

Draft 4 of Interreg NEXT Kolarctic 2021-2027 Programme document

Content

1.	Joint programme strategy: main development challenges and policy responses.....	2
1.1	Programme area.....	2
1.2	Summary of main joint challenges	3
1.2.1.	Complementarities and synergies with other funding programmes.....	11
1.2.2.	Lessons learnt from past experiences	12
1.2.3.	Horizontal principles.....	13
1.3	Justification for the selection of policy objectives and the Interreg specific objectives	14
2.	Priorities.....	17
2.1	Priority 1: A skilled, smart and innovative Kolarctic area.....	17
2.1.1.	Specific objective 1.1. - Enhancing research and innovation capacities and the uptake of advanced technologies	17
2.1.2.	Specific objective 1.2. - Reaping the benefits of digitisation for citizens, companies and governments.....	21
2.2	Priority 2: A green, responsible and resilient Kolarctic area	24
2.2.1.	Specific objective 2.1. - Promoting climate change adaptation and disaster risk prevention, resilience, taking into account eco-system based approaches.....	24
2.2.2.	Specific objective 2.2. - Enhancing protection and preservation of nature, biodiversity and green infrastructure, including in urban areas, and reducing all forms of pollution.....	27
2.3	Priority 3: An attractive, vibrant and culturally diverse Kolarctic area	29
2.3.1.	Specific objective 3.1. - Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation.....	29
2.4	Priority 4: People-to-people cooperation for connected and active communities in Kolarctic area.....	32
2.4.1.	Specific objective 4.1. - People-to-people actions for increased trust	32
3.	Partnership in programming and programme implementation	34
4.	Communication and visibility.....	36
5.	Implementing provisions	37
6.	SWOT analysis of the draft Kolarctic 2021-2027 Territorial Analysis	39

1. Joint programme strategy: main development challenges and policy responses

1.1 Programme area

The area covered by the Interreg NEXT Kolarctic 2021-2027 Programme (hereafter Kolarctic Programme) comprises Lapland in Finland, Norrbotten in Sweden, Nordland, Troms and Finnmark in Norway and the Murmansk Region, the Arkhangelsk Region, and the Nenets Autonomous Okrug in Russia. The borders between two EU Member States, Norway and Russia are in this Kolarctic programme area. The joint border region between Norway, Finland, and Russia, which constitutes the Schengen border region towards Russia, is about 700 km long. The borders between Finland, Sweden and Norway are internal Schengen borders.

The programme area covers 1,2 million square kilometres. It is situated in the northernmost corner of Europe and is a good example of a peripheral region. Large land areas are mostly uninhabited (but often used for pastures by nomadic reindeer husbandries), and the distance and travel time between towns and villages can be long. However, the difference from other Arctic areas is that the Kolarctic area is sparsely, but still relatively highly populated, and characterised by presence of many towns and cities, universities, varied business and cultural life as well as well-developed infrastructure.



1.2 Summary of main joint challenges

Essence of Kolarctic Programme is cross-border cooperation, and each supported project must contribute to finding joint solutions to commonly recognised challenges. Each supported intervention must bring added value to regional development and cross-border collaboration.

Overarching approach to the implementation of the programme is sustainability. The projects have to be implemented in a sustainable way, and their results have to be sustainable. The principle of sustainability is taken on the base of the global sustainable development goals: when talking about sustainable development, the three dimensions of sustainability, economical, social and environmental, shall be taken into account.

There are multiple actors from local and regional to national and international levels who are involved in developing the Northern and Arctic areas. For recognising the joint challenges in the Kolarctic region, programmes, strategies and policies governing and directing the regional development processes have been studied.

Kolarctic Programme Area is covered by Arctic strategies and related policy-documents of the four participating countries¹, EU's Arctic Policy² as well as Baltic Sea Strategy and its Action Plan³. The recently updated national strategies of Arctic policies define countries' Arctic policy objectives, priority areas and planned activities. Peaceful and sustainable development, security, ensuring good living conditions, climate and environment, and international cooperation in the Arctic areas are common goals for all the countries. European Union is promoting common efforts to contribute to international cooperation, tackle the impact of climate change and environmental degradation, and support sustainable economic development in the Arctic region in its Joint Communication on a *stronger EU engagement for a peaceful, sustainable and prosperous Arctic*, and promoting