p> <p>It is crucial that the horizontal criteria, gender equality, diversity and the environment are integrated into the projects based on the possibilities of the projects generating sustainable growth. The underlying principle is that the projects need to relate to values such as gender equality, diversity and the environment and be able to contribute to attaining the specific objects set under the investment priorities of the priority axis.</p> <p>Projects that contribute to strategic impact and learning</p>	

Investment priority	3a — Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators
<p>It is important that projects are based on functional and stable project organisations, with good ownership, good endorsement among partners and with an explicit idea regarding how the results of the projects are to be converted into both own and regional development activity.</p>	
<p>Projects that utilise experience and knowledge</p>	
<p>It is crucial that the regional Structural Funds programme for investments in growth and employment build on experience gained from the previous programming period and that the region take new strides forwards. There is therefore demand for new and enhanced working methods or forms of collaboration.</p>	
<p>Involvement of trade and industry</p>	
<p>Small and medium-sized enterprises are a principal target group for most of the activities in this priority axis. An important prerequisite for attaining the specific objectives is that the projects are based on what the target group demands. It is therefore important that trade and industry are involved in both planning and implementation of the projects.</p>	
<p>Projects close to commercialisation and utilisation</p>	
<p>It is crucial that project operations that have been granted funding prove beneficial in the region. There is therefore demand for projects that are close to commercialisation and utilisation of results and where the end-user and knowledge/technology development are clearly included.</p>	

2.A.6.3 Planned use of financial instruments (where appropriate)

Investment priority	3a — Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators
<p>A functioning supply of capital is crucial for business start-ups and for sustainable growth. The needs of enterprises for external capital are to be met</p>	

Investment priority	3a — Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators
<p>primarily in the private market, but there are also areas where there may be needs for market-supplementing funding, for instance in early stages of development and in the commercialisation of innovative business concepts.</p> <p>The implementation of financial instruments over the programming period 2014-2020 will be elucidated on the basis of the experience that already exists. The ‘fund projects’ that have been implemented under the regional Structural Funds over the period 2007-2013 and are aimed at increasing the regional supply of shareholder capital have met with strong demand. The investment has totalled SEK 2.4 billion, which is equivalent to around one fifth of the whole venture capital market in Sweden in 2011.</p> <p>There was initially uncertainty as to whether there would be private co-financiers willing to co-invest. Results from July 2013 show that each SEK of fund investment has attracted an average of SEK 1.9 in private funding. The financing instruments are thus producing a leveraging effect on the ERDF. The first phase of investment according to participatory researchers and implementers has been successful in attracting sufficiently good ideas to invest in and interested private co-investors to invest with. The initiative has been a driver particularly with regard to the establishment of a regional structure for venture capital. On the other hand, participatory researchers consider that the horizontal criteria can be integrated better into implementation.</p> <p>In the light of this, an opportunity is provided to work on implementation of financial instruments under thematic objective 3:</p> <ul style="list-style-type: none"> • The operations are to be focused on supporting the supply of capital to enterprises where the market is not working satisfactorily. • The results of the Swedish Agency for Economic and Regional Growth’s ex-ante assessment of financial instruments are to be taken into account in implementing financial instruments. • Instruments focused on shareholder capital are to be implemented under the existing structure and with experience from the ‘fund projects’ implemented during the programming period 2007-2013. Operations may also cover other financial instruments. • Account is to be taken of the long-term nature of operations of this type. • The horizontal criteria are to be integrated into the operations. • Knowledge and experience from participatory research and evaluation in this area are to be exploited. • Coordination of all operations for financial instruments is to be aimed for. 	

2.A.6.4 Planned use of major projects (where appropriate)

Investment priority	3a — Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators
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2.A.6.5 Output indicators by investment priority and, where appropriate by category of region

Table 5: Common and programme-specific result indicators (by investment priority, broken down by category of region for the ESF, and where relevant, for the ERDF)

Investment priority		3a — Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators							
ID	Indicator	Measurement unit	Fund	Category of region (where relevant)	Target value (2023)			Source of data	Frequency of reporting
					M	W	T		
CO01	Productive investment: Number of enterprises receiving support	Enterprises	ERDF	More developed			1 735.00	Managing authority's database	Continuous
CO02	Productive investment: Number of enterprises receiving grants	Enterprises	ERDF	More developed			200.00	Managing authority's database	Continuous
CO03	Productive investment: Number of enterprises receiving financial support	Enterprises	ERDF	More developed			35.00	Managing authority's database	Continuous

Investment priority		3a — Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators							
ID	Indicator	Measurement unit	Fund	Category of region (where relevant)	Target value (2023)			Source of data	Frequency of reporting
					M	W	T		
	other than grants								
CO04	Productive investment: Number of enterprises receiving non-financial support	Enterprises	ERDF	More developed			1 500.00	Managing authority's database	Continuous
CO05	Productive investment: Number of new enterprises supported	Enterprises	ERDF	More developed			1 000.00	Managing authority's computer systems	Continuous
CO06	Productive investment: Private investment matching public support to enterprises (grants)	EUR	ERDF	More developed			369 000.00	Managing authority's computer systems	Continuous
CO07	Productive investment: Private investment matching public support to enterprises (non-grants)	(EUR)	ERDF	More developed			19 680 000.00	Managing authority's database	Continuous
CO08	Productive investment: Employment increase in	Full-time equivalents	ERDF	More developed			1 250.00	Managing authority's database	Continuous

Investment priority		3a — Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators							
ID	Indicator	Measurement unit	Fund	Category of region (where relevant)	Target value (2023)			Source of data	Frequency of reporting
					M	W	T		
	supported enterprises								

2.A.4 Investment priority

ID of the investment priority	3d
Title of the investment priority	Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes

2.A.5 Specific objectives corresponding to the investment priority and expected results

ID of the specific objective	1
Title of the specific objective	More small and medium-sized enterprises are growing on international new markets
Results that the Member States seek to achieve with Union support	<p>There is a need to develop methods and procedures specially focused on supporting the ability of small and medium-sized enterprises to reach new international markets.</p> <p>More coordinated efforts by various operators and at various levels are required to benefit from each other's networks and skills and to be able to strengthen the development of local enterprises in international markets. The involvement of enterprises in international projects is to be fostered and result in increased market shares for the enterprises.</p> <p>By utilising digital technology, new meeting venues can be developed that connect the region's entrepreneurs, enterprises and localities together and facilitate business relations between the region and international companies. New virtual clusters and geographical nodes also provide an opportunity to develop business networks, advisory services and other support remotely.</p> <p>The region's trade and industry are greatly integrated with the outside world. International investments therefore become an important part of regional growth efforts, particularly in view of the increasing competition between enterprises, regions and</p>

countries. Opportunities for several international partners are provided in this way for small and medium-sized enterprises. The same applies to our universities and other educational institutions.

New cooperative ventures where foreign companies invest or create strategic alliances with other operators in the region create development and expanded opportunities for the region's enterprises to increase their exports.

Further measures are to strengthen cooperation with other activities aimed at business development in the region and with other investment promoters in northern Sweden. Finally, the dialogue between trade and industry, financiers and investment- and export-promoting organisations should be strengthened in order to benefit from the international networks of enterprises.

Table 3: Programme-specific result indicators, by specific objective (for the ERDF and the Cohesion Fund)

Specific objective		1 - Fler små och medelstora företag växer på internationella nya marknader						
ID	Indicator	Measurement unit	Category of region (where relevant)	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
306	Andel små och medelstora företag (0-249 anställda) som bedriver export	Procent	More developed	1.50	2013	1.61	SCB	Vartannat år

2.A.6 Action to be supported under the investment priority (by investment priority)

2.A.6.1 Description of the type and examples of actions to be supported and their expected contribution to the specific objectives including, where appropriate, the identification of main target groups, specific territories targeted and types of beneficiaries

Investment priority	3d — Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes
<ul style="list-style-type: none">• Activities that provide support and meet the conditions for small and medium-sized enterprises to develop their internal and external processes and business with the support of digital technology, and implement targeted skills development initiatives relating to digital services aimed at different industries, sectors and enterprises.• Activities that foster elements of market communication and improvement of the marketing skills of enterprises, among other things in connection with experience seminars and network meetings between enterprises.• Activities to foster and strengthen the willingness and ability of small and medium-sized enterprises to broaden their activity to new international markets, for example through improved advice, greater business intelligence, enhanced cooperation between regional, national and international clusters and increased participation in national and international networks and trade fairs.• Activities that contribute to capacity building, to strengthen the involvement of small and medium-sized enterprises in the EU programmes for innovation, research and sustainable growth. Supporting the participation of trade and industry in national and international development projects; seeking partners, developing information exchange and network building in close cooperation with universities and research institutions.• Operations to create platforms that utilise the international business opportunities and highlight the top-level skills of the region in an international market.• Operations to market the region's small and medium-sized enterprises both nationally and internationally with commercial investments. <p>There are good prospects of the work on promoting greater competitiveness for small and medium-sized enterprises in Upper Norrland contributing to development featuring gender equality and diversity. The activities can contribute to a more even distribution of good living and working conditions between men and women and make broad participation possible. This work can contribute to improving knowledge of conditions, needs and circumstances for different people and sectors. Among other things, measures should take account of the gender segregation that exists in the labour market and how it is linked to the industries and sectors included in the focal areas of Upper Norrland.</p>	

Investment priority	3d — Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes
<p>Active efforts to support a green shift are important for Upper Norrland. Small and medium-sized enterprises have an important role to play in this shift and to create new jobs in a greener economy. The activities can contribute to an environmentally driven shift and sustainable growth where the development of ideas, products and services contributes to the region's natural resources being used sparingly and in a resource-efficient way and to new business opportunities, jobs and markets for environmental technology being developed.</p> <p>Principal target groups for the activities are public-sector operators, small and medium-sized enterprises, economic associations and non-profit organisations.</p> <p>Principal beneficiaries are public-sector operators, small and medium-sized enterprises, economic associations and non-profit organisations.</p>	

2.A.6.2 Guiding principles for selection of operations

Investment priority	3d — Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes
<p>The following principles guide the programme:</p> <p>Projects that are focused on the region's focal areas for smart specialisation</p> <p>Projects are to support development in the region's focal areas or promote meetings in and between sectors, enterprises, organisations and skills areas at 'intersections'. The region's focal areas comprise innovations in healthcare, life sciences, the development of technology and services in industry, test activity, sustainable energy and environmental technology, experience sectors and cultural and creative sectors, as well as digital service sectors for a smart region.</p> <p>Projects that collaborate or create synergies with other projects/programmes</p> <p>The regional Structural Funds programme meets only parts of the region's development needs. The underpinning principle is that operations in several funds and programmes complement and reinforce one another. Collaboration and synergies with the Rural Development Programme, the European Social</p>	

Investment priority

3d — Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes

Fund and the EU's sector programmes are particularly crucial.

Projects that support the EU Strategy for the Baltic Sea Region

The increasing regional cooperation in the northern part of the EU and in neighbouring countries in the Arctic Barents Region and in the Baltic Sea Region provides opportunities to tackle the common challenges on a broad front.

Projects that illustrate and develop the horizontal criteria as instruments for growth

It is crucial that the horizontal criteria, gender equality, diversity and the environment are integrated into the projects based on the possibilities of the projects generating sustainable growth. The underlying principle is that the projects need to relate to values such as gender equality, diversity and the environment and can contribute to attaining the specific objectives.

Projects that contribute to strategic impact and learning

It is important that projects are based on functional and stable project organisations, with good ownership, good endorsement among partners and with an explicit idea regarding how the results of the projects are to be converted into both own and regional development activity.

Projects that utilise experience and knowledge

It is crucial that the regional Structural Funds programme for investments in growth and employment build on experience gained from the previous programming period and that the region take new strides forwards. There is therefore demand for new and enhanced working methods or forms of collaboration.

Involvement of trade and industry

Small and medium-sized enterprises are a principal target group for most of the activities in this priority axis. An important prerequisite for attaining the specific objectives is that the projects are based on what the target group demands. It is therefore important that trade and industry are involved in both planning and implementation of the projects.

Investment priority	3d — Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes
Projects close to commercialisation and utilisation	
It is crucial that project operations that have been granted funding prove beneficial in the region. There is therefore demand for projects that are close to commercialisation and utilisation of results and where the end-user and knowledge/technology development are clearly included.	

2.A.6.3 Planned use of financial instruments (where appropriate)

Investment priority	3d — Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes

2.A.6.4 Planned use of major projects (where appropriate)

Investment priority	3d — Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes

2.A.6.5 Output indicators by investment priority and, where appropriate by category of region

Table 5: Common and programme-specific result indicators (by investment priority, broken down by category of region for the ESF, and where relevant, for the ERDF)

Investment priority		3d — Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes					
ID	Indicator	Measurement unit	Fund	Category of region (where	Target value (2023)	Source of data	Frequency of

				relevant)	M	W	T		reporting
CO01	Productive investment: Number of enterprises receiving support	Enterprises	ERDF	More developed			250.00	Managing authority's database	Continuous
CO04	Productive investment: Number of enterprises receiving non-financial support	Enterprises	ERDF	More developed			250.00	Managing authority's database	Continuous
CO08	Productive investment: Employment increase in supported enterprises	Full-time equivalents	ERDF	More developed			750.00	Managing authority's database	Continuous

2.A.7 Social innovation, transnational cooperation and contribution to thematic objectives 1-7

Priority axis	3 — Enhancing the competitiveness of SMEs

2.A.8 Performance framework

Table 6: Performance framework of the priority axis (by fund and, for the ERDF and ESF, category of region)

Priority axis		3 — Enhancing the competitiveness of SMEs							
ID	Indicator	Indicator or key	Measurement unit,	Fund	Category	Milestone for 2018	Final target (2023)	Source of	Explanation

	type	implementation step	where appropriate		of region	M	W	T	M	W	T	data	of relevance of indicator, where appropriate
CO01	O	Productive investment: Number of enterprises receiving support	Enterprises	ERDF	More developed			496			1 985.00	Managing authority	
100	F	Financial indicator	EUR	ERDF	More developed			43 106 197			143 687 324.00	Managing authority	

Additional qualitative information on the establishment of the performance framework

The managing authority has deemed it most appropriate to make use of outcome indicators for the performance framework and supplement these with one financial indicator per priority axis. This assessment is justified by the fact that output indicators can be fully attributed to implementation of the programme and that they are possible to measure continuously during implementation of the programme. Result indicators will not be used.

The methods and criteria that have been used to select relevant output indicators follow the guidelines issued by the Commission. The calculations of a reasonable value for the interim target for 2018 for each selected output indicator have been based on experience from the previous programming period and an assessment of how quickly projects in the priority axis concerned can be expected to generate outcomes for each output indicator. The estimated total number of projects in each priority axis has also been taken into account. The managing authority is of the opinion that the selected output indicators fulfil the requirement to cover more than 50 % of the financial allocation for the priority axis.

With regard to the financial indicator 'Resources paid' per priority axis, the calculations have been based on the requirement for all payments included to be based on eligible costs paid to the beneficiary and for these to be certified by the certifying authority. The managing authority has taken account of experience from the programming period 2007-2013 and has focused, in particular, on how the payments were carried out during the corresponding part of the programming period, i.e. 2007-2011. The fact that the programme for the programming period 2014-2020 is more focused and concentrated and that the managing authority has a smooth organisation in place has also been taken into account. The level of payment has differed between the priority axes of the programmes over the programming period 2007-2013, and the managing authority has taken account of these variations in establishing the performance framework.

The interim target for 2018 for the financial indicator for priority axis 2 has been set at 20 %, which is somewhat lower than for other priority axes. Projects in this priority axis are deemed to be time-consuming and to be highly complex in the start-up phase due to extensive planning and procurements, which shifts the timing of major expenses.

The managing authority is considering the options for permitting longer project periods than have been possible during the programming period 2007-2013 in certain particular cases. Longer project periods mean that the outcome for the outcome indicators will come relatively late in the programming period, with the result that the interim targets for 2018 in the performance framework are lower in these cases than for other priority axes.

In priority axis 2, in which broadband investments are planned, the results of implemented operations cannot be expected to be reported until a long time into the programming period. The interim target for the selected output indicator ‘Added number of enterprises that have gained access to broadband at speeds of at least 100 Mbps’ has been estimated to be 0. In order, nevertheless, to follow up the effects of approved operations in this priority axis, the programme will use the key implementation step ‘Planned number of enterprises with access to broadband at speeds of at least 100 Mbps based on projects financed in the priority axis’. This key implementation step will be monitored continuously during programme implementation and reported back in the annual implementation report submitted to the Commission.

In most cases, only one output indicator per priority axis has been selected for the performance framework. The reason for this is that the programme is so focused and concentrated that each selected output indicator is deemed to cover a large proportion of the expected projects. Having few indicators in the performance framework also makes it easier to follow up and have an overview of implementation and improves the prospects for corrective actions if the trends suggest that the performance framework will not be fulfilled.

2.A.9 Categories of intervention

Categories of intervention corresponding to the content of the priority axis based on a nomenclature adopted by the Commission, and indicative breakdown of Union support.

Tables 7-11: Categories of intervention

Table 7: Dimension 1 — Intervention field

Priority axis		3 — Enhancing the competitiveness of SMEs	
Fund	Category of region	Code	€ amount
ERDF	More developed	056. Investment in infrastructure, capacities and equipment in SMEs directly linked to research and innovation activities	8 980 458.00
ERDF	More developed	063. Cluster support and business networks primarily benefiting SMEs	12 931 860.00
ERDF	More developed	066. Advanced support services for SMEs and groups of SMEs (including management, marketing and design services)	17 242 479.00
ERDF	More developed	067. SME business development, support to entrepreneurship and incubation (including support to spin offs and spin outs)	12 931 860.00
ERDF	More developed	071. Development and promotion of enterprises specialised in providing services contributing to the low carbon economy and to resilience to climate change (including support to such services)	4 310 619.00
ERDF	More developed	072. Business infrastructure for SMEs (including industrial parks and sites)	11 135 767.00
ERDF	More developed	082. ICT Services and applications for SMEs (including e-Commerce, e-Business, networked business processes), living labs, web entrepreneurs, ICT start-ups, etc.)	4 310 619.00

Table 8: Dimension 2 — Form of finance

Priority axis		3 — Enhancing the competitiveness of SMEs	
Fund	Category of region	Code	€ amount
ERDF		01. Non-repayable grant	59 630 239.00
ERDF		03. Support through financial instruments: venture and equity capital or equivalent	12 213 423.00

Table 9: Dimension 3 — Territory type

Priority axis		3 — Enhancing the competitiveness of SMEs	
Fund	Category of region	Code	€ amount
ERDF	More developed	01. Large Urban areas (densely populated >50 000 population)	15 087 169.00
ERDF	More developed	02. Small Urban areas (intermediate density >5 000 population)	29 455 901.00
ERDF	More developed	03. Rural areas (thinly populated)	27 300 592.00

Table 10: Dimension 4 — Territorial delivery mechanisms

Priority axis		3 — Enhancing the competitiveness of SMEs	
Fund	Category of region	Code	€ amount
ERDF	More developed	07. Not applicable	71 843 662.00

Table 11: Dimension 6 — ESF secondary theme (ESF and YEI only)

Priority axis		3 — Enhancing the competitiveness of SMEs	
Fund	Category of region	Code	€ amount

2.A.10 Summary of the planned use of technical assistance including, where necessary, actions to reinforce the administrative capacity of authorities involved in the management and control of the programmes and beneficiaries (where appropriate) (by priority axis)

Priority axis:	3 — Enhancing the competitiveness of SMEs

2.A.1 Priority axis

ID of the priority axis	4
Title of the priority axis	Supporting the shift towards a low-carbon economy in all sectors

- The entire priority axis will be implemented solely through financial instruments
- The entire priority axis will be implemented solely through financial instruments set up at Union level
- The entire priority axis will be implemented through community-led local development
- For the ESF: The entire priority axis is dedicated to social innovation or to transnational cooperation, or both

2.A.2 Justification for the establishment of a priority axis covering more than one category of region, thematic objective or fund (where applicable)

2.A.3 Fund, category of region and calculation basis for Union support

Fund	Category of region	Calculation basis (total eligible expenditure or eligible public expenditure)	Category of region for outermost regions and northern sparsely populated regions (where applicable)
ERDF	More developed	Fel! Hittar inte referenskölla.	

2.A.4 Investment priority

ID of the investment priority	4b
Title of the investment priority	Promoting energy efficiency and renewable energy use in enterprises

2.A.5 Specific objectives corresponding to the investment priority and expected results

ID of the specific objective	1
Title of the specific objective	Improving energy efficiency and use of renewable energy in the small and medium-sized enterprises of Upper Norrland
Results that the Member States seek to achieve with Union support	<p>Enterprises need to improve their use of energy and resources to retain and enhance their long-term competitiveness. An important measure is to make small and medium-sized enterprises aware of increased profit margins and competitive advantages that can be achieved through greater resource and energy efficiency. Enterprises need both greater knowledge and better tools to review, for example, choice of forms of energy for heating and production, ways of using new technology for heat recovery and energy storage and ways of improving their competitiveness through resource optimisation.</p> <p>Industrial emissions from automotive fuels are a large source of the region’s carbon dioxide emissions. Transport and non-road mobile machinery are therefore of particular importance to operations during the programming period. New system solutions for improved efficiency and a switch to renewable forms of energy need to be supported.</p> <p>Measures are needed in Upper Norrland that foster the development of a diversified market for renewable energy. There is a need in the region to find functioning distribution and system solutions, new business models and greater knowledge of conditions in the energy market. This is needed so that enterprises will be prepared to invest in new technology and new energy systems and to foster greater demand for low-carbon goods and services.</p> <p>In order to follow developments in low-carbon technologies and system solutions and also to demonstrate the region’s own know-how, there is a need for increased exchange with markets and communities both within and outside the boundaries of Sweden.</p>

Table 3: Programme-specific result indicators, by specific objective (for the ERDF and the Cohesion Fund)

Specific objective		1 - Öka energieffektiviteten och användningen av förnybar energi i Övre Norrlands små och medelstora företag						
ID	Indicator	Measurement unit	Category of region (where relevant)	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
0401	Slutlig energianvändning per förädlingsvärde för små- och medelstora industriföretag	MWh/MSEK	More developed	120.30	2011	100.00	SCB	Vartannat år
403	Andel användning av förnybar energi	Procent	More developed	29.94	2011	32.93	SCB	Vartannat år

2.A.6 Action to be supported under the investment priority (by investment priority)

2.A.6.1 Description of the type and examples of actions to be supported and their expected contribution to the specific objectives including, where appropriate, the identification of main target groups, specific territories targeted and types of beneficiaries

Investment priority	4b — Promoting energy efficiency and renewable energy use in enterprises
<ul style="list-style-type: none">• Measures that contribute to energy efficiency, for example through relative reduction and heat recovery.• Measures that increase the use of residuals and surplus energy, for example waste, as a substrate for methane gas extraction.• Measures that contribute to increasing the proportion of renewable energy, for example in enterprises, properties and the transport and industrial sectors.• Measures to strengthen the opportunities of small and medium-sized enterprises to take part in the development of low-carbon technologies in collaboration with innovators, environmental technology businesses, universities and authorities, based on a demand perspective.• Activities that foster technological and process development, as well as commercialisation for greater supply, conversion and use of renewable energy, for example vehicle fuels and refining.• Strategic networks and collaborative ventures for increased knowledge transfer, investigations and analyses, with the objective of fostering and enabling better use and distribution of renewable energy.• Operations that utilise international opportunities and lessons learnt in the area. <p>There are good prospects of efforts related to energy efficiency and use of renewable energy in Upper Norrland contributing to development featuring gender equality and diversity. The activities can lead to a more even distribution of good living and working conditions between men and women and make broad participation possible for everyone. These efforts can contribute to improving knowledge of conditions, needs and prospects of different groups in society, and measures should take particular account of the gender segregation that exists in the labour market and how it is linked to the industries and sectors included in the focal areas of Upper Norrland.</p> <p>Active efforts to support a green shift are important for Upper Norrland. Small and medium-sized enterprises have an important role to play in this shift and to create new jobs in a greener economy. The activities can contribute to an environmentally driven shift and sustainable growth where the</p>	

Investment priority	4b — Promoting energy efficiency and renewable energy use in enterprises
development of ideas, products and services contributes to the region’s natural resources being used sparingly and in a resource-efficient way and to new business opportunities, jobs and markets for environmental technology being developed.	
Principal target groups for the activities are small and medium-sized enterprises, economic associations and non-profit organisations.	
Principal beneficiaries are public-sector stakeholders, small and medium-sized enterprises, economic associations and non-profit organisations.	

2.A.6.2 Guiding principles for selection of operations

Investment priority	4b — Promoting energy efficiency and renewable energy use in enterprises
The following principles guide the programme:	
Projects that collaborate or create synergies with other projects/programmes	
The regional Structural Funds programme meets only parts of the region’s development needs. The underpinning principle is that operations in several funds and programmes complement and reinforce one another. Together, they contribute to broad and cohesive growth, and it is therefore crucial that the projects in themselves also search for a development operation in collaboration and synergy with other programmes. Collaboration and synergies with the Rural Development Programme, the European Social Fund and the National ERDF Programme are particularly crucial.	
Projects that support the EU Strategy for the Baltic Sea Region	
The increasing regional cooperation in the northern part of the EU and in neighbouring countries in the Arctic Barents Region and in the Baltic Sea Region provides opportunities to tackle the common challenges on a broad front.	
Projects that illustrate and develop the horizontal criteria as instruments for growth	
It is crucial that the horizontal criteria, gender equality, diversity and the environment are integrated into the projects based on the possibilities of the projects generating sustainable growth. The underlying principle is that the projects need to relate to values such as gender equality, diversity and the	

Investment priority	4b — Promoting energy efficiency and renewable energy use in enterprises
<p>environment and can contribute to attaining the specific objectives.</p> <p>Projects that contribute to strategic impact and learning</p> <p>It is important that projects are based on functional and stable project organisations, with good ownership, good endorsement among partners and with an explicit idea regarding how the results of the projects are to be converted into both own and regional development activity.</p> <p>Projects that utilise experience and knowledge</p> <p>It is crucial that the regional Structural Funds programme for investments in growth and employment build on experience gained from the previous programming period and that the region take new strides forwards. There is therefore demand for new and enhanced working methods or forms of collaboration.</p> <p>Involvement of trade and industry</p> <p>Small and medium-sized enterprises are a principal target group for most of the activities in this priority axis. An important prerequisite for attaining the specific objectives is that the projects are based on what the target group demands. It is therefore important that trade and industry are involved in both planning and implementation of the projects.</p> <p>Greatest benefit in reducing carbon dioxide emissions</p> <p>It is important to pay attention to and prioritise the operations deemed to provide the greatest possible benefit to reduce carbon dioxide emissions locally and globally, in both the long and short terms. It is particularly important to take a comprehensive view of energy and other resources so that a visible energy saving does not become an increase in energy consumption somewhere else.</p>	

2.A.6.3 Planned use of financial instruments (where appropriate)

Investment priority	4b — Promoting energy efficiency and renewable energy use in enterprises

2.A.6.4 Planned use of major projects (where appropriate)

Investment priority	4b — Promoting energy efficiency and renewable energy use in enterprises

2.A.6.5 Output indicators by investment priority and, where appropriate by category of region

Table 5: Common and programme-specific result indicators (by investment priority, broken down by category of region for the ESF, and where relevant, for the ERDF)

Investment priority		4b — Promoting energy efficiency and renewable energy use in enterprises							
ID	Indicator	Measurement unit	Fund	Category of region (where relevant)	Target value (2023)			Source of data	Frequency of reporting
					M	W	T		
CO01	Productive investment: Number of enterprises receiving support	Enterprises	ERDF	More developed			300.00	Managing authority's database	Continuous
CO04	Productive investment: Number of enterprises receiving non-financial support	Enterprises	ERDF	More developed			300.00	Managing authority's database	Continuous

Investment priority		4b — Promoting energy efficiency and renewable energy use in enterprises							
ID	Indicator	Measurement unit	Fund	Category of region (where relevant)	Target value (2023)			Source of data	Frequency of reporting
					M	W	T		
44	Reduced energy consumption in enterprises and organisations involved in projects	MWh	ERDF	More developed			200.00	Managing authority's database	Continuous

2.A.4 Investment priority

ID of the investment priority	4c
Title of the investment priority	Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector

2.A.5 Specific objectives corresponding to the investment priority and expected results

ID of the specific objective	1
Title of the specific objective	Improving energy efficiency and use of renewable energy in the public sector and the housing sector
Results that the Member States seek to achieve with Union support	<p>The public sector supplies a wide range of services, for example in water, wastewater, waste management, welfare services, schools, etc. There is a great need and an opportunity in these areas to improve the efficiency of energy and resource use and to increase the proportion of renewable energy. The public sector has an important role as a pioneer in energy efficiency and use of renewable energy, a role that can be further developed.</p> <p>The public sector also has a decisive role in planning and community building, which has an impact on the region's consumption of resources and energy. There is a need to develop community planning so that it both supports reduced energy consumption and makes an increased proportion of renewable energy possible. This involves, for example, physical planning to reduce the need for transport to work, school and business, making infrastructure for renewable energy possible in business</p>

and transport and making greater use of residual resources possible.

There is a great need to improve the knowledge of operators in the housing sector concerning ways in which the existing housing stock can be made more efficient in terms of technological and system solutions. This applies, for example, to the climate shells, ventilation, control and lighting of properties. There is also a need for more knowledge concerning what energy quality is optimal in different applications. Both private and public purchasers also need to develop knowledge and methods regarding how to demand low-carbon solutions.

There are great opportunities in new construction, extension and refurbishment to adapt energy supply systems, the design of housing and choice of materials, and in that way to move towards more and more low-carbon buildings. The operators in the housing market need to develop knowledge and models regarding how such a trend can be fostered in procurements and contracts [1].

[1] *Aid is not given to individual private operators to renovate and improve the energy efficiency of their housing stock.*

In order to follow developments in low-carbon solutions, for the public sector and the housing sector, the region needs to bring about an increased exchange with markets and communities both within and outside the boundaries of Sweden. Increased exchange is also important to have an opportunity to demonstrate and share the region's own know-how.

Table 3: Programme-specific result indicators, by specific objective (for the ERDF and the Cohesion Fund)

Specific objective		1 - Öka energieffektiviteten och användningen av förnybar energi inom offentlig sektor och bostadssektorn						
ID	Indicator	Measurement unit	Category of region (where relevant)	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
15	Energianvändning per m2 i bostäder (småhus och flerbostadshus)	kWh/m2	More developed	164.93	2012	132.00	SCB	Vartannat år
403	Andel användning av förnybar energi	Procent	More developed	29.94	2011	32.93	SCB	Vartannat år

2.A.6 Action to be supported under the investment priority (by investment priority)

2.A.6.1 Description of the type and examples of actions to be supported and their expected contribution to the specific objectives including, where appropriate, the identification of main target groups, specific territories targeted and types of beneficiaries

Investment priority	4c — Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector
<p>Cross-sectoral collaboration and utilisation of knowledge and experience from the housing and transport sectors, among others, on improved energy efficiency, renewable energy and carbon dioxide emissions should be aimed for in order to tackle common climate challenges more effectively, make synergies possible and achieve added value in relevant operations in order to contribute to the shift to a low-carbon economy.</p> <ul style="list-style-type: none">• Measures aimed at developing the activities in the public sector regarding resource and energy efficiency, utilisation of renewable forms of energy, use of energy-efficient system solutions and energy of suitable quality for the intended purpose.• Measures that develop the methods and tools of the public sector for low-carbon community planning.• Measures that enhance the ability of the public sector to foster a low-carbon economy through procurements and agreements, for example EPC.• Measures aimed at developing the housing sector regarding resource and energy efficiency, utilisation of renewable forms of energy and use of energy-efficient system solutions and energy of suitable quality for the intended purpose.• Measures that develop knowledge and models relating to how the housing sector can be encouraged to become more low-carbon through procurements and agreements.• Operations in the public sector and the housing sector that foster the transition to a circular economy.• Operations for testing, demonstration and innovative energy-efficient solutions and products in the public sector and the housing sector.• Activities that contribute to developing public infrastructure for increased supply, conversion and use of renewable energy.• Operations to promote a sustainable urban environment that contribute to reduced greenhouse gas emissions, improved air quality, and less noise and congestion and that promote increased walking and cycling. Examples of measures include advocacy aimed at inhabitants of the region.• Strategic networks and collaborative ventures in the public sector and the housing sector for increased knowledge transfer, investigations and analyses, with the objective of fostering and enabling better use and distribution of renewable energy.• Operations that make it possible for the public sector and the housing sector to exploit international opportunities and lessons learnt in the area.	

Investment priority	4c — Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector
<p>There are good prospects of efforts related to energy efficiency and use of renewable energy in Upper Norrland contributing to development featuring gender equality and diversity. The activities can lead to a more even distribution of good living and working conditions between men and women and make broad participation possible for everyone. These efforts can contribute to improving knowledge of conditions, needs and prospects of different groups in society, and measures should take particular account of the gender segregation that exists in the labour market and how it is linked to the industries and sectors included in the focal areas of Upper Norrland.</p> <p>Active efforts to support a green shift are important for Upper Norrland. The public sector and small and medium-sized enterprises have an important role to play in this shift and to create new jobs in a greener economy. The activities can contribute to an environmentally driven shift and sustainable growth where the development of ideas, products and services contributes to the region’s natural resources being used sparingly and in a resource-efficient way and to new business opportunities, jobs and markets for environmental technology being developed.</p> <p>Principal target groups for the activities are public-sector operators, small and medium-sized enterprises, economic associations and non-profit organisations.</p> <p>Principal beneficiaries are public-sector stakeholders, small and medium-sized enterprises, economic associations and non-profit organisations.</p>	

2.A.6.2 Guiding principles for selection of operations

Investment priority	4c — Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector
<p>The following principles guide the programme:</p> <p>Projects that collaborate or create synergies with other projects/programmes</p> <p>The regional Structural Funds programme meets only parts of the region’s development needs. The underpinning principle is that operations in several funds and programmes complement and reinforce one another. Together, they contribute to broad and cohesive growth, and it is therefore essential that the projects in themselves also search for a development operation in collaboration and synergy with other programmes. Collaboration and synergies with the</p>	

Investment priority	4c — Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector
<p>Rural Development Programme, the European Social Fund and the National ERDF Programme are particularly crucial.</p> <p>Projects that support the EU Strategy for the Baltic Sea Region</p> <p>The increasing regional cooperation in the northern part of the EU and in neighbouring countries in the Arctic Barents Region and in the Baltic Sea Region provides opportunities to tackle the common challenges on a broad front.</p> <p>Projects that illustrate and develop the horizontal criteria as instruments for growth</p> <p>It is crucial that the horizontal criteria, gender equality, diversity and the environment are integrated into the projects based on the possibilities of the projects generating sustainable growth. The underlying principle is that the projects need to relate to values such as gender equality, diversity and the environment and can contribute to attaining the specific objectives.</p> <p>Projects that contribute to strategic impact and learning</p> <p>It is important that projects are based on functional and stable project organisations, with good ownership, good endorsement among partners and with an explicit idea regarding how the results of the projects are to be converted into both own and regional development activity.</p> <p>Projects that utilise experience and knowledge</p> <p>It is crucial that the regional Structural Funds programme for investments in growth and employment build on experience gained from the previous programming period and that the region take new strides forwards. There is therefore demand for new and enhanced working methods or forms of collaboration.</p> <p>Involvement of the target group</p> <p>An important prerequisite for attaining the specific objectives is that the projects are based on what the target group demands. It is therefore important that the target group is involved in both planning and implementation of the projects.</p> <p>Greatest benefit in reducing carbon dioxide emissions</p>	

Investment priority	4c — Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector
It is important to pay attention to and prioritise the operations deemed to provide the greatest possible benefit to reduce carbon dioxide emissions locally and globally, in both the long and short terms. It is particularly important to take a comprehensive view of energy and other resources so that a visible energy saving does not become an increase in energy consumption somewhere else.	

2.A.6.3 Planned use of financial instruments (where appropriate)

Investment priority	4c — Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector

2.A.6.4 Planned use of major projects (where appropriate)

Investment priority	4c — Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector

2.A.6.5 Output indicators by investment priority and, where appropriate by category of region

Table 5: Common and programme-specific result indicators (by investment priority, broken down by category of region for the ESF, and where relevant, for the ERDF)

Investment priority		4c — Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector					
ID	Indicator	Measurement unit	Fund	Category of region (where	Target value (2023)	Source of data	Frequency of

				relevant)	M	W	T		reporting
44	Reduced energy consumption in enterprises and organisations involved in projects	MWh	ERDF	More developed			20.00	Managing authority's database	Continuous
47	Number of organisations receiving aid	Number	ERDF	More developed			50.00	Managing authority's database	Every other year

2.A.7 Social innovation, transnational cooperation and contribution to thematic objectives 1-7

Priority axis	4 — Supporting the shift towards a low-carbon economy in all sectors
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2.A.8 Performance framework

Table 6: Performance framework of the priority axis (by fund and, for the ERDF and ESF, category of region)

Priority axis		4 — Supporting the shift towards a low-carbon economy in all sectors											
ID	Indicator type	Indicator or key implementation step	Measurement unit, where appropriate	Fund	Category of region	Milestone for 2018			Final target (2023)			Source of data	Explanation of relevance of indicator, where appropriate
						M	W	T	M	W	T		
CO04	O	Productive investment: Number of enterprises receiving non-financial support	Enterprises	ERDF	More developed			75			300.00	Managing authority	

Priority axis		4 — Supporting the shift towards a low-carbon economy in all sectors											
ID	Indicator type	Indicator or key implementation	Measurement unit, where appropriate	Fund	Category of region	Milestone for 2018			Final target (2023)			Source of data	Explanation of relevance
100	F	Financial indicator	EUR	ERDF	More developed			6 960 491			23 201 636.00	Managing authority	

Additional qualitative information on the establishment of the performance framework

The managing authority has deemed it most appropriate to make use of outcome indicators for the performance framework and supplement these with one financial indicator per priority axis. This assessment is justified by the fact that output indicators can be fully attributed to implementation of the programme and that they are possible to measure continuously during implementation of the programme. Result indicators will not be used.

The methods and criteria that have been used to select relevant output indicators follow the guidelines issued by the Commission. The calculations of a reasonable value for the interim target for 2018 for each selected output indicator have been based on experience from the previous programming period and an assessment of how quickly projects in the priority axis concerned can be expected to generate outcomes for each output indicator. The estimated total number of projects in each priority axis has also been taken into account. The managing authority is of the opinion that the selected output indicators fulfil the requirement to cover more than 50 % of the financial allocation for the priority axis.

With regard to the financial indicator ‘Resources paid’ per priority axis, the calculations have been based on the requirement for all payments included to be based on eligible costs paid to the beneficiary and for these to be certified by the certifying authority. The managing authority has taken account of experience from the programming period 2007-2013 and has focused, in particular, on how the payments were carried out during the corresponding part of the programming period, i.e. 2007-2011. The fact that the programme for the programming period 2014-2020 is more focused and concentrated and that the managing authority has a smooth organisation in place has also been taken into account. The level of payment has differed between the priority axes of the programmes over the programming period 2007-2013, and the managing authority has taken account of these variations in establishing the performance framework.

The interim target for 2018 for the financial indicator for priority axis 2 has been set at 20 %, which is somewhat lower than for other priority axes. Projects in this priority axis are deemed to be time-consuming and to be highly complex in the start-up phase due to extensive planning and procurements, which shifts the timing of major expenses.

The managing authority is considering the options for permitting longer project periods than have been possible during the programming period 2007-2013 in certain particular cases. Longer project periods mean that the outcome for the outcome indicators will come relatively late in the programming period, with the result that the interim targets for 2018 in the performance framework are lower in these cases than for other priority axes.

In priority axis 2, in which broadband investments are planned, the results of implemented operations cannot be expected to be reported until a long time into the programming period. The interim target for the selected output indicator ‘Added number of enterprises that have gained access to broadband at speeds of at least 100 Mbps’ has been estimated to be 0. In order, nevertheless, to follow up the effects of approved operations in this priority axis, the programme will use the key implementation step ‘Planned number of enterprises with access to broadband at speeds of at least 100 Mbps based on projects financed in the priority axis’. This key implementation step will be monitored continuously during programme implementation and reported back in the annual implementation report submitted to the Commission.

In most cases, only one output indicator per priority axis has been selected for the performance framework. The reason for this is that the programme is so focused and concentrated that each selected output indicator is deemed to cover a large proportion of the expected projects. Having few indicators in the performance framework also makes it easier to follow up and have an overview of implementation and improves the prospects for corrective actions if the trends suggest that the performance framework will not be fulfilled.

2.A.9 Categories of intervention

Categories of intervention corresponding to the content of the priority axis based on a nomenclature adopted by the Commission, and indicative breakdown of Union support.

Tables 7-11: Categories of intervention

Table 7: Dimension 1 — Intervention field

Priority axis	4 — Supporting the shift towards a low-carbon economy in all sectors		
Fund	Category of region	Code	€ amount

Priority axis		4 — Supporting the shift towards a low-carbon economy in all sectors	
Fund	Category of region	Code	€ amount
ERDF	More developed	011. Renewable energy: biomass	1 450 102.00
ERDF	More developed	013. Energy efficiency renovation of public infrastructure, demonstration projects and supporting measures	2 320 164.00
ERDF	More developed	014. Energy efficiency renovation of existing housing stock, demonstration projects and supporting measures	2 320 164.00
ERDF	More developed	023. Environmental measures aimed at reducing and / or avoiding greenhouse gas emissions (including treatment and storage of methane gas and composting)	1 450 102.00
ERDF	More developed	068. Energy efficiency and demonstration projects in SMEs and supporting measures	1 972 139.00
ERDF	More developed	069. Support to environmentally-friendly production processes and resource efficiency in SMEs	2 088 147.00

Table 8: Dimension 2 — Form of finance

Priority axis		4 — Supporting the shift towards a low-carbon economy in all sectors	
Fund	Category of region	Code	€ amount
ERDF	More developed	01. Non-repayable grant	11 600 818.00

Table 9: Dimension 3 — Territory type

Priority axis		4 — Supporting the shift towards a low-carbon economy in all sectors	
Fund	Category of region	Code	€ amount
ERDF	More developed	01. Large Urban areas (densely populated >50 000 population)	2 552 180.00
ERDF	More developed	02. Small Urban areas (intermediate density >5 000 population)	4 640 327.00
ERDF	More developed	03. Rural areas (thinly populated)	4 408 311.00

Table 10: Dimension 4 — Territorial delivery mechanisms

Priority axis		4 — Supporting the shift towards a low-carbon economy in all sectors	
Fund	Category of region	Code	€ amount
ERDF	More developed	07. Not applicable	11 600 818.00

Table 11: Dimension 6 — ESF secondary theme (ESF and YEI only)

Priority axis		4 — Supporting the shift towards a low-carbon economy in all sectors	
Fund	Category of region	Code	€ amount

2.A.10 Summary of the planned use of technical assistance including, where necessary, actions to reinforce the administrative capacity of authorities involved in the management and control of the programmes and beneficiaries (where appropriate) (by priority axis)

Priority axis:	4 — Supporting the shift towards a low-carbon economy in all sectors

2.A.1 Priority axis

ID of the priority axis	5
Title of the priority axis	Promoting sustainable transport and removing bottlenecks in key network infrastructures

- The entire priority axis will be implemented solely through financial instruments
- The entire priority axis will be implemented solely through financial instruments set up at Union level
- The entire priority axis will be implemented through community-led local development
- For the ESF: The entire priority axis is dedicated to social innovation or to transnational cooperation, or both

2.A.2 Justification for the establishment of a priority axis covering more than one category of region, thematic objective or fund (where applicable)

2.A.3 Fund, category of region and calculation basis for Union support

Fund	Category of region	Calculation basis (total eligible expenditure or eligible public expenditure)	Category of region for outermost regions and northern sparsely populated regions (where applicable)
ERDF	Outermost or northern sparsely populated	Fel! Hittar inte referenskölla.	More developed

2.A.4 Investment priority

ID of the investment priority	7c
Title of the investment priority	Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility

2.A.5 Specific objectives corresponding to the investment priority and expected results

ID of the specific objective	1
Title of the specific objective	Increasing capacity in the existing transport infrastructure for more efficient and sustainable forms of transport to the benefit of trade and industry
Results that the Member States seek to achieve with Union support	<p>Trade and industry in Upper Norrland demand functioning goods transport with ever greater capacity and good communications in support of the skills provision of enterprises and the region's growing visitor industry. This can be brought about through operations that develop and optimise existing transport infrastructure by rail and sea and through improved commuting by public transport.</p> <p>To attain the objective of increased capacity, bottlenecks in the transport system need to be eliminated. The existing transport system needs to be developed where collaboration, methods and technology contribute to enhanced functionality and efficiency. Commuting can be facilitated through structural improvements for public transport such as travel centres and the development of service functions, strengthening the skills provision of trade and industry.</p> <p>According to application of the four-step principle [1], measures that address travel and transport needs and lead to more efficient utilisation of the existing structure are to be considered. This often involves relatively small, but very important, actions that have a positive effect on the transport system. The underpinning principle for initiatives relating to regional infrastructure is that they match the effect of national initiatives and TEN-T routes.</p> <p>The operations are expected to contribute to enterprises being able to choose the mode of transport. The transportation can be carried out with fewer interruptions, shorter lead times and with greater security of supply, which taken together improve the competitiveness of enterprises.</p> <p>The expected result is that trade and industry are able to meet their growing need for goods and passenger transport to a greater extent, while carbon dioxide emissions in the transport sector decrease. The enterprises are also expected to gain better opportunities for skills provision. This means sustainable growth and employment in Upper Norrland, Sweden and Europe.</p> <p>[1] The four-step principle: 1. Re-think — consider measures that can have an impact on the need for transport and travel and choice of mode of transport. 2. Optimise — implement measures that lead to more effective utilisation of the existing infrastructure. 3. Reconstruct — where necessary, limited reconstruction. 4. Build new — where necessary, new investments</p>

	and/or reconstruction measures.
ID of the specific objective	2
Title of the specific objective	New and enhanced multimodal transport connections for a more sustainable and efficient transition between modes of transport, to the benefit of trade and industry
Results that the Member States seek to achieve with Union support	<p>The geographical location and long distances in Upper Norrland mean that several different modes of transport are often needed for transport. Nodes or switching points such as ports and terminals are therefore important factors in the total journey becoming functionally, economically and environmentally advantageous. The increased demand in trade and industry for rail transport makes it important to be able to transfer a load from road to rail and ship and between ship and rail.</p> <p>The transition between different modes of transport can be strengthened and made more efficient through improvements, complementary investments and new investments according to the four-step principle.</p> <p>The operations are expected to contribute to enterprises in Upper Norrland having access to more efficient logistic solutions by rail and ship. As a result, transport times are shortened and deliveries become more reliable, reducing transport costs and improving the international competitiveness of transport.</p> <p>The expected result is that trade and industry will be able to use the railways and shipping to a greater extent to meet their growing need for goods transport and contribute to reducing the region's carbon dioxide emissions. This means sustainable growth and employment in Upper Norrland, Sweden and Europe.</p>

Table 3: Programme-specific result indicators, by specific objective (for the ERDF and the Cohesion Fund)

Specific objective		1 - Öka kapaciteten i befintlig transportinfrastruktur för mer effektiva och hållbara transporter till nytta för näringslivet						
ID	Indicator	Measurement unit	Category of region (where relevant)	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
0702	Näringslivets godstransporter	Varuflöde efter vikt i tusentals ton	More developed	29,119.00	2009	32,030.90	Trafikanalys, Sveriges officiella statistik. Varuflödesundersökningen tabell 9 - Avgående sändningar efter riksområden (NUTS 2) och mottagare	Vart femte år
708	Inrikes lastbilstransporter	miljoner tonkilometer	More developed	2,266.00	2013	2,039.00	Trafikanalys	Vartannat år
Specific objective		2 - Nya och utvecklade multimodala transportförbindelser för en mer hållbar och effektiv övergång mellan olika trafikslag, till nytta för näringslivet						
ID	Indicator	Measurement unit	Category of region (where relevant)	Baseline value	Baseline year	Target value (2023)	Source of data	Frequency of reporting
0404	Koldioxidutsläpp från transporter (exkl. internationell luftfart och sjöfart)	Ton/år	More developed	1,413,747.00	2011	1,272,372.00	Länsstyrelsen	Vartannat år

2.A.6 Action to be supported under the investment priority (by investment priority)

2.A.6.1 Description of the type and examples of actions to be supported and their expected contribution to the specific objectives including, where appropriate, the identification of main target groups, specific territories targeted and types of beneficiaries

Investment priority	7c — Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility
<ul style="list-style-type: none"> • Technical systems that ensure long-term sustainability, flow of traffic and accessibility in the transport system, for example application of new technology, digital services, applications, GIS. • Activities that develop public transport, in support of commuting to work and the skills provision of enterprises, through the development of functional and strategically located interchanges, for example travel centres and car parks for changing mode of transport. • Measures that develop and promote sustainable multimodal goods transport, covering both physical infrastructure and method development in transport (passenger and goods, covering both physical infrastructure and method development). • Measures to reduce bottlenecks in the transport system, for example meeting places in the railway system, stabling tracks for trains and partial speed-increasing measures such as rail raising at bends. • Measures that are targeted at new, innovative and efficiency-raising solutions for adaptation of shipping to the Sulphur Directive. • Measures that develop the region’s major goods ports through multimodal links between shipping and the railways with the aim of creating sustainable transport for trade and industry. • Measures that improve links to strategic transport routes. This may be both capacity-increasing measures and partial new construction to a limited extent for the purpose of strengthening sustainable transport. <p>There are good prospects of work to promote sustainable transport in Upper Norrland contributing to development featuring gender equality and diversity. The activities can lead to a more even distribution of good living and working conditions between men and women and make broad participation possible for everyone. This work can contribute to improving knowledge of conditions, needs and circumstances for different categories of people and sectors. Among other things, measures should take account of the gender segregation that exists in the labour market and how it is linked to the industries and sectors included in the focal areas of Upper Norrland.</p> <p>Active efforts to support a green shift are important for Upper Norrland. It is necessary to make sustainable transport possible for the shift and to create new jobs in a greener economy. The activities can contribute to an environmentally driven shift and sustainable growth where the development of ideas,</p>	

Investment priority	7c — Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility
<p>products and services contributes to the region’s natural resources being used sparingly and in a resource-efficient way.</p> <p>Principal target groups for the activities are public-sector operators, enterprises, small and medium-sized enterprises, economic associations and non-profit organisations.</p> <p>Principal beneficiaries are public-sector operators, small and medium-sized enterprises, economic associations and non-profit organisations, etc.</p>	

2.A.6.2 Guiding principles for selection of operations

Investment priority	7c — Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility
<p>Projects that collaborate or create synergies with other projects/programmes</p> <p>The regional Structural Funds programme satisfies only parts of the region’s development needs. The underpinning principle is that operations in several funds and programmes complement and reinforce one another. Operations that build capacity for and create collaboration with the Connecting Europe Facility are particularly crucial.</p> <p>Projects that support the EU Strategy for the Baltic Sea Region</p> <p>The increasing regional cooperation in the northern part of the EU and in neighbouring countries in the Arctic Barents Region and in the Baltic Sea Region provides opportunities to tackle the common challenges on a broad front.</p> <p>Projects that illustrate and develop the horizontal criteria as instruments for growth</p> <p>It is crucial that the horizontal criteria, gender equality, diversity and the environment are integrated into the projects based on the possibilities of the projects generating sustainable growth. The underlying principle is that the projects need to relate to values such as gender equality, diversity and the environment and can contribute to attaining the specific objectives.</p>	

Investment priority	7c — Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility
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Projects that utilise experience and knowledge

It is crucial that the regional Structural Funds programme for investments in growth and employment build on experience gained from the previous programming period and that the region take new strides forwards. There is therefore demand for new and enhanced working methods or forms of collaboration.

Involvement of trade and industry

Small and medium-sized enterprises are a principal target group for the development of sustainable transport. An important prerequisite for attaining the specific objectives in this priority axis is that the projects are based on what the target group demands. It is therefore important that trade and industry are involved in both planning and implementation of the projects.

Projects that take account of national transport and county transport plans, and projects that contribute to TEN-T or strengthen the links to TEN-T

Operations that link the transport system to strategic transport routes in the trans-European network for transport infrastructure are crucial. This may relate to the interconnecting capacity and operational compatibility of the networks and access to such networks.

Projects devised in accordance with the four-step principle

2.A.6.3 Planned use of financial instruments (where appropriate)

Investment priority	7c — Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility
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2.A.6.4 Planned use of major projects (where appropriate)

Investment priority	7c — Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility

2.A.6.5 Output indicators by investment priority and, where appropriate by category of region

Table 5: Common and programme-specific result indicators (by investment priority, broken down by category of region for the ESF, and where relevant, for the ERDF)

Investment priority		7c — Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility							
ID	Indicator	Measurement unit	Fund	Category of region (where relevant)	Target value (2023)			Source of data	Frequency of reporting
					M	W	T		
1	Number of transport solutions	Transport solutions	ERDF	More developed			20.00	Managing authority's computer systems	Continuous
2	Quantity of increased volume of goods on the railways	Tonnes of goods	ERDF	More developed			620 000.00	Project owner	Every other year
3	Quantity of increase in loaded/unloaded goods at terminal	Tonnes of goods	ERDF	More developed			700 000.00	Project owner	Every other year

2.A.7 Social innovation, transnational cooperation and contribution to thematic objectives 1-7

Priority axis	5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures

2.A.8 Performance framework

Table 6: Performance framework of the priority axis (by fund and, for the ERDF and ESF, category of region)

Priority axis		5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures											
ID	Indicator type	Indicator or key implementation step	Measurement unit, where appropriate	Fund	Category of region	Milestone for 2018			Final target (2023)			Source of data	Explanation of relevance of indicator, where appropriate
						M	W	T	M	W	T		
100	F	Financial indicator	EUR	ERDF	More developed			29 307 329			97 691 098.00	Managing authority	
1	O	Number of transport solutions	Transport solutions	ERDF	More developed			5			20.00	Project	

Additional qualitative information on the establishment of the performance framework

The managing authority has deemed it most appropriate to make use of outcome indicators for the performance framework and supplement these with one financial indicator per priority axis. This assessment is justified by the fact that output indicators can be fully attributed to implementation of the programme and that they are possible to measure continuously during implementation of the programme. Result indicators will not be used.

The methods and criteria that have been used to select relevant output indicators follow the guidelines issued by the Commission. The calculations of a reasonable value for the interim target for 2018 for each selected output indicator have been based on experience from the previous programming period and an assessment of how quickly projects in the priority axis concerned can be expected to generate outcomes for each output indicator. The estimated

total number of projects in each priority axis has also been taken into account. The managing authority is of the opinion that the selected output indicators fulfil the requirement to cover more than 50 % of the financial allocation for the priority axis.

With regard to the financial indicator 'Resources paid' per priority axis, the calculations have been based on the requirement for all payments included to be based on eligible costs paid to the beneficiary and for these to be certified by the certifying authority. The managing authority has taken account of experience from the programming period 2007-2013 and has focused, in particular, on how the payments were carried out during the corresponding part of the programming period, i.e. 2007-2011. The fact that the programme for the programming period 2014-2020 is more focused and concentrated and that the managing authority has a smooth organisation in place has also been taken into account. The level of payment has differed between the priority axes of the programmes over the programming period 2007-2013, and the managing authority has taken account of these variations in establishing the performance framework.

The interim target for 2018 for the financial indicator for priority axis 2 has been set at 20 %, which is somewhat lower than for other priority axes. Projects in this priority axis are deemed to be time-consuming and to be highly complex in the start-up phase due to extensive planning and procurements, which shifts the timing of major expenses.

The managing authority is considering the options for permitting longer project periods than have been possible during the programming period 2007-2013 in certain particular cases. Longer project periods mean that the outcome for the outcome indicators will come relatively late in the programming period, with the result that the interim targets for 2018 in the performance framework are lower in these cases than for other priority axes.

In priority axis 2, in which broadband investments are planned, the results of implemented operations cannot be expected to be reported until a long time into the programming period. The interim target for the selected output indicator 'Added number of enterprises that have gained access to broadband at speeds of at least 100 Mbps' has been estimated to be 0. In order, nevertheless, to follow up the effects of approved operations in this priority axis, the programme will use the key implementation step 'Planned number of enterprises with access to broadband at speeds of at least 100 Mbps based on projects financed in the priority axis'. This key implementation step will be monitored continuously during programme implementation and reported back in the annual implementation report submitted to the Commission.

In most cases, only one output indicator per priority axis has been selected for the performance framework. The reason for this is that the programme is so focused and concentrated that each selected output indicator is deemed to cover a large proportion of the expected projects. Having few indicators in the performance framework also makes it easier to follow up and have an overview of implementation and improves the prospects for corrective actions if the trends suggest that the performance framework will not be fulfilled.

2.A.9 Categories of intervention

Categories of intervention corresponding to the content of the priority axis based on a nomenclature adopted by the Commission, and indicative breakdown of Union support.

Tables 7-11: Categories of intervention

Table 7: Dimension 1 — Intervention field

Priority axis		5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures	
Fund	Category of region	Code	€ amount
ERDF	Outermost or northern sparsely populated	024. Railways (TEN-T Core)	14 302 840.00
ERDF	Outermost or northern sparsely populated	025. Railways (TEN-T comprehensive)	1 889 054.00
ERDF	Outermost or northern sparsely populated	026. Other Railways	5 127 433.00
ERDF	Outermost or northern sparsely populated	035. Multimodal transport (TEN-T)	2 428 785.00
ERDF	Outermost or northern sparsely populated	036. Multimodal transport	8 095 948.00
ERDF	Outermost or northern sparsely populated	039. Seaports (TEN-T)	5 667 164.00
ERDF	Outermost or northern sparsely populated	040. Other seaports	5 667 164.00
ERDF	Outermost or northern sparsely populated	043. Clean urban transport infrastructure and promotion (including equipment and rolling stock)	3 238 379.00
ERDF	Outermost or northern sparsely populated	044. Intelligent transport systems (including the introduction of demand management, tolling systems, IT monitoring control and information systems)	2 428 782.00

Table 8: Dimension 2 — Form of finance

Priority axis		5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures	
Fund	Category of region	Code	€ amount
ERDF	More developed	01. Non-repayable grant	48 845 549.00

Table 9: Dimension 3 — Territory type

Priority axis		5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures	
Fund	Category of region	Code	€ amount
ERDF	More developed	01. Large Urban areas (densely populated >50 000 population)	10 746 021.00
ERDF	More developed	02. Small Urban areas (intermediate density >5 000 population)	19 538 220.00
ERDF	More developed	03. Rural areas (thinly populated)	18 561 308.00

Table 10: Dimension 4 — Territorial delivery mechanisms

Priority axis		5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures	
Fund	Category of region	Code	€ amount
ERDF	More developed	07. Not applicable	48 845 549.00

Table 11: Dimension 6 — ESF secondary theme (ESF and YEI only)

Priority axis		5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures	
Fund	Category of region	Code	€ amount

2.A.10 Summary of the planned use of technical assistance including, where necessary, actions to reinforce the administrative capacity of authorities involved in the management and control of the programmes and beneficiaries (where appropriate) (by priority axis)

Priority axis:	5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures

2.B DESCRIPTION OF THE PRIORITY AXES FOR TECHNICAL ASSISTANCE

2.B.1 Priority axis

ID of the priority axis	6
Title of the priority axis	Technical assistance

2.B.2 Justification for establishing a priority axis covering more than one category of region (where applicable)

2.B.3 Fund and category of region

Fund	Category of region	Calculation basis (total eligible expenditure or eligible public expenditure)
ERDF	More developed	Fel! Hittar inte referenskölla.

2.B.4 Specific objectives and expected results

ID	Specific objective	Results that the Member States seek to achieve with Union support
01	Technical assistance is to lead to the programme being implemented in an appropriate, legally sound and effective way that contributes to the objectives of the programme being met in other priority axes	Technical assistance is to lead to the programme being implemented in an appropriate, legally sound and effective way that contributes to the objectives of the programme being met in other priority axes.

2.B.5 Result indicators

Table 12: Programme-specific result indicators (by specific objective) (for ERDF/ESF/Cohesion Fund)

Priority axis		01 - Tekniskt stöd ska leda till att programmet genomförs ändamålsenligt, rättssäkert och effektivt samt bidrar till att programmets mål nås inom övriga insatsområden.									
ID	Indicator	Measurement unit	Baseline value			Baseline year	Target value (2023)			Source of data	Frequency of reporting
			M	W	T		M	W	T		

2.B.6 Actions to be supported and their expected contribution to the specific objectives (by priority axis)

2.B.6.1 A description of actions to be supported and their expected contribution to the specific objectives

Priority axis	6 — Technical Assistance
	<p>Technical assistance can be provided so that the programme can be implemented in an effective and legally sound way and to inform about and encourage broad participation in the programme. Technical assistance can fund a number of activities, including preparations, administration, monitoring, evaluation, information and controls. The monitoring committee decides on the budget for technical assistance. The managing authority decides on the payment of technical assistance.</p> <p>The following costs can be co-financed by technical assistance for the managing and certifying authorities: preparations, administration, controls, evaluation, information efforts, seminars, computer systems and evaluations.</p> <p>The costs of auditing for the audit authority can be co-financed by technical assistance.</p> <p>The costs of preparing for and holding meetings of the monitoring committee can be co-financed by technical assistance.</p> <p>The costs of holding Structural Fund Partnership meetings can be co-financed by technical assistance.</p>

Priority axis	6 — Technical Assistance
<p>The technical assistance is to be used to achieve simple and effective implementation. The focus in development work will be on:</p> <ul style="list-style-type: none"> • more simplification and reduced administrative burden for project sponsors • greater coordination and transnational collaboration between different programmes, projects and funds • result-oriented working practices where project selection, indicators, follow-up, evaluation and learning are combined. 	

2.B.6.2 Output indicators expected to contribute to results

Table 13: Output indicators (by priority axis) (for ERDF/ESF/Cohesion Fund)

Priority axis		6 - Tekniskt stöd				
ID	Indicator (name of indicator)	Measurement unit	Target value (2023) (optional)			Source of data
			M	W	T	
100	Andel utbetalade medel av programmets totala budget	Procent			100.00	Förvaltande myndighets datasystem
200	Antal externa utvärderingar som har genomförts under programperioden	Antal			15.00	Förvaltande myndighet
300	Antalet anställda (årsarbetskrafter) vilkas löner medfinansieras av TA	Årsarbetskrafter				Förvaltande myndighet - Årliga genomföranderapporten

2.B.7 Categories of intervention (by priority axis)

Corresponding categories of intervention based on a nomenclature adopted by the Commission, and an indicative breakdown of the Union support

Tables 14-16: Categories of intervention

Table 14: Dimension 1 — Intervention field

Priority axis		6 — Technical Assistance	
Fund	Category of region	Code	€ Amount
ERDF	More developed	121. Preparation, implementation, monitoring and inspection	7 634 362.00
ERDF	More developed	122. Evaluation and studies	424 131.00
ERDF	More developed	123. Information and communication	424 131.00

Table 15: Dimension 2 — Form of finance

Priority axis		6 — Technical Assistance	
Fund	Category of region	Code	€ Amount
ERDF	More developed	01. Non-repayable grant	8 482 624.00

Table 16: Dimension 3 — Territory type

Priority axis		6 — Technical Assistance	
Fund	Category of region	Code	€ Amount
ERDF	More developed	01. Large Urban areas (densely populated >50 000 population)	1 866 177.00
ERDF	More developed	02. Small Urban areas (intermediate density >5 000 population)	3 393 049.00
ERDF	More developed	03. Rural areas (thinly populated)	3 223 398.00

3. FINANCING PLAN

3.1 Financial appropriation from each fund and amounts for performance reserve

Table 17

Fund	Category of region	2014		2015		2016		2017		2018		2019		2020		Total	
		Main allocation	Performance reserve	Main allocation	Performance reserve												
ERDF	More developed	11 720 421.00	705 300.00	11 955 067.00	719 418.00	12 194 375.00	733 819.00	12 438 424.00	748 505.00	12 687 351.00	763 484.00	12 941 250.00	778 763.00	13 200 206.00	794 347.00	87 137 094.00	5 243 636.00
ERDF	Outermost or northern sparsely populated	15 092 136.00	1 006 142.00	15 394 283.00	1 026 286.00	15 702 437.00	1 046 829.00	16 016 693.00	1 067 780.00	16 337 228.00	1 089 149.00	16 664 169.00	1 110 945.00	16 997 623.00	1 133 175.00	112 204 569.00	7 480 306.00
Total		26 812 557.00	1 711 442.00	27 349 350.00	1 745 704.00	27 896 812.00	1 780 648.00	28 455 117.00	1 816 285.00	29 024 579.00	1 852 633.00	29 605 419.00	1 889 708.00	30 197 829.00	1 927 522.00	199 341 663.00	12 723 942.00

3.2 Total financial appropriation by fund and national co-financing (€)

Table 18a: Financing plan

Priority axis	Fund	Category of region	Basis for calculation of Union support (Total eligible cost or public eligible cost)	Union support (a)	National counterpart (b) = (c) + (d)	Indicative breakdown of national counterpart		Total funding (e) = (a) + (b)	Co-financing rate (f) = (a) / (e) (2)	EIB contributions (g)	Main allocation		Performance reserve		Performance reserve amount as proportion of total Union support (l) = (j) / (a) * 100
						National public funding (c)	National private funding (d) (1)				Union support (h) = (a) – (j)	National Counterpart (i) = (b) – (k)	Union support (j)	National Counterpart (k) = (b) * ((j) / (a))	
1	ERDF	More developed	Total	27 910 862.00	27 910 862.00	26 513 419.00	1 397 443.00	55 821 724.00	50.0000000000 %		26 166 432.00	26 166 432.00	1 744 430.00	1 744 430.00	6.25 %
1	ERDF	Outermost or northern sparsely populated	Total	33 205 934.00	33 205 934.00	31 543 377.00	1 662 557.00	66 411 868.00	50.0000000000 %		31 130 563.00	31 130 563.00	2 075 371.00	2 075 371.00	6.25 %
2	ERDF	More developed	Total	4 026 909.00	4 026 909.00	3 825 092.00	201 817.00	8 053 818.00	50.0000000000 %		3 775 226.00	3 775 226.00	251 683.00	251 683.00	6.25 %
2	ERDF	Outermost or northern sparsely populated	Total	6 149 247.00	6 149 247.00	5 841 064.00	308 183.00	12 298 494.00	50.0000000000 %		5 764 919.00	5 764 919.00	384 328.00	384 328.00	6.25 %
3	ERDF	More developed	Total	40 359 517.00	40 359 517.00	38 336 813.00	2 022 704.00	80 719 034.00	50.0000000000 %		37 837 046.00	37 837 046.00	2 522 471.00	2 522 471.00	6.25 %
3	ERDF	Outermost or northern sparsely populated	Total	31 484 145.00	31 484 145.00	29 906 249.00	1 577 896.00	62 968 290.00	50.0000000000 %		29 516 386.00	29 516 386.00	1 967 759.00	1 967 759.00	6.25 %
4	ERDF	More developed	Total	11 600 818.00	11 600 818.00	10 749 418.00	851 400.00	23 201 636.00	50.0000000000 %		10 875 766.00	10 875 766.00	725 052.00	725 052.00	6.25 %
5	ERDF	Outermost or northern sparsely populated	Total	48 845 549.00	48 845 549.00	46 397 549.00	2 448 000.00	97 691 098.00	50.0000000000 %		45 792 701.00	45 792 701.00	3 052 848.00	3 052 848.00	6.25 %

Priority axis	Fund	Category of region	Basis for calculation of Union support (Total eligible cost or public eligible cost)	Union support (a)	National counterpart (b) = (c) + (d)	Indicative breakdown of national counterpart		Total funding (e) = (a) + (b)	Co-financing rate (f) = (a) / (e) (2)	EIB contributions (g)	Main allocation		Performance reserve		Performance reserve amount as proportion of total Union support
						National public funding (c)	National private funding (d) (1)				Union support (h) = (a) – (j)	National Counterpart (i) = (b) – (k)	Union support (j)	National Counterpart (k) = (b) * ((j) / (a))	(l) = (j) / (a) * 100
6	ERDF	More developed	Public	8 482 624.00	8 482 624.00	8 482 624.00	0.00	16 965 248.00	50.0000000000 %		8 482 624.00	8 482 624.00			
Total	ERDF	More developed		92 380 730.00	92 380 730.00	87 907 366.00	4 473 364.00	184 761 460.00	50.0000000000 %		87 137 094.00	87 137 094.00	5 243 636.00	5 243 636.00	5.68 %
Total	ERDF	Outermost or northern sparsely populated		119 684 875.00	119 684 875.00	113 688 239.00	5 996 636.00	239 369 750.00	50.0000000000 %		112 204 569.00	112 204 569.00	7 480 306.00	7 480 306.00	6.25 %
Grand total				212 065 605.00	212 065 605.00	201 595 605.00	10 470 000.00	424 131 210.00	50.0000000000 %	0.00	199 341 663.00	199 341 663.00	12 723 942.00	12 723 942.00	

(1) To be completed only when priority axes are expressed in total costs.

(2) This rate may be rounded to the nearest whole number in the table. The precise rate used to reimburse payments is the ratio (f).

Table 18c: Breakdown of the financial plan by priority axis, fund, category of region and thematic objective

Priority axis	Fund	Category of region	Thematic objective	Union support	National counterpart	Total funding
Strengthening research, technological development and innovation	ERDF	More developed	Strengthening research, technological development and innovation	27,910,862.00	27,910,862.00	55,821,724.00
Strengthening research, technological development and innovation	ERDF	Outermost or northern sparsely populated	Strengthening research, technological development and innovation	33,205,934.00	33,205,934.00	66,411,868.00
Enhancing access to, and use and quality of, information and communication technologies;	ERDF	More developed	Enhancing access to, and use and quality of, information and communication technologies	4,026,909.00	4,026,909.00	8,053,818.00
Enhancing access to, and use and quality of, information and communication technologies	ERDF	Outermost or northern sparsely populated	Enhancing access to, and use and quality of, information and communication technologies	6,149,247.00	6,149,247.00	12,298,494.00
Enhancing the competitiveness of SMEs	ERDF	More developed	Enhancing the competitiveness of small and medium-sized enterprises, the agricultural sector (for the EAFRD) and the fisheries and aquaculture sector (for the EMFF)	40,359,517.00	40,359,517.00	80,719,034.00
Enhancing the competitiveness of SMEs	ERDF	Outermost or northern sparsely populated	Enhancing the competitiveness of small and medium-sized enterprises, the agricultural sector (for the EAFRD) and the fisheries and aquaculture sector (for the EMFF)	31,484,145.00	31,484,145.00	62,968,290.00
Supporting the shift towards a	ERDF	More developed	Supporting the shift towards a low-carbon economy in all sectors	11,600,818.00	11,600,818.00	23,201,636.00

Priority axis	Fund	Category of region	Thematic objective	Union support	National counterpart	Total funding
low-carbon economy in all sectors						
Promoting sustainable transport and removing bottlenecks in key network infrastructures	ERDF	Outermost or northern sparsely populated	Promoting sustainable transport and removing bottlenecks in key network infrastructures	48,845,549.00	48,845,549.00	97,691,098.00
Total				203,582,981.00	203,582,981.00	407,165,962.00

Table 19: Indicative amount of support to be used for climate change objectives

Priority axis	Indicative amount of support to be used for climate change objectives (€)	Proportion of the total allocation to the operational programme (%)
3	4,310,619.00	2.03%
4	10,347,929.80	4.88%
5	19,538,219.60	9.21%
Total	34,196,768.40	16.13%

4. INTEGRATED APPROACH TO TERRITORIAL DEVELOPMENT

Description of the integrated approach to territorial development taking into account the content and objectives of the operational programme having regard to the Partnership Agreement and showing how the operational programme contributes to the accomplishment of the objectives of the operational programme and expected results.

The Upper Norrland programme area comprises the counties of Norrbotten and Västerbotten. The region is part of Europe's NSPA (Northern Sparsely Populated Areas). The area accounts for around 10 % of the EU's total land area, but less than 0.5 % of the EU's total population live in the region (fewer than 8 inhabitants per square kilometre). Upper Norrland includes parts of Sápmi, the geographical area that is the historical area of settlement of the Sami people. The region is notable for long distances, a sparse population structure and ageing and declining population.

The programme has five priority axes that are integrated and jointly address the challenges and opportunities for Upper Norrland. The programme can create innovations and businesses by using and/or challenging climatic and geographical conditions such as cold, darkness, distance, demographics and sparse population.

The dense and knowledge-intensive environments in Upper Norrland are principally concentrated in localities close to the region's universities and research institutes. This means that the opportunities for **innovation support** look different in different parts of the region, which necessitates location-independent innovation support systems in the more sparsely populated environments of the region. An efficient **broadband infrastructure** is a crucial area of strategic development and is crucial to the region's development and growth. The region's sparse population structure and long distances make it more difficult for diversity to be attained in trade and industry and necessitates innovative thinking and **innovative solutions in enterprise**. Enterprises in Upper Norrland experience access to capital and infrastructure as greatly inhibiting the growth of enterprises. Upper Norrland has high energy intensity in comparison with Sweden as a whole, largely due to the long distances and the climate, but also industry. This demands innovative measures to achieve **reduced carbon dioxide emissions**. In addition, long distances between localities signify great dependence on a functioning and robust **transport system** for both goods and passenger traffic.

Upper Norrland will contribute to the development of its regional areas of strength during the programming period 2014-2020 through cooperation and synergies.

4.1 Community-led local development (where appropriate)

The approach to the use of community-led local development instruments and the principles for identifying the areas in where they will be implemented

Not applicable.

4.2 Integrated actions for sustainable urban development (where appropriate)

Where appropriate the indicative amount of ERDF support for integrated actions for sustainable urban development, to be implemented in accordance with the provisions under Article 7(2) of Regulation (EU) No 1301/2013 and the indicative allocation of ESF support for integrated action.

Increasing urbanisation makes environmental, social and economic demands on sustainable urban development. This signifies a need to develop sector-wide solutions. The cities act as drivers of growth in their regional surroundings. It is therefore important to utilise the potential and synergies that can arise through good collaboration between sector areas and between the urban regions, their surroundings and other parts of the country.

Intra-regional urbanisation is taking place in Upper Norrland, which poses increased challenges, but also offers opportunities, for the urban areas where the population is increasing, at the same time as sparseness of population in the region at large is being accentuated. There is a need in the region to develop methods and working practices that encourage collaboration between urban and rural areas to find attractive and sustainable solutions to the challenges and opportunities the region has.

Earmarking resources for sustainable urban development is not a priority in the Structural Funds programme for Upper Norrland. Measures in relation to sustainable urban development can be taken in selected priority axes. See Chapter 1.1.4.

Table 20: Integrated actions for sustainable urban development – indicative amounts of ERDF and ESF support

Fund	ERDF and ESF support (indicative) (€)	Proportion of fund's total allocation to programme
Total ERDF	0.00	0.00%
TOTAL ERDF+ESF	0.00	0.00%

4.3 Integrated Territorial Investment (ITI) (where appropriate)

The approach to the use of Integrated Territorial Investments (ITIs) (as defined in Article 36 of Regulation (EU) No 1303/2013) other than in cases covered by 4.2, and their indicative financial allocation from each priority axis.

Not applicable.

Table 21: Indicative financial allocation to ITI other than those mentioned under point 4.2 (aggregate amount)

Priority axis	Fund	Indicative financial allocation (Union support) (€)
Fel! Hittar inte referenskölla.		0.00

4.4 The arrangements for interregional and transnational actions, within the operational programme, with beneficiaries located in at least one other Member State (where appropriate)

It will be possible for both interregional and transnational cooperation to take place in the programme in all priority axes provided that they contribute to fulfilling the goals of the programme. The operations are to be based on a transnational analysis. The managing authority can approve an operation being implemented outside the programme under the terms stated in Article 70(2) of Regulation (EU) No 1303/2013.

Cooperative measures that contribute to the EU Strategy for the Baltic Sea Region will be supported by the programme in two ways:

A — Macro-regionally integrated projects

Project applications are written from the outset with transnational cooperation as an integral part of the project. The partners who are to be included in the project from other Member States in the macro-region are identified and intend to apply for aid from their particular programmes in order to be able to take part in the project.

B — Transnational component

Projects that have already been started are given an opportunity to apply for further funding for cooperation with other relevant projects in the macro-region. Funding for cooperation being applied for separately through a ‘transnational component’ provides greater flexibility regarding the length and focus of the cooperation.

It is worth noting that the cooperative measures can be taken with parties from various structural and investment funds, for example between the ERDF and the ESF or the EAFRD.

The managing authority will provide information on the opportunities to finance cooperation with operators in the macro-region. A specific example may be special calls for proposals focused on the EU Strategy for the Baltic Sea Region.

The operations that will be supported as above are to have added value for the programme area and contribute to the goals and priorities of the strategy.

The collaborative measures in the programme should be focused on finding and/or implementing common solutions to identified transboundary problems

4.5 Contribution of the planned actions under the programme to macro-regional and sea basin strategies, subject to the needs of the programme area as identified by the Member State (where appropriate)

(Where the Member State and regions participate in macro-regional strategies and sea basin strategies).

Many of the challenges facing Sweden and the EU are transnational in nature, for the local, regional and national levels. The Europe 2020 strategy also emphasises the importance of closer cooperation between the Member States. The EU Strategy for the Baltic Sea Region provides important guidance for the selection of operations and contributes to enabling the regional Structural Funds programme to be used in a more purposeful and focused way to meet common challenges in the macro-region.

A success factor for the EU Strategy for the Baltic Sea Region is functioning multi-level management between different sectors of society. All levels need to take part in efforts to attain the goals of the strategy: saving the marine environment, linking the region together and increasing prosperity.

A Baltic Sea Region Strategy project can be made up of either a Flagship Project, as stated in the strategy action plan, or projects with a clear macro-regional impact that contribute to attaining the goals and indicators of the strategy by contributing to implementing one or more actions in the action plan.

In the Swedish programme context, the contributions to implementation of the EU Strategy for the Baltic Sea Region will principally signify activity carried out in cooperation with one or more other countries in the macro-region.

Chapter 1 of the programme contains a description of how the programme relates to the EU Strategy for the Baltic Sea Region. Chapter 2 contains a description under each priority axis of whether, and if so how, this strategy is to be managed in the priority axis concerned. The description of the issue is thus integrated into the programme.

5. SPECIFIC NEEDS OF GEOGRAPHICAL AREAS MOST AFFECTED BY POVERTY OR TARGET GROUPS AT HIGHEST RISK OF DISCRIMINATION OR SOCIAL EXCLUSION (WHERE APPROPRIATE)

5.1 Geographical areas most affected by poverty/target groups at highest risk of discrimination or social exclusion

Not applicable to the programme.

5.2 Strategy to address the specific needs of geographical areas most affected by poverty/target groups at highest risk of discrimination or social exclusion, and where relevant, the contribution to the integrated approach set out in the Partnership Agreement

Not applicable to the programme.

Table 22: Actions to address specific needs of geographical areas most affected by poverty/target groups at highest risk of discrimination or social exclusion

Target group/geographical area	Main types of planned action as part of integrated approach	Priority axis	Fund	Category of region	Investment priority
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6. SPECIFIC NEEDS OF GEOGRAPHICAL AREAS WHICH SUFFER FROM SEVERE AND PERMANENT NATURAL OR DEMOGRAPHIC HANDICAPS (WHERE APPROPRIATE)

The whole programme area is subject to challenges with reference to Article 174 of the Treaty.

The Upper Norrland programme area comprises the counties of Norrbotten and Västerbotten. Upper Norrland is part of Europe's NSPA (Northern Sparsely Populated Areas). The area accounts for around 10 % of the EU's total land area, but less than 0.5 % of the EU's total population live in the region (fewer than 8 inhabitants per square kilometre). Distances within the region and to external markets are long. At the same time, it is an area that provides added value for Europe, one that is rich in natural resources, such as minerals, forests and energy supply, that are needed for Europe's industries and economic growth. Upper Norrland includes parts of Sápmi, the geographical area that is the historical area of settlement of the Sami people.

The demographic situation in Upper Norrland represents a challenge in many respects. Certain localities in the coastal areas are densely populated, with high economic and demographic growth, while a large proportion of the region's interior is experiencing a decline in population and slower economic growth. Many parts of the programme area have a problematic age breakdown, with an over-preponderance of elderly people and men, an imbalance that is partially due to young people and women moving to larger cities for studies and access to a broader labour market, which in turn also affects the birth rate.

The labour market is divided on gender grounds, with most women employed in sectors such as medical and social care and education and men in sectors such as construction, transport, manufacturing and minerals extraction. Upper Norrland has a mix of enterprises in the services, manufacturing and primary industry. The service industries are a significant part of trade and industry in the city's larger cities.

In other areas, the structure of trade and industry is often linked to the rapidly growing raw materials and visitor industries. The large investments made in areas with few inhabitants make great demands on local and regional operators to satisfy the need for community planning, community services, infrastructure and peripheral activities.

Impact of the programme on sparse population, long distances and demographic development

The long distances and the sparse population of the region are emphasised in the Partnership Agreement and in the regional development strategies (RDSs). The challenges are of key significance to the region's future opportunities for growth and employment, and they therefore also underpin the chosen priorities and objectives in the regional Structural Funds programme for Upper Norrland.

The universities and cities play an important role as drivers of growth in the region. The region's three universities, Umeå University, Luleå University of Technology and the

Swedish University of Agricultural Sciences) are a seedbed for the development and establishment of knowledge-intensive enterprises. The knowledge-intensive environments in the region are principally concentrated in localities close to the region's universities and research institutes. The programme's operations contribute in various ways to enhancing accessibility to the region's innovation support systems for enterprises, public-sector and non-profit operators and users, which is an important aspect in fostering growth and a positive population trend throughout the programme area.

Operations are also targeted at knowledge transfer between enterprises and universities and between universities and enterprises. This makes demands on innovative methods and approaches in order to bridge geographical distances and knowledge and cultural gaps, in the same way that the long distances, climate and sparse population are a good basis for innovations.

Upper Norrland has good potential to address the challenges of sparse population, long distances and demographic trends by developing the region's focal areas and by creating intersections between these. The focal areas identify the region's areas of strength where competitive advantages exist and where employment is expected to increase. By targeting operations at these areas, the programme will support the development of more diversified trade and industry in those areas where the sector structure is very unbalanced. This consequently also broadens the labour market and makes it possible for women and men, young people and people born abroad to start up businesses and find attractive employment.

Problems often arise with non-functioning market forces in sparsely populated areas, as the costs become higher per capita. This makes it difficult for enterprises to compete on the same terms as other regions and to meet their needs for services and public service. The lack of density of, or proximity to, strongly resourced operators who can drive interesting development initiatives forwards is a reason for the programme to support such an initiative.

7. AUTHORITIES AND BODIES RESPONSIBLE FOR MANAGEMENT, CONTROL AND AUDIT AND THE ROLE OF RELEVANT PARTNERS

7.1 Relevant authorities and bodies

Table 23: Relevant authorities and bodies

Authority/body	Name of authority/body and department or unit	Head of authority/body (position or post)
Managing authority	Swedish Agency for Economic and Regional Growth	Director-General
Certifying authority	Swedish Agency for Economic and Regional Growth	Director-General
Audit authority	Swedish National Financial Management Authority	Head of EU Audit Department
Body to which Commission will make payments	Swedish National Debt Office	Director-General of the National Debt Office

7.2 Involvement of relevant partners

7.2.1 Actions taken to involve the relevant partners in the preparation of the operational programme, and the role of those partners in the implementation, monitoring and evaluation of the programme

Västerbotten Regional Council has been commissioned by the Government to coordinate preparations and the drafting of proposals for a regional Structural Funds programme for investments in growth and employment in Upper Norrland, 2014-2020. The programme covers the counties of Västerbotten and Norrbotten. The point of departure for the programme is the Europe 2020 strategy for smart, sustainable and inclusive growth in Europe, the Partnership Agreement between Sweden and the EU, and the government guidelines for preparation and the regional strategies for development of the counties.

The programme has been developed in close dialogue with Norrbotten County Administrative Board, among other things through joint drafting groups for the different parts of the programme.

The Ministry of Enterprise, Energy and Communications and the Swedish Agency for Economic and Regional Growth (managing authority and programme office) have also taken part in the programming work. The Executive Committee of Region Västerbotten has continuously monitored and managed the work process. In an early stage, dialogue was launched with the ex-ante evaluations at the Swedish Agency for Growth Policy Analysis, and its recurrent recommendations have been of value for approaches and programme logic.

In each county, the partnerships attached to the work on the regional growth issues and the development strategies have been a forum for dialogue and endorsement of the work. These are the Västerbotten Development Council, the Norrbotten regional partnership and the Structural Funds partnership in Upper Norrland. These partnerships include representatives from trade and industry, the social partners, universities and colleagues, county councils, municipalities, operators in the social economy, etc.

A large group of stakeholders and operators were invited to a hearing on 21 August 2013 in Skellefteå for information and an opportunity to express views on the draft programme. A total of approximately 140 people attended from around 60 different organisations. Region Västerbotten has also on two occasions, publicly online, offered stakeholders an opportunity express views on the current drafts of the programme. In addition to this, information on the programme-drafting process has been provided at several further meetings and conferences in the counties, with the aim of reaching various stakeholder groups. More operators have been invited to take part in dialogue than have chosen to participate. In cases where non-participation has been deemed to have serious consequences for the contents of the programme, those affected have been contacted.

Possible fund collaboration has been satisfied in the programming process. A programme synergy workshop was held on 14 August 2013, for stakeholders with extensive fund and programme know-how (including managing authorities). The objective is for the regional Structural Funds programme to harmonise and complement the other EU programmes and strategies that exist in the programme geographical entity, such as the national ESF programme, the programmes for territorial cooperation, the Rural Development Programme, the Marine and Fisheries Programme and the EU Strategy for the Baltic Sea Region. Another aspiration is to make synergies possible between the regional Structural Funds programme and the EU sector programmes, such as Horizon 2020, Life, COSME, the Connecting Europe Facility, Erasmus for All, Creative Europe, etc.

The programme-drafting process has promoted multi-tier cooperation, with the national, regional and local levels all having taken part. The group of authorities to which the Swedish Agency for Economic and Regional Growth has offered collaboration have been invited to attend and have taken part in a hearing and have presented their views on the draft programme. The consultation with the partnerships and other participating operators and organisations, taken together, has influenced both the choice of thematic objectives and investment priorities, as well as target formulations and activities in the regional Structural Funds programme. Questions, comments and recommendations have been taken into account, and the partnership and participating operators and organisations have been able to monitor whether it has been possible for proposed changes to be incorporated into the various programme drafts.

Managing and certifying authorities

The Swedish Agency for Economic and Regional Growth is the managing and certifying authority for the regional Structural Funds with EU-controlled powers. The responsibilities of the managing authority include drafting, decisions on aid and payment of funds to project sponsors. The managing authority also has to carry out the tasks of the certifying authority.

In its drafting role, the Swedish Agency for Economic and Regional Growth also has to consult regional and national experts where necessary on technical issues and for regional analysis of needs. The purpose of this is to ensure a well endorsed basis for decisions. If financial aid is granted to a large enterprise, the managing authority has to make sure that the grant does not result in a significant loss of jobs at existing places of work in the Union.

The management system for the European Regional Development Fund was approved by the Commission in 2007, and no systemic errors have subsequently been observed by auditors. Sweden is therefore retaining the existing management system, and administrative capacity consequently remains good.

Audit authority

The Swedish Financial Management Authority is the audit authority for the regional Structural Funds programmes with EU-controlled powers.

Involvement of various stakeholders in programme implementation

The active participation of national, regional and local operators is required to implement the Europe 2020 strategy and its key objective of smart, sustainable and inclusive growth.

In the general regulation of the European Parliament and the Council, the European Commission sets requirements for the Member States to organise a broad partnership ahead of the preparation and implementation of a partnership agreement and operational programmes.

Stakeholders are involved in preparing a partnership agreement and in programme formulation, and will take part in the implementation, follow-up, status reporting and evaluation of the programme. Stakeholders are to participate in the monitoring committees for programmes.

Structural Funds Partnership

To ensure regional influence on implementation of the programme, a joint Structural Funds Partnership has been formed within the geographical area of the programme and a corresponding regional action plan for the European Social Fund.

The remit of the Structural Funds Partnership is set out in the Structural Funds Partnership Act (2007:459). The Structural Funds Partnership is tasked with setting priorities between project applications approved by the managing authority.

Applications have to be submitted to the managing authority, which is responsible for preparation and decisions on awarding aid. Before a decision is made on aid, the managing authority has to present material as a basis for decision-making and other material to the partnership and may grant aid only in accordance with the priorities set by the partnership.

When the managing authority has to issue a call for proposals in a programme, the criteria specific to the call are reconciled with the Structural Funds Partnership before the call for proposals is published. The chair of the Structural Funds Partnership has to convene meetings in consultation with the managing authority.

Monitoring committee

The Member States have to set up a committee to monitor implementation of the programme. A joint monitoring committee is set up for the eight regional Structural Funds programmes with representatives of stakeholders concerned. The committee is chaired by a representative of the Ministry of Enterprise, Energy and Communications. The Government responds separately on the composition and working practices of the committee.

The monitoring committee for the eight regional Structural Funds programmes has to form a joint committee with the monitoring committee of the European Social Fund Programme. The principal task of the committee is to address issues of coordination between the funds falling within the remit of the monitoring committee.

The monitoring committee for the regional Structural Funds programmes can form further committees on its own initiative.

Follow-up and evaluation

It is laid down in the Structural Funds Regulation that evaluations have to be made ‘in relation to the Union strategy for smart, sustainable and inclusive growth’. Systematic evaluation is essential to be able to assess the effectiveness, appropriateness and impact of policy, particularly with regard to the contribution of the operations to attaining the goals of the Europe 2020 strategy. As part of a strengthened focus on results, greater efforts need to be made to evaluate systematically the combined results and effects of the projects and the thematic operations and to highlight the significance of the operations in attaining the goals of the programmes and sustainable growth regionally and nationally.

Systematic follow-up and evaluation are to be part of the work on evaluation of both European cohesion policy and regional growth policy. The overall aim is to contribute to learning and to improve quality throughout the programme cycle, from programme planning and implementation of projects to implementation in regular activity. The evaluations are to change, improve and strengthen regional growth policy by disseminating experience and knowledge.

Follow-ups and evaluations will take place continuously and differ somewhat in character, and they will serve different purposes in different phases. To ensure good quality in implementation and good results in the programmes, there is a need for a clear cohesive system in which project selection, indicators, evaluation, participatory research and learning are combined. An important aspect of this is that routines for data collection relating, among other things, to indicators for follow-up and evaluation are planned at an early stage. Despite the level of aspiration on evaluation for learning having been raised during the programming period 2007-2013 and efforts in evaluation and participatory research having increased, there is still room for improvement. There is a general need for greater focus on performance, particularly in view of the requirements for this at EU level in this programming period. An area that needs to be developed is follow-up and evaluation of results, for example benefit should be measured with some regularity, and various forms of measurement of results and effects for sustainable growth and employments should be developed. Another area it will be important to evaluate and follow up is integration of the horizontal criteria and also contributing to increased learning in the area.

Work on evaluation during programme implementation is to be carried out by an independent party and feature methods for participatory research and theory-driven evaluation. Theory-driven evaluation means evaluation of both process and results and effects in the short and long terms, as well as possible implementation in regular activity. A key part of the evaluation remit is to coordinate methods of evaluation and ensure that they are developed so that it becomes possible to follow the long-term effects on sustainable growth and employment of the operations carried out in the programmes.

The programming period 2014-2020 is to feature a commitment to an evaluation approach and learning system that ensures feedback of experience from the projects and knowledge creation from programme implementation. It is essential for this purpose that parties involved in programme implementation, such as regional and national development stakeholders, the managing authority, the Structural Funds Partnership and project parties learn lessons from the operations under the programmes by following the evaluations and studying the evaluation results, but above all utilise the results in their continued work. Stakeholders also have to have good knowledge of the objectives and purpose of the programmes. Completed evaluations have to be published in line with the Commission directive to enable everyone affected by the programme to be reached, but also to create wider learning and inspiration.

Evaluation is to be linked clearly to process support, analytical efforts and platforms for learning and exchange of knowledge. Coordination has to take place with those responsible for evaluation for the other ESI Funds to create a combined picture of the aggregate contribution to structural changes for smart and inclusive sustainable development.

The requirement for greater coordination applies, in particular, to operations under the European Regional Development Fund and the European Social Fund aimed at making utilisation of fund resources more effective. This may concern joint evaluation of coordinated operations, the implementing organisations, a joint reference group for the monitoring committees of the European Social Fund and the European Regional Development Fund, joint dissemination and feedback initiatives and joint procurement of capacity development for project evaluation.

Dissemination of results from follow-ups and evaluations and ensuring that evaluations are put to use contribute to improved governance and fulfilment of objectives in the programmes. The Swedish ESF Council and the Swedish Agency for Economic and Regional Growth therefore have to collaborate with those responsible for growth regionally to pass on knowledge and experience from the fund activity and contribute to the follow-up and development of regional work on growth.

7.2.2 Global grants (for the ESF, where appropriate)

7.2.3 Allocation of an amount for capacity building (for the ESF, where appropriate)

8. COORDINATION BETWEEN THE FUNDS, THE EAFRD, THE EMFF AND OTHER UNION AND NATIONAL FUNDING INSTRUMENTS, AND WITH THE EIB

The mechanisms to ensure coordination between the Funds, the European Agricultural Fund for Rural Development (EAFRD), the European Maritime and Fisheries Fund (EMFF) and other Union and national funding instruments, and with the European Investment Bank (EIB), taking into account the relevant provisions laid down in the Common Strategic Framework.

The ERDF programmes will act in a context in which other European, national, regional and local initiatives, plans and programmes are significant to implementation of the programmes. An explicit aspiration for the programming period 2014-2020 is for work to focus more clearly on the goals in the Europe 2020 strategy and the EU Strategy for the Baltic Sea Region and to be linked to a greater degree to other national and EU-financed programmes and activities.

The national innovation strategy

The objectives and vision of the national innovation strategy to strengthen the Swedish innovation climate in different areas by 2020 are linked to thematic objective 1 and are of significance to regional development capacity. This clearly highlights the significance of the regional level in innovation work and the significance of being able to achieve the goals of the strategy, one of which is that Sweden's regional innovation environments should be globally attractive.

The national innovation strategy in the area of agriculture refers to the opportunities that exist to support innovative initiatives in the rural development programme under the European innovation partnership for agriculture, which, in turn, provides opportunities for cooperation at European level.

The regional Structural Funds programme in Upper Norrland meets the objectives of the national innovation strategy. See regional analysis and priority axis 1.

The national European Regional Development Fund programme

The fundamental purpose of the programme is to supply added value to the regional growth work and implementation of cohesion policy that cannot be achieved sufficiently under the regional Structural Funds programmes. The programme is to contribute to the following added values:

- Obtain qualitative projects in competition in order to support long-term development in certain technical areas.
- Support collaborative projects between counties and projects between counties and the national level that contribute to developing regional areas of strength based on the regional circumstances in different parts of the country.
- Contribute to developing multi-level control, that is to say between levels and participants.
- Promote operations that contribute to increased collaboration with other relevant EU programmes.

- Promote operations that contribute to increased involvement of business in both the preparation and implementation of the programme.
- Develop work on evaluation, feedback of knowledge and learning in work under the Structural Funds.

The national European Regional Development Fund programme contains the following priority axes:

Strengthening research, technological development and innovation — includes operations under thematic objective 1. The focus in this area is on developing Swedish areas of strength through transnational collaboration and research infrastructure.

Enhancing the competitiveness of SMEs. The operations in this area are aimed at increasing access to venture capital in early stages and promoting the emergence of more private stakeholders in the venture-capital market through the implementation of a financial instrument according to the fund-in-fund structure.

Supporting the shift towards a low-carbon economy in all sectors. This is the largest operational area from the point of view of budget and accommodates operations under thematic objective 4 focused partly on energy efficiency and partly on supply of capital, targeting enterprises whose activities contribute to the development of a low-carbon economy.

Operations of a process-supporting nature are also described in thematic area 4. This means national skills and method support that is to contribute to increased strategic learning by developing and disseminating knowledge across geographical and administrative boundaries.

COSME and Horizon 2020

Small and medium-sized companies can increase their knowledge intensity and R&I contacts and strengthen their international networks with assistance from the regional Structural Funds programmes. This facilitates future participation in national and European research and innovation programmes. Work towards strengthening links between the regional Structural Funds programmes and Horizon 2020 will be developed to lay the foundation for broader participation in Horizon 2020. It is to be possible for results from COSME projects and Horizon 2020 and previous research programmes to be converted into new projects in the regional Structural Funds programmes. At national level, there are a few important authorities, in particular the Swedish Agency for Innovation Systems (Vinnova) and the Swedish Agency for Economic and Regional Growth, which will have roles in both the European Regional Development Fund programmes, Horizon 2020 and COSME, which in practice will mean increased coordination and will make synergies possible. The foundation for this is laid through strategies for smart specialisation that contributes to harnessing of strength to increase the effects of the investments made in research and innovation and to boost growth and create more jobs.

It is stated in the Research and Innovation Bill, 2012/13:30, for example, that the Swedish Agency for Innovation Systems (Vinnova), based on its area of activity, should support the regions in their work on strategic innovation. The national innovation strategy also stresses the need to develop the interaction between national authorities, regional development operators and work on the programmes within the EU. The

importance of creating synergies and ensuring coordination between the programmes and the various EU funds and instruments for research, innovation and entrepreneurship is also emphasised in the Swedish Government's directives for the preparation of European Regional Development Fund programmes.

The guidelines for the RISE group (the research institutes) state in what way the institutes will assist in work on regional strategies relating to innovation environments and implementation of the European Regional Development Fund programmes at regional and national level.

The possibility of combining funding from the Horizon 2020 and ESI Funds in various initiatives during implementation is to be investigated. It may be a matter of collaborating across programme boundaries, national borders, combining entrepreneurship and innovation measures and promoting companies with growth potential.

Coordination between the ESI Funds and the public-public research partnerships (Joint Programming Initiatives, ERA-NETs and the research programmes under Article 185), as well as the public-private research partnerships under Article 187 (Joint Technology Initiatives) is to be ensured where applicable.

The Rural Development Programme provides an opportunity for farms to take part in cooperative initiatives between practitioners, advisers and researchers under the European innovation partnership for agriculture. These initiatives also create an opportunity for farms to forge international contacts and take part in projects under Horizon 2020.

A principle underpinning the regional Structural Funds programme in Upper Norrland is that operations in several funds and programmes complement and reinforce one another. Together, they contribute to broad and more cohesive growth. It is therefore crucial that the projects in themselves also search for a development operation in collaboration and synergy with other programmes.

The programme is therefore to contribute to regional projects and operations building capacity for, and creating collaboration with, the EU sector programmes (such as Horizon 2020, COSME, Erasmus, Creative Europe and LIFE). It is also desirable for the regional Structural Funds programme to contribute to exploiting experience from projects implemented in international cooperation by applying their results and learning regionally. Projects that collaborate or create synergies with other projects/programmes are therefore one of the principles for selection. See principles of project selection in each investment priority.

European Territorial Cooperation

The regional Structural Funds programme in Upper Norrland is to contribute to regional projects and operations building capacity for and creating collaboration with the programmes for European territorial cooperation (the Nord Programme, the Botnia-Atlantic programme, the Northern Periphery and Arctic Programme). It is also desirable for the regional Structural Funds programme to contribute to exploiting experience from projects implemented in international cooperation by applying their results and learning regionally. Projects that collaborate or create synergies with other projects/programmes

are therefore one of the principles for selection. See principles of project selection in each investment priority.

Connecting Europe Facility (CEF)

Good accessibility through a transport system that works smoothly is of key importance in attaining development capacity in all parts of the country with strengthened local and regional competitiveness. Investments in the transport system, for example in infrastructure, may be decisive for business, the labour market and the environment for sparsely populated regions.

The EU can make contributions to infrastructure building in the Union through EU cooperation on the Trans-European Transport Network (TEN-T) and, with effect from 2014, the ‘Connecting Europe Facility’ (CEF). The idea is that a well expanded infrastructure will provide better conditions to use the benefits of an EU without internal borders. Increasing international accessibility also gives Swedish regions access to larger markets. To enable funding to be applied for from the budget for the CEF, the infrastructure must be present on the maps contained in guidelines for TEN-T.

In addition to this, an important contribution can be made through the Structural Funds. Support for sustainable transport through the Structural Funds should be used for measures that strengthen business and the labour market and contribute to attractive living and residential environments. Grants through the Structural Funds complement the CEF through a greater focus on regional issues.

Telecommunications networks and services are increasingly becoming internet-based infrastructures, with broadband networks and digital services closely interrelated. The internet is a very important platform for communication, services, education, participation in public life and business activity. Trans-European access to reliable and fast broadband and digital services is therefore of great significance for economic growth, competitiveness and social integration.

Under the CEF and trans-European networks in the area of the telecommunications infrastructure (TEN-TELE), initiatives can be taken to promote expansion and modernisation of trans-European infrastructures for digital services and their common building-blocks and of broadband networks. The initiatives in the area of digital services have to be supported through procurement and/or grants, while the investments in broadband networks are to be supported by financial instruments which are to be open to additional contributions from private investors, Member States and contributions from other sources, including the European Structural and Investment Funds.

The regional Structural Funds programme in Upper Norrland is to contribute to regional projects and operations building capacity for and creating collaboration with the Connecting Europe Facility. Projects that collaborate or create synergies with other projects/programmes are therefore one of the principles for selection. See principles for project selection for priority axis 5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures, and its investment priority in Chapter 2.5.1. Further specific principles are described for project selection, such as projects that contribute to TEN-T or strengthen the links with TEN.

CAP

The EU's common agricultural policy consists of two pillars, where Pillar I contains market support and direct payments and Pillar II contains the rural development programme. Pillar I is dominated by direct support, which is largely decoupled from production and is paid on a per-hectare basis. The rural development programme and the single farm payment system together generate important support for rural development and agriculture. The agreement on single farm payments reached in 2013 has led to the introduction of several ways of targeting support at different groups of farmers. Important principles underpinning both work on the rural development programme and single farm payments are simplification, competitiveness and activity in rural areas, as well as high environmental benefit.

LIFE

LIFE is the EU's financial instrument for the environment and climate, and the European Commission annually allocates funding to projects in the Member States. In work towards strengthening cross-regional and cross-sectoral operations, LIFE fulfils a key function with the form of project known as integrated projects (IP). This project form is a new type of project introduced during the programming period 2014-2020 with the aim of creating synergies between the sector areas of the ESI Funds and the area of environment and climate through a larger type project, for example regional or multi-regional. These projects may have links to nature (including Natura 2000 administration), water, waste, air and climate (restriction of and adaptation to) which are focal areas for IP. The measures financed by the ESI Funds with links to the environment, climate change and sustainable use of resources may also complement the LIFE programme.

To be able to ensure synergies between the different funds and with integrated projects under LIFE, the dialogue between the authority responsible for LIFE — the Swedish Environmental Protection Agency — and the managing authorities for the ESI Funds is of key importance.

Creative Europe

The general aim of the EU's culture and media programme Creative Europe includes strengthening the competitiveness of the European cultural and creative sectors, smart growth and inclusive sustainable growth. The programme points to opportunities and needs for consistency and links to other relevant Union funding such as the European Regional Development Fund and the European Social Fund, as well as research and innovation programmes. It is therefore crucial to utilise the significance and potential of culture in Swedish regional development activity.

See Annex Tables and figures Upper Norrland for sections on transport infrastructure plans and linking to other ESI Funds.

The Rural Development Programme is to assist in extending deployment of broadband infrastructure in the form of local area networks in villages and smaller communities in rural areas, while the regional Structural Funds programme focuses on investments in interurban networks. Together, the two programmes can contribute to a good broadband infrastructure in the region's sparsely populated and rural areas all the way to the end-user.

9. EX-ANTE CONDITIONALITIES

9.1 Ex-ante conditionalities

Information on the assessment of the applicability and the fulfilment of ex-ante conditionalities (optional).

See table in annex.

Table 24: Applicable ex-ante conditionalities and assessment of their fulfilment

Ex-ante conditionality	Priority axes to which conditionality applies	Ex-ante conditionality fulfilled (Yes/No/Partially)
T.01.1 — Research and innovation: The existence of a national or regional smart specialisation strategy in line with the National Reform Program, to leverage private research and innovation expenditure, which complies with the features of well performing national or regional R&I systems.	1 — Strengthening research, technological development and innovation	Yes
T.02.1 — Digital growth: A strategic policy framework for digital growth to stimulate affordable, good quality and interoperable ICT enabled private and public services and increase uptake by citizens, including vulnerable groups, businesses and public administrations including cross border initiatives.	2 — Enhancing access to, and use and quality of, information and communication technologies	Yes
T.02.2 — Next Generation Network (NGN) Infrastructure: The existence of national or regional NGN Plans which take account of regional actions in order to reach the Union high speed Internet access targets, focusing on areas where the market fails to provide an open infrastructure at an affordable cost and of a quality in line with the Union competition and State aid rules, and to provide accessible services to vulnerable groups.	2 — Enhancing access to, and use and quality of, information and communication technologies	Yes
T.03.1 — Specific actions have been carried out to underpin the promotion of entrepreneurship taking into account the Small Business Act (SBA).	3 — Enhancing the competitiveness of SMEs	Yes

Ex-ante conditionality	Priority axes to which conditionality applies	Ex-ante conditionality fulfilled (Yes/No/Partially)
T.04.1 — Actions have been carried out to promote cost effective improvements of energy end use efficiency and cost effective investment in energy efficiency when constructing or renovating buildings.	4 — Supporting the shift towards a low-carbon economy in all sectors	Partially
T.07.1 — Transport: The existence of a comprehensive plan or plans or framework or frameworks for transport investment in accordance with the Member States’ institutional set up (including public transport at regional and local level) which supports infrastructure development and improves connectivity to the TEN-T comprehensive and core networks.	5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures	Yes
T.07.2 — Railway: The existence within the comprehensive transport plan or plans or framework or frameworks of a specific section on railway development in accordance with the Member States’ institutional set up (including concerning public transport at regional and local level) which supports infrastructure development and improves connectivity to the TEN-T comprehensive and core networks. The investments cover mobile assets, interoperability and capacity building.	5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures	Yes
T.07.3 — Other modes of transport, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure: the existence within the comprehensive transport plan or plans or framework or frameworks of a specific section on inland waterways and maritime transport, ports, multimodal links and airport infrastructure, which contribute to improving connectivity to the TEN-T comprehensive and core networks and to promoting sustainable regional and local mobility.	5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures	Yes
G.1 — The existence of administrative capacity for the implementation and application of Union anti-discrimination law and	1 — Strengthening research, technological development and innovation 2 — Enhancing access to, and use and	Yes

Ex-ante conditionality	Priority axes to which conditionality applies	Ex-ante conditionality fulfilled (Yes/No/Partially)
policy in the field of ESI Funds.	quality of, information and communication technologies 3 — Enhancing the competitiveness of SMEs 4 — Supporting the shift towards a low-carbon economy in all sectors 5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures	
G.2 — The existence of administrative capacity for the implementation and application of Union gender equality law and policy in the field of ESI Funds.	1 — Strengthening research, technological development and innovation 2 — Enhancing access to, and use and quality of, information and communication technologies 3 — Enhancing the competitiveness of SMEs 4 — Supporting the shift towards a low-carbon economy in all sectors 5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures	Yes
G.3 — The existence of administrative capacity for the implementation and application of the United Nations Convention on the rights of persons with disabilities (UNCRPD) in the field of ESI Funds in accordance with Council Decision 2010/48/EC.	1 — Strengthening research, technological development and innovation 2 — Enhancing access to, and use and quality of, information and communication technologies 3 — Enhancing the competitiveness of SMEs 4 — Supporting the shift towards a low-carbon economy in all sectors 5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures	Yes
G.4 — The existence of arrangements for the effective application of Union public procurement law in the field of the ESI Funds.	1 — Strengthening research, technological development and innovation 2 — Enhancing access to, and use and quality of, information and communication technologies 3 — Enhancing the competitiveness of SMEs 4 — Supporting the shift towards a low-carbon economy in all sectors	Yes

Ex-ante conditionality	Priority axes to which conditionality applies	Ex-ante conditionality fulfilled (Yes/No/Partially)
	5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures	
G.5 — The existence of arrangements for the effective application of Union State aid rules in the field of the ESI Funds.	1 — Strengthening research, technological development and innovation 2 — Enhancing access to, and use and quality of, information and communication technologies 3 — Enhancing the competitiveness of SMEs 4 — Supporting the shift towards a low-carbon economy in all sectors 5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures	Yes
G.6 — The existence of arrangements for the effective application of Union environmental legislation related to EIA and SEA.	1 — Strengthening research, technological development and innovation 2 — Enhancing access to, and use and quality of, information and communication technologies 3 — Enhancing the competitiveness of SMEs 4 — Supporting the shift towards a low-carbon economy in all sectors 5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures	Yes
G.7 — The existence of a statistical basis necessary to undertake evaluations to assess the effectiveness and impact of the programmes. The existence of a system of result indicators necessary to select actions, which most effectively contribute to desired results, to monitor progress towards results and to undertake impact evaluation.	1 — Strengthening research, technological development and innovation 2 — Enhancing access to, and use and quality of, information and communication technologies 3 — Enhancing the competitiveness of SMEs 4 — Supporting the shift towards a low-carbon economy in all sectors 5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures	Yes

Ex-ante conditionality	Criteria	Criteria fulfilled (Yes/No)	Reference	Explanation
T.01.1 — Research and innovation: The existence of a national or regional smart specialisation strategy in line with the National Reform Program, to leverage private research and innovation expenditure, which complies with the features of well performing national or regional R&I systems.	1 — A national or regional smart specialisation strategy is in place that:	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.01.1 — Research and innovation: The existence of a national or regional smart specialisation strategy in line with the National Reform Program, to leverage private research and innovation expenditure, which complies with the features of well performing national or regional R&I systems.	2 — is based on a SWOT or similar analysis to concentrate resources on a limited set of research and innovation priorities;	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.01.1 — Research and innovation: The existence of a national or regional smart specialisation strategy in line with the National Reform Program, to leverage private research and innovation expenditure, which complies with the features of well performing national or regional R&I systems.	3 — outlines measures to stimulate private RTD investment;	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.

Ex-ante conditionality	Criteria	Criteria fulfilled (Yes/No)	Reference	Explanation
T.01.1 — Research and innovation: The existence of a national or regional smart specialisation strategy in line with the National Reform Program, to leverage private research and innovation expenditure, which complies with the features of well performing national or regional R&I systems.	4 — contains a monitoring mechanism.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.01.1 — Research and innovation: The existence of a national or regional smart specialisation strategy in line with the National Reform Program, to leverage private research and innovation expenditure, which complies with the features of well performing national or regional R&I systems.	5 — A framework outlining available budgetary resources for research and innovation has been adopted.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.02.1 — Digital growth: A strategic policy framework for digital growth to stimulate affordable, good quality and interoperable ICT enabled private and public services and increase uptake by citizens, including vulnerable groups, businesses and public administrations including cross border initiatives.	1 — A strategic policy framework for digital growth, for instance, within the national or regional smart specialisation strategy is in place that contains:	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.02.1 — Digital growth: A strategic policy framework for digital growth to stimulate affordable, good quality and interoperable ICT enabled private and	2 — budgeting and prioritisation of actions through a SWOT or similar analysis consistent with the Scoreboard	Yes	See annex ‘Ex-ante conditionalities Upper	See annex ‘Ex-ante conditionalities Upper Norrland’.

Ex-ante conditionality	Criteria	Criteria fulfilled (Yes/No)	Reference	Explanation
public services and increase uptake by citizens, including vulnerable groups, businesses and public administrations including cross border initiatives.	of the Digital Agenda for Europe;		Norrland’.	
T.02.1 — Digital growth: A strategic policy framework for digital growth to stimulate affordable, good quality and interoperable ICT enabled private and public services and increase uptake by citizens, including vulnerable groups, businesses and public administrations including cross border initiatives.	3 — an analysis of balancing support for demand and supply of ICT should have been conducted;	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.02.1 — Digital growth: A strategic policy framework for digital growth to stimulate affordable, good quality and interoperable ICT enabled private and public services and increase uptake by citizens, including vulnerable groups, businesses and public administrations including cross border initiatives.	4 — indicators to measure progress of interventions in areas such as digital literacy, e-inclusion, e-accessibility, and progress of e-health within the limits of Article 168 TFEU which are aligned, where appropriate, with existing relevant sectoral Union, national or regional strategies;	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.02.1 — Digital growth: A strategic policy framework for digital growth to stimulate affordable, good quality and interoperable ICT enabled private and public services and increase uptake by citizens, including vulnerable groups, businesses and public administrations including cross border initiatives.	5 — assessment of needs to reinforce ICT capacity-building.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.

Ex-ante conditionality	Criteria	Criteria fulfilled (Yes/No)	Reference	Explanation
T.02.2 — Next Generation Network (NGN) Infrastructure: The existence of national or regional NGN Plans which take account of regional actions in order to reach the Union high speed Internet access targets, focusing on areas where the market fails to provide an open infrastructure at an affordable cost and of a quality in line with the Union competition and State aid rules, and to provide accessible services to vulnerable groups.	1 — A national or regional NGN Plan is in place that contains:	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.02.2 — Next Generation Network (NGN) Infrastructure: The existence of national or regional NGN Plans which take account of regional actions in order to reach the Union high speed Internet access targets, focusing on areas where the market fails to provide an open infrastructure at an affordable cost and of a quality in line with the Union competition and State aid rules, and to provide accessible services to vulnerable groups.	2 — a plan of infrastructure investments based on an economic analysis taking account of existing private and public infrastructures and planned investments;	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.02.2 — Next Generation Network (NGN) Infrastructure: The existence of national or regional NGN Plans which take account of regional actions in order to reach the Union high speed Internet access targets, focusing on areas where the market fails to provide	3 — sustainable investment models that enhance competition and provide access to open, affordable, quality and future-proof infrastructure and services;	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.

Ex-ante conditionality	Criteria	Criteria fulfilled (Yes/No)	Reference	Explanation
an open infrastructure at an affordable cost and of a quality in line with the Union competition and State aid rules, and to provide accessible services to vulnerable groups.				
T.02.2 — Next Generation Network (NGN) Infrastructure: The existence of national or regional NGN Plans which take account of regional actions in order to reach the Union high speed Internet access targets, focusing on areas where the market fails to provide an open infrastructure at an affordable cost and of a quality in line with the Union competition and State aid rules, and to provide accessible services to vulnerable groups.	4 — measures to stimulate private investment.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.03.1 — Specific actions have been carried out to underpin the promotion of entrepreneurship taking into account the Small Business Act (SBA).	1 — The specific actions are: measures have been put in place with the objective of reducing the time and cost involved in setting-up a business taking account of the targets of the SBA;	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.03.1 — Specific actions have been carried out to underpin the promotion of entrepreneurship taking into account the Small Business Act (SBA).	2 — The specific actions are: measures have been put in place with the objective of reducing the time needed to get licenses and permits to take up and perform the specific activity of an enterprise taking account of the targets of the SBA;	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.

Ex-ante conditionality	Criteria	Criteria fulfilled (Yes/No)	Reference	Explanation
T.03.1 — Specific actions have been carried out to underpin the promotion of entrepreneurship taking into account the Small Business Act (SBA).	3 — The specific actions are: mechanism is in place to monitor the implementation of the measures of the SBA which have been put in place and assess the impact on SMEs.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.04.1 — Actions have been carried out to promote cost effective improvements of energy end use efficiency and cost effective investment in energy efficiency when constructing or renovating buildings.	1 — The actions are: measures to ensure minimum requirements are in place related to the energy performance of buildings consistent with Article 3, Article 4 and Article 5 of Directive 2010/31/EU of the European Parliament and of the Council;	No	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.04.1 — Actions have been carried out to promote cost effective improvements of energy end use efficiency and cost effective investment in energy efficiency when constructing or renovating buildings.	2 — The actions are: measures necessary to establish a system of certification of the energy performance of buildings consistent with Article 11 of Directive 2010/31/EU;	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.04.1 — Actions have been carried out to promote cost effective improvements of energy end use efficiency and cost effective investment in energy efficiency when constructing or renovating buildings.	3 — The actions are: measures to ensure strategic planning on energy efficiency, consistent with Article 3 of Directive 2012/27/EU of the European Parliament and of the Council;	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.04.1 — Actions have been carried out to promote cost effective improvements of energy end use efficiency and cost effective	4 — The actions are: measures consistent with Article 13 of Directive 2006/32/EC of the European Parliament and of the Council on energy end-use	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.

Ex-ante conditionality	Criteria	Criteria fulfilled (Yes/No)	Reference	Explanation
investment in energy efficiency when constructing or renovating buildings.	efficiency and energy services to ensure the provision to final customers of individual meters in so far as it is technically possible, financially reasonable and proportionate in relation to the potential energy savings.			
T.07.1 — Transport: The existence of a comprehensive plan or plans or framework or frameworks for transport investment in accordance with the Member States’ institutional set up (including public transport at regional and local level) which supports infrastructure development and improves connectivity to the TEN-T comprehensive and core networks.	1 — The existence of a comprehensive transport plan or plans or framework or frameworks for transport investment which complies with legal requirements for strategic environmental assessment and sets out:	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.07.1 — Transport: The existence of a comprehensive plan or plans or framework or frameworks for transport investment in accordance with the Member States’ institutional set up (including public transport at regional and local level) which supports infrastructure development and improves connectivity to the TEN-T comprehensive and core networks.	2 — the contribution to the single European Transport Area consistent with Article 10 of Regulation (EU) No .../2013 of the European Parliament and of the Council, including priorities for investments in:	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.07.1 — Transport: The existence of a comprehensive plan or plans or framework or frameworks for transport investment in accordance	3 — the core TEN-T network and the comprehensive network where investment from the ERDF and the Cohesion Fund is envisaged; and	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.

Ex-ante conditionality	Criteria	Criteria fulfilled (Yes/No)	Reference	Explanation
with the Member States' institutional set up (including public transport at regional and local level) which supports infrastructure development and improves connectivity to the TEN-T comprehensive and core networks.				
T.07.1 — Transport: The existence of a comprehensive plan or plans or framework or frameworks for transport investment in accordance with the Member States' institutional set up (including public transport at regional and local level) which supports infrastructure development and improves connectivity to the TEN-T comprehensive and core networks.	4 — secondary connectivity;	Yes	See annex 'Ex-ante conditionalities Upper Norrland'.	See annex 'Ex-ante conditionalities Upper Norrland'.
T.07.1 — Transport: The existence of a comprehensive plan or plans or framework or frameworks for transport investment in accordance with the Member States' institutional set up (including public transport at regional and local level) which supports infrastructure development and improves connectivity to the TEN-T comprehensive and core networks.	5 — a realistic and mature pipeline for projects for which support from the ERDF and the Cohesion Fund is envisaged;	Yes	See annex 'Ex-ante conditionalities Upper Norrland'.	See annex 'Ex-ante conditionalities Upper Norrland'.
T.07.1 — Transport: The existence of a comprehensive plan or plans or framework or frameworks for transport investment in accordance	6 — Measures to ensure the capacity of intermediary bodies and beneficiaries to deliver the project pipeline.	Yes	See annex 'Ex-ante conditionalities Upper Norrland'.	See annex 'Ex-ante conditionalities Upper Norrland'.

Ex-ante conditionality	Criteria	Criteria fulfilled (Yes/No)	Reference	Explanation
with the Member States' institutional set up (including public transport at regional and local level) which supports infrastructure development and improves connectivity to the TEN-T comprehensive and core networks.				
T.07.2 — Railway: The existence within the comprehensive transport plan or plans or framework or frameworks of a specific section on railway development in accordance with the Member States' institutional set up (including concerning public transport at regional and local level) which supports infrastructure development and improves connectivity to the TEN-T comprehensive and core networks. The investments cover mobile assets, interoperability and capacity building.	1 — The existence of a section on railway development within the transport plan or plans or framework or frameworks as set out above which complies with legal requirements for strategic environmental assessment (SEA) and sets out a realistic and mature project pipeline (including a timetable and budgetary framework);	Yes	See annex 'Ex-ante conditionalities Upper Norrland'.	See annex 'Ex-ante conditionalities Upper Norrland'.
T.07.2 — Railway: The existence within the comprehensive transport plan or plans or framework or frameworks of a specific section on railway development in accordance with the Member States' institutional set up (including concerning public transport at regional and local level) which supports infrastructure development and improves connectivity to the TEN-T	2 — Measures to ensure the capacity of intermediary bodies and beneficiaries to deliver the project pipeline.	Yes	See annex 'Ex-ante conditionalities Upper Norrland'.	See annex 'Ex-ante conditionalities Upper Norrland'.

Ex-ante conditionality	Criteria	Criteria fulfilled (Yes/No)	Reference	Explanation
comprehensive and core networks. The investments cover mobile assets, interoperability and capacity building.				
T.07.3 — Other modes of transport, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure: the existence within the comprehensive transport plan or plans or framework or frameworks of a specific section on inland waterways and maritime transport, ports, multimodal links and airport infrastructure, which contribute to improving connectivity to the TEN-T comprehensive and core networks and to promoting sustainable regional and local mobility.	1 — The existence of a section on inland-waterways and maritime transport, ports, multimodal links and airport infrastructure within the transport plan or plans or framework or frameworks which:	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.07.3 — Other modes of transport, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure: the existence within the comprehensive transport plan or plans or framework or frameworks of a specific section on inland waterways and maritime transport, ports, multimodal links and airport infrastructure, which contribute to improving connectivity to the TEN-T comprehensive and core networks and to promoting sustainable regional and local mobility.	2 — complies with legal requirements for strategic environmental assessment;	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.

Ex-ante conditionality	Criteria	Criteria fulfilled (Yes/No)	Reference	Explanation
T.07.3 — Other modes of transport, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure: the existence within the comprehensive transport plan or plans or framework or frameworks of a specific section on inland waterways and maritime transport, ports, multimodal links and airport infrastructure, which contribute to improving connectivity to the TEN-T comprehensive and core networks and to promoting sustainable regional and local mobility.	3 — sets out a realistic and mature project pipeline (including a timetable and budgetary framework);	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
T.07.3 — Other modes of transport, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure: the existence within the comprehensive transport plan or plans or framework or frameworks of a specific section on inland waterways and maritime transport, ports, multimodal links and airport infrastructure, which contribute to improving connectivity to the TEN-T comprehensive and core networks and to promoting sustainable regional and local mobility.	4 — Measures to ensure the capacity of intermediary bodies and beneficiaries to deliver the project pipeline.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
G.1 — The existence of administrative capacity for the implementation and application of Union anti-	1 — Arrangements in accordance with the institutional and legal framework of Member States for the involvement of	Yes	See annex ‘Ex-ante conditionalities Upper	See annex ‘Ex-ante conditionalities Upper Norrland’.

Ex-ante conditionality	Criteria	Criteria fulfilled (Yes/No)	Reference	Explanation
discrimination law and policy in the field of ESI Funds.	bodies responsible for the promotion of equal treatment of all persons throughout the preparation and implementation of programmes, including the provision of advice on equality in ESI Fund-related activities.		Norrland’.	
G.1 — The existence of administrative capacity for the implementation and application of Union anti-discrimination law and policy in the field of ESI Funds.	2 — Arrangements for training for staff of the authorities involved in the management and control of the ESI Funds in the fields of Union anti-discrimination law and policy.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
G.2 — The existence of administrative capacity for the implementation and application of Union gender equality law and policy in the field of ESI Funds.	1 — Arrangements in accordance with the institutional and legal framework of Member States for the involvement of bodies responsible for gender equality throughout the preparation and implementation of programmes, including the provision of advice on gender equality in ESI Fund-related activities.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
G.2 — The existence of administrative capacity for the implementation and application of Union gender equality law and policy in the field of ESI Funds.	2 — Arrangements for training for staff of the authorities involved in the management and control of the ESI Funds in the fields of Union gender equality law and policy as well as on gender mainstreaming.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
G.3 — The existence of administrative capacity for the implementation and application of the United Nations	1 — Arrangements in accordance with the institutional and legal framework of Member States for the consultation and	Yes	See annex ‘Ex-ante conditionalities Upper	See annex ‘Ex-ante conditionalities Upper Norrland’.

Ex-ante conditionality	Criteria	Criteria fulfilled (Yes/No)	Reference	Explanation
Convention on the rights of persons with disabilities (UNCRPD) in the field of ESI Funds in accordance with Council Decision 2010/48/EC.	involvement of bodies in charge of protection of rights of persons with disabilities or representative organisations of persons with disabilities and other relevant stakeholders throughout the preparation and implementation of programmes.		Norrland’.	
G.3 — The existence of administrative capacity for the implementation and application of the United Nations Convention on the rights of persons with disabilities (UNCRPD) in the field of ESI Funds in accordance with Council Decision 2010/48/EC.	2 — Arrangements for training for staff of the authorities involved in the management and control of the ESI Funds in the fields of applicable Union and national disability law and policy, including accessibility and the practical application of the UNCRPD as reflected in Union and national legislation, as appropriate.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
G.3 — The existence of administrative capacity for the implementation and application of the United Nations Convention on the rights of persons with disabilities (UNCRPD) in the field of ESI Funds in accordance with Council Decision 2010/48/EC.	3 — Arrangements to ensure monitoring of the implementation of Article 9 of the UNCRPD in relation to the ESI Funds throughout the preparation and the implementation of the programmes.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
G.4 — The existence of arrangements for the effective application of Union public procurement law in the field of the ESI Funds.	1 — Arrangements for the effective application of Union public procurement rules through appropriate mechanisms.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.

Ex-ante conditionality	Criteria	Criteria fulfilled (Yes/No)	Reference	Explanation
G.4 — The existence of arrangements for the effective application of Union public procurement law in the field of the ESI Funds.	2 — Arrangements which ensure transparent contract award procedures.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
G.4 — The existence of arrangements for the effective application of Union public procurement law in the field of the ESI Funds.	3 — Arrangements for training and dissemination of information for staff involved in the implementation of the ESI Funds.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
G.4 — The existence of arrangements for the effective application of Union public procurement law in the field of the ESI Funds.	4 — Arrangements to ensure administrative capacity for implementation and application of Union public procurement rules.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
G.5 — The existence of arrangements for the effective application of Union State aid rules in the field of the ESI Funds.	1 — Arrangements for the effective application of Union State aid rules.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
G.5 — The existence of arrangements for the effective application of Union State aid rules in the field of the ESI Funds.	2 — Arrangements for training and dissemination of information for staff involved in the implementation of the ESI Funds.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.

Ex-ante conditionality	Criteria	Criteria fulfilled (Yes/No)	Reference	Explanation
G.5 — The existence of arrangements for the effective application of Union State aid rules in the field of the ESI Funds.	3 — Arrangements to ensure administrative capacity for implementation and application of Union State aid rules.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
G.6 — The existence of arrangements for the effective application of Union environmental legislation related to EIA and SEA.	1 — Arrangements for the effective application of Directive 2011/92/EU of the European Parliament and of the Council (EIA) and of Directive 2001/42/EC of the European Parliament and of the Council (SEA).	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
G.6 — The existence of arrangements for the effective application of Union environmental legislation related to EIA and SEA.	2 — Arrangements for training and dissemination of information for staff involved in the implementation of the EIA and SEA Directives.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
G.6 — The existence of arrangements for the effective application of Union environmental legislation related to EIA and SEA.	3 — Arrangements to ensure sufficient administrative capacity.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
G.7 — The existence of a statistical basis necessary to undertake evaluations to assess the effectiveness and impact of the programmes. The existence of a system of result indicators necessary to select actions, which most effectively contribute to	1 — Arrangements for timely collection and aggregation of statistical data with the following elements are in place: the identification of sources and mechanisms to ensure statistical validation.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.

Ex-ante conditionality	Criteria	Criteria fulfilled (Yes/No)	Reference	Explanation
desired results, to monitor progress towards results and to undertake impact evaluation.				
G.7 — The existence of a statistical basis necessary to undertake evaluations to assess the effectiveness and impact of the programmes. The existence of a system of result indicators necessary to select actions, which most effectively contribute to desired results, to monitor progress towards results and to undertake impact evaluation.	2 — Arrangements for timely collection and aggregation of statistical data with the following elements are in place: arrangements for publication and public availability of aggregated data.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
G.7 — The existence of a statistical basis necessary to undertake evaluations to assess the effectiveness and impact of the programmes. The existence of a system of result indicators necessary to select actions, which most effectively contribute to desired results, to monitor progress towards results and to undertake impact evaluation.	3 — An effective system of result indicators including: the selection of result indicators for each programme providing information on what motivates the selection of policy actions financed by the programme.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
G.7 — The existence of a statistical basis necessary to undertake evaluations to assess the effectiveness and impact of the programmes. The existence of a system of result indicators necessary to select actions, which most effectively contribute to	4 — An effective system of result indicators including: the establishment of targets for these indicators.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.

Ex-ante conditionality	Criteria	Criteria fulfilled (Yes/No)	Reference	Explanation
desired results, to monitor progress towards results and to undertake impact evaluation.				
G.7 — The existence of a statistical basis necessary to undertake evaluations to assess the effectiveness and impact of the programmes. The existence of a system of result indicators necessary to select actions, which most effectively contribute to desired results, to monitor progress towards results and to undertake impact evaluation.	5 — An effective system of result indicators including: the consistency of each indicator with the following requisites: robustness and statistical validation, clarity of normative interpretation, responsiveness to policy, timely collection of data.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.
G.7 — The existence of a statistical basis necessary to undertake evaluations to assess the effectiveness and impact of the programmes. The existence of a system of result indicators necessary to select actions, which most effectively contribute to desired results, to monitor progress towards results and to undertake impact evaluation.	6 — Procedures in place to ensure that all operations financed by the programme adopt an effective system of indicators.	Yes	See annex ‘Ex-ante conditionalities Upper Norrland’.	See annex ‘Ex-ante conditionalities Upper Norrland’.

9.2 Description of actions to fulfil ex-ante conditionalities, responsible bodies and timetable

Table 25: Actions to fulfil applicable general ex-ante conditionalities

General ex-ante conditionality	Criteria not fulfilled	Actions to be taken	Deadline (date)	Bodies responsible
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Table 26: Actions to fulfil applicable thematic ex-ante conditionalities

Thematic ex-ante conditionality	Criteria not fulfilled	Actions to be taken	Deadline (date)	Bodies responsible
T.04.1 — Actions have been carried out to promote cost effective improvements of energy end use efficiency and cost effective investment in energy efficiency when constructing or renovating buildings.	1 — The actions are: measures to ensure minimum requirements are in place related to the energy performance of buildings consistent with Article 3, Article 4 and Article 5 of Directive 2010/31/EU of the European Parliament and of the Council;	In the response to formal notification of the implementation of Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (Case No 2013/2134), it was stated that the National Board of Housing, Building and Planning is to adopt a clarifying formulation in regulations BFS 2011:6, section 9. The proposal for clarification is currently being addressed in the Board's ongoing process for revision of BFS 2011:6 and is expected to enter into force on 1 February 2015.	01-Feb-2015	National Board of Housing, Building and Planning

10. REDUCTION OF ADMINISTRATIVE BURDEN FOR BENEFICIARIES

Summary of the assessment of the administrative burden for beneficiaries and, where necessary, the actions planned accompanied by an indicative timeframe to reduce administrative burden.

Applying for, operating, reporting and concluding a project with funding from a Structural Funds programme in the framework of the European Regional Development Fund demands good administrative skills and capacity. The administrative burden of operating a project is experienced differently by different beneficiaries, which may be explained by factors such as their own administrative procedures, previous experience of Structural Funds projects, the focus and complexity of the project, etc.

In dialogues with beneficiaries and through surveys that have been conducted, the Swedish Agency for Economic and Regional Growth (managing authority) notes that the beneficiaries generally regard the administrative burden in running a Structural Funds project as heavy.

The Swedish National Audit Office has reviewed the extent to which the managing authorities for the ERDF programmes and the ESF programme have exploited the opportunities for simplification offered during the programming period 2007-2013. In its report 'Mer att förenkla! Administration i strukturfondsprojekt' ('More to simplify! Administration in Structural Funds projects') (RiR 2012:22), the Swedish National Audit Office notes that the beneficiaries often comment that the administrative requirements make it more difficult to implement the projects by taking the focus away from the core activity and making it difficult to work with innovative ideas and methods.

During the autumn of 2012, the Swedish Agency for Economic and Regional Growth initiated cooperation with the Swedish ESF Council (managing authority for the national ESF programme) to make use of the opportunities presented by the proposed Structural Funds regulation for the programming period 2014-2020 with regard to simplified project administration for beneficiaries. In February 2013, cooperation on the simplification measures was broadened by the Swedish Board of Agriculture, which is the managing authority for the European Agricultural Fund for Rural Development and the European Marine and Fisheries Fund, joining in. The areas in which cooperation between the funds with the aim of reducing the administrative burden for beneficiaries has started are principally payroll costs and indirect costs.

Ahead of the programming period 2014-2020, the Swedish Agency for Economic and Regional Growth has actively worked on revising all stages of administration and implementation of the programmes. The case process which contains everything from information about the programmes and their contents to application procedure, approval of projects, project reporting, follow-up and finally project closure, are an important part of this overhaul. The work has been based on experience gained in own work but also experience obtained through participatory research and through various audit operations. The work has resulted, among other things, in:

- clearer and more readily accessible information for beneficiaries
- a new and improved electronic application, 'My Application'
- simplified internal work processes
- simpler reporting for beneficiaries.

Indicative timetable

Table 32

Measure

Estimated end date

Clear and readily available to beneficiaries

January 2014

A new and improved electronic application, 'My Application'

February 2014

Simplified work processes

Programme start/autumn 2014

Simpler reporting for beneficiaries

Programme start/autumn 2014

11. HORIZONTAL PRINCIPLES

11.1 Sustainable development

Description of specific actions to take into account environmental protection requirements, resource efficiency, climate change mitigation and adaptation, disaster resilience and risk prevention and management, in the selection of operations.

Sustainable development means meeting the needs of the present generation without compromising the ability of future generations to meet their needs. It is an overall objective of the EU and pervades all Union politics and activities.

Better environment, gender equality, equal treatment and non-discrimination, the three horizontal criteria, are drivers of sustainable growth by focusing on smart, inclusive and sustainable solutions that can enhance innovative capability and reduce consumption of resources and energy. In connection with implementation of the programme, the horizontal criteria are to be used as tools to improve work and make it more effective.

Climate change is one of the greatest challenges of our time and requires regional, national and global solutions to reduce further climate impact and to adapt society to a changed climate. In trade and industry, there is need for both structural change and increased resource efficiency, i.e. reduced use of energy, raw materials and ecosystem resources. The Swedish Government firmly believes that the climate, environmental and energy challenges represent an opportunity for the development of technology, products and services in all sectors. Business opportunities are created for Swedish companies with the growing global demand for sustainable and resource-efficient goods and services.

The goal of Swedish environmental policy is to be able to hand over to the next generation a society in which the great environmental problems have been solved, without causing increased environmental and health problems outside the borders of Sweden. Regions and municipalities have great responsibility to contribute actively to what is known as the system of environmental objectives and for the environmental quality objectives to be met.

The switch to a green economy means developing sustainable goods, services and production systems, and can consequently reduce the environmental impact regionally, nationally and globally. This switch can also contribute to environmentally driven business development in all sectors and consequently increased entrepreneurship, export opportunities and employment in both urban and rural areas. It is therefore important to promote the development of small and medium-sized enterprises wishing to convert to sustainable enterprise and also to regard this as a competitive advantage.

Evaluations point to needs to operationalise the horizontal criteria for specific activities and goals (linked to regional challenges) in the projects within the programme, so that they are not reduced to something that is added afterwards.

Knowledge of how the three horizontal criteria are to be integrated into the preparation, goals and implementation of projects is a key factor. The criteria are to be used as levers to achieve better outcomes from the projects, i.e. improve the possibility of solving the

regional problems identified by the projects and contribute to sustainable growth. All projects under the programme have to take account of the same horizontal criteria. The managing authority has to assist in this work.

Classification criteria

A common tool for all regional Structural Funds programmes for investments in growth and employment is the classification criteria. These ensure that all horizontal criteria are taken into account in all projects, while at the same time contributing to information being stored on the projects which, in a later stage, facilitates follow-up and evaluation. The horizontal classification criteria can also be used as a tool in dialogue with those who apply for aid and those who are granted aid. The classification is made in the preparation of each project application. To make the classification criteria specific with regard to a better environment, it has to be examined whether the environmental quality objectives can be used in the assessment. The horizontal criteria are then followed up continuously during the project period.

Better environment

The environment is used actively as a tool with which to achieve the goals and results of the project.

The project fulfils all the items below:

- The background and project description contains an account of how the environment is used as a tool/resource with which to attain the purpose and objective of the project.
- The activities and costs of the project show clearly how the environment is to be used as a tool in implementation.
- In the follow-up of the project, the project sponsor plans to show how the environment has been used as a tool to attain the objectives of the project and show what results have been achieved.

The environment is used partly as a tool with which to achieve the goals and results of the project.

The project fulfils two of the items below:

- The background and project description contains an account of how the environment is used as a tool/resource with which to attain the purpose and objective of the project.
- The activities and costs of the project show clearly how the environment is to be used as a tool in implementation.
- In the follow-up of the project, the project sponsor plans to show how the environment has been used as a tool to attain the objectives of the project and show what results have been achieved.

The environment is not used as a tool with which to achieve the goals and results of the project.

The project does not fulfil any of the items below:

- The background and project description contains an account of how the environment is used as a tool/resource with which to attain the purpose and objective of the project.
- The activities and costs of the project show clearly how the environment is to be used as a tool in implementation.
- In the follow-up of the project, the project sponsor plans to show how the environment has been used as a tool to attain the objectives of the project and show what results have been achieved.

Chapter 1 contains a description of the significance of these aspects in analysis of the region. A description of how these aspects are to be included in the operations is given for each priority axis in Chapter 2. The description of the issue is thus integrated into the programme.

11.2 Equal opportunities and non-discrimination

Description of specific actions to promote equal opportunities and prevent discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation during the preparation, design and implementation of the operational programme and in particular in relation to access to funding, taking account of the needs of the various target groups at risk of such discrimination and in particular the requirements for ensuring accessibility for persons with disabilities.

Non-discrimination means regarding people's differences as an asset, a tool that makes work towards sustainable growth more effective. The goal of integration policy is equal rights, obligations and opportunities for all, regardless of ethnic or cultural background. Inclusive regional growth means that the inhabitants of the region — regardless of gender, ethnicity, religion or other beliefs, disability, transgender identity or expression, sexual orientation or age — are all equally well placed to achieve influence and gain access to growth resources, i.e. are able to assist in and contribute towards regional growth activities on equal terms.

To improve competitiveness, regions benefit from utilising the innovative capacity and entrepreneurship of the whole population. Statistics show that persons born abroad start and run companies to a greater extent, have higher turnover in their enterprises and employ more people than entrepreneurs born within the country do. Those born abroad can also contribute to the internationalisation of business through contacts, knowledge of languages and knowledge of business opportunities in their countries of origin.

Companies and organisations wishing to enhance their innovative capability benefit from recruiting more widely and creating a less homogeneous workforce. Regional efforts aimed at fair recruitment, including highlighting employers who actively operate on the basis of a non-discrimination perspective as ambassadors, are significant. It is also important to bring to the fore and develop skills among inhabitants with a foreign

background and consequently to improve matching in the labour market and lower the entry thresholds. Excluded young people are a key target group.

Active regional efforts towards integration and non-discrimination can additionally contribute to sustainable growth by increasing the inward migration of persons born abroad with the skills in demand.

Evaluations point to needs to operationalise the horizontal criteria for specific activities and goals (linked to regional challenges) in the projects within the programme, so that they are not reduced to something that is added afterwards.

Knowledge of how the three horizontal criteria are to be integrated into the preparation, goals and implementation of projects is a key factor. The criteria are to be used as levers to achieve better outcomes from the projects, i.e. improve the possibility of solving the regional problems identified by the projects and contribute to sustainable growth. All projects under the programme have to take account of the same horizontal criteria. The managing authority has to assist in this work.

Classification criteria

A common tool for all regional Structural Funds programmes for investments in growth and employment is the classification criteria. These ensure that all horizontal criteria are taken into account in all projects, while at the same time contributing to information being stored on the projects which, in a later stage, facilitates follow-up and evaluation. The horizontal classification criteria can also be used as a tool in dialogue with those who apply for aid and those who are granted aid. The classification is made in the preparation of each project application. The horizontal criteria are then followed up continuously during the project period.

Equal treatment and non-discrimination

Equal opportunities and non-discrimination are used actively as a tool with which to achieve the goals and results of the project.

The project fulfils all the items below:

- The background and project description of the project contains an account of how equal opportunities and non-discrimination are used as a tool/resource with which to attain the purpose and objective of the project.
- The activities and costs of the project show clearly how equal opportunities and non-discrimination are to be used as a tool in implementation.
- In the follow-up of the project, the project sponsor plans to show how equal opportunities and non-discrimination have been used as a tool to attain the objectives of the project and show what results have been achieved.

Equal opportunities and non-discrimination are used partly as a tool with which to achieve the goals and results of the project.

The project fulfils two of the items below:

- The background and project description of the project contains an account of how equal opportunities and non-discrimination are used as a tool/resource with which to attain the purpose and objective of the project.
- The activities and costs of the project show clearly how equal opportunities and non-discrimination are to be used as a tool in implementation.
- In the follow-up of the project, the project sponsor plans to show how equal opportunities and non-discrimination have been used as a tool to attain the objectives of the project and show what results have been achieved.

Equal opportunities and non-discrimination are not used as a tool with which to achieve the goals and results of the project.

The project does not fulfil any of the items below:

- The background and project description of the project contains an account of how equal opportunities and non-discrimination are used as a tool/resource with which to attain the purpose and objective of the project.
- The activities and costs of the project show clearly how equal opportunities and non-discrimination are to be used as a tool in implementation.
- In the follow-up of the project, the project sponsor plans to show how equal opportunities and non-discrimination have been used as a tool to attain the objectives of the project and show what results have been achieved.

Chapter 1 of the programme contains a description of the significance of these aspects in analysis of the region. A description of how these aspects are to be included in the operations is given for each priority axis in Chapter 2. The description of the issue is thus integrated into the programme.

11.3 Equality between men and women

Description of contribution of the operational programme to the promotion of equality between men and women and, where appropriate, the arrangements to ensure the integration of the gender perspective at operational programme and operation level.

Gender equality, equal opportunities and non-discrimination as well as a better environment, the three horizontal criteria, are drivers of sustainable growth by focusing on smart, inclusive and sustainable solutions that can enhance innovative capability, maximise the utilisation of skills, human resources and entrepreneurship and reduce consumption of resources and energy. In connection with implementation of the programme, the horizontal criteria are to be used as tools to improve effectiveness of work towards sustainable growth.

The objective of gender equality policy is that women and men are to have the same power to shape society and their own lives, that is to say have the same rights and opportunities to be active citizens, take part in decision-making, education and paid employment and take the same responsibility for work in the home.

When women and men share power and influence in all aspects of community life, we will have a fairer and more democratic society.

Gender-equal regional growth means that women and men have the same prospects of achieving influence in regional work on growth and obtaining access to growth resources. Choosing gender equality in the planning and implementation of the regional Structural Funds programmes is primarily a matter of using gender equality as a way of achieving sustainable growth.

Some principal reasons why increased gender equality can lead to sustainable growth are that:

- Human resources are used more effectively if the labour market is gender-equal and less segregated by gender. This means, among other things, that the knowledge, skills and entrepreneurship of both women and men are put to optimum use, we gain more enterprises and better matching.
- Greater gender equality in the governance and development of the region increases social capital and participation, which can contribute to sustainable growth by attracting inward migration and counteracting outward migration. This is also a key factor for the supply of skills to the labour market.
- Gender equality improves the innovative capacity of enterprises and organisations, in part because work becomes more effective if both women and men take part in management, planning and implementation.

Evaluations point to the need to operationalise the horizontal criteria for specific activities and goals (linked to regional challenges) in the projects within the programme, so that they are not reduced to something that is added afterwards.

Knowledge of how the three horizontal criteria are to be integrated into the preparation, goals and implementation of projects is a key factor. The criteria are to be used as levers to achieve better outcomes from the projects, i.e. improve the possibility of solving the regional problems identified by the projects and contribute to sustainable growth. All projects under the programme have to take account of the same horizontal criteria. The managing authority has to assist in this work.

Classification criteria

A common tool for all regional Structural Funds programmes for investments in growth and employment is the classification criteria. These ensure that all horizontal criteria are taken into account in all projects, while at the same time contributing to information being stored on the projects which, in a later stage, facilitates follow-up and evaluation. The horizontal classification criteria can also be used as a tool in dialogue with those who apply for aid and those who are granted aid. The classification is made in the preparation of each project application. The horizontal criteria are then followed up continuously during the project period.

12. SEPARATE ELEMENTS

12.1 Major projects to be implemented during programming period

Table 27: List of major projects

Project	Planned notification/submission date (year, quarter)	Planned start of implementation (year, quarter)	Planned completion date (year, quarter)	Priority Axes / Investment Priorities

12.2 Performance framework of operational programme

Table 28: Performance framework by fund and category of region (summary table)

Priority axis	Fund	Category of region	Indicator or key implementation step	Measurement unit, where appropriate	Milestone for 2018			Final target (2023)		
					M	W	T	M	W	T
1 — Strengthening research, technological development and innovation	ERDF	More developed	Research, Innovation: Number of enterprises cooperating with research institutions	Enterprises			50			200.00
1 — Strengthening research, technological development and innovation	ERDF	More developed	Financial indicator	EUR			36 670 078			122 233 592.00
2 — Enhancing access to, and use and quality of, information and communication technologies	ERDF	More developed	Financial indicator	EUR			4 070 462			20 352 312.00

Priority axis	Fund	Category of region	Indicator or key implementation step	Measurement unit, where appropriate	Milestone for 2018			Final target (2023)		
					M	W	T	M	W	T
2 — Enhancing access to, and use and quality of, information and communication technologies	ERDF	More developed	Planned number of enterprises with access to broadband at speeds of at least 100 Mbps based on projects financed in the priority axis.	Number of enterprises			12			
2 — Enhancing access to, and use and quality of, information and communication technologies	ERDF	More developed	Number of enterprises added that have access to broadband at speeds of at least 100 Mbps	Number			0			350.00
3 — Enhancing the competitiveness of SMEs	ERDF	More developed	Productive investment: Number of enterprises receiving support	Enterprises			496			1 985.00
3 — Enhancing the competitiveness of SMEs	ERDF	More developed	Financial indicator	EUR			43 106 197			143 687 324.00
4 — Supporting the shift towards a low-carbon economy in all sectors	ERDF	More developed	Productive investment: Number of enterprises receiving non-financial support	Enterprises			75			300.00
4 — Supporting the shift towards a low-carbon economy in all sectors	ERDF	More developed	Financial indicator	EUR			6 960 491			23 201 636.00
5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures	ERDF	More developed	Financial indicator	EUR			29 307 329			97 691 098.00

Priority axis	Fund	Category of region	Indicator or key implementation step	Measurement unit, where appropriate	Milestone for 2018			Final target (2023)		
					M	W	T	M	W	T
5 — Promoting sustainable transport and removing bottlenecks in key network infrastructures	ERDF	More developed	Number of transport solutions	Transport solutions			5			20.00

12.3 Relevant partners involved in preparation of programme

The following partnerships have been involved in the programme-drafting process:

Västerbotten Development Council

The groupings of municipalities: Trekom, Region 8 and Umeåregionen (the Umeå Region)

Swedish Public Employment Service

Coompanion

Swedish Federation of Business Owners

Chamber of Commerce

Swedish Disability Federation (HSO)

Swedish Trade Union Confederation (LO)

Federation of Swedish Farmers (LRF)

Luleå University of Technology

County Adult Education Association

Länsbygderådet (County Rural Community Council)

Västerbotten County Administrative Board

North Sweden European Office

Swedish National Pensioners' Organisation (PRO)

Sami Parliament

Swedish Forest Agency

Geological Survey of Sweden (SGU)

Swedish University of Agricultural Sciences

Swedish Pensioners' Association (SPF)

Swedish Agency for Economic and Regional Growth

Swedish Confederation of Professional Employees (TCO)

Swedish Transport Administration

Umeå University

Västerbotten Sports Federation

Västerbotten County Council

Norrbotten Regional Partnership:

Swedish Public Employment Service

Swedish Federation of Business Owners in Norrbotten

Norrbotten Association of Local Authorities

Swedish Trade Union Confederation (LO)

Luleå University of Technology

County Administrative Board

Norrbotten County Council

Norrbotten Chamber of Commerce

Swedish Confederation of Professional Associations (SACO)

Sami Parliament

Swedish Transport Administration

In addition to the partnerships mentioned above, the following stakeholders have been involved in the programme-drafting process:

Municipalities:

Arjeplog Municipality

Arvidsjaur Municipality

Bjurholm Municipality

Boden Municipality

Dorotea Municipality

Gällivare Municipality

Haparanda Municipality

Jokkmokks Municipality

Kalix Municipality

Kiruna Municipality

Luleå Municipality

Lycksele Municipality

Malå Municipality

Nordmaling Municipality

Norsjö Municipality

Pajala Municipality

Piteå Municipality

Robertsfors Municipality

Skellefteå Municipality

Sorsele Municipality

Storuman Municipality

Umeå Municipality

Vilhelmina Municipality

Vindel Municipality

Vännäs Municipality

Åsele Municipality

Älvsbyn Municipality

Överkalix Municipality

Övertorneå Municipality:

Authorities/public-sector operators:

Swedish Public Employment Service

Eastern Norrbotten Association of Universities

Swedish Board of Agriculture

Norrbotten Association of Local Authorities

Lapplands Lärcentra (Lapland Learning Centres)

Leader Polaris

Luleå University of Technology

Norrbotten County Administrative Board

Västerbotten County Administrative Board

Mare Boreale

Norrbotten County Council

National Post and Telecom Agency

Region Västerbotten

Swedish National Heritage Board

National Archives

Sami Parliament

Swedish Forest Agency

National Agency for Education

Swedish University of Agricultural Sciences

Swedish ESF Council

Swedish Agency for Economic and Regional Growth

Swedish Transport Administration

Umeå University

Västerbotten County Council

Stakeholder organisations/associations:

Centre Party

Coompanion

Norden Association Norrbotten

Swedish Federation of Business Owners in Norrbotten

Swedish Federation of Business Owners in Västerbotten

Swedish Disability Federation (HSO)

Credit Guarantee Association North

Swedish Trade Union Confederation (LO)

Federation of Swedish Farmers (LRF) Norrbotten

Federation of Swedish Farmers (LRF) Västerbotten

Västerbotten County Regional Development Council

Norrbotten Sports Federation

Norrbotten Adult Education Federation

Norrbotten Chamber of Commerce

Moderate Party

Region 8

Swedish Confederation of Professional Employees (TCO)

Coordination Federation Skellefteå

Coordination Federation Umeå

National Union of the Swedish Sami People (SSR)

Västerbotten Adult Education Federation

Västerbotten Chamber of Commerce

Västerbotten Sports Federation

Other stakeholders/projects:

Acusticum Science Park

Almi Företagspartner Nord

Almi Invest

Apoidea AB

Argentis AB

Bergforsk

Boden Turism

Business Sweden

Business Sweden Norrbotten

Centek AB

Connect Norr

Creative Consulting/Lnab

Designlabland

Destination Skellefteå AB

EISCAT Scientific Association

National Federation of People's Parks and Community Centres

Generator Sverige

Hushållningssällskapet Rådgivning Nord AB

Innovation Västerbotten

Innovationssluss Norr

InternetBay AB

Invest in Norrbotten

IS Pite

IT Norrbotten AB

IUC Västerbotten AB

Kulturkraft HB

Leia företagshotell AB

Luleå Näringsliv AB

Nenet

Norrlandsfonden (Norrland Fund)

North Sweden European Office

Ottoson Consulting

Priorum/Winnet Norrbotten

ProcessIT Innovations

Progressum i Kiruna AB

Skebit AB

Skellefteå Kraft

Skogstekniska Klustret (Forest Technology Cluster)

SP Trä

Swerea Mefos

Geological Survey of Sweden Malå

Teknikens Hus (The Technology House)

The Interactive Institute Swedish ICT AB

Umeå Biotech Incubator

VIA Västerbotten

Västerbottens Turism (Västerbotten Tourism)

Documents

Document title	Document type	Document date	Local reference	Commission reference	Files	Sent date	Sent By
Ex-ante conditionalities Upper Norrland	Supplementary information	27-Oct-2014		Ares(2014)41422 64	Ex-ante conditionalities Upper Norrland	10-Dec-2014	nolofann
EIA Upper Norrland	Supplementary information	25 Nov-2014		Ares(2014)41422 64	EIA Upper Norrland	10-Dec-2014	nolofann
EIA Upper Norrland	Supplementary information	26-Feb-2014		Ares(2014)41422 64	EIA Upper Norrland	10-Dec-2014	nolofann
Tables and figures Upper Norrland	Supplementary information	27-Oct-2014		Ares(2014)41422 64	Tables and figures Upper Norrland	10-Dec-2014	nolofann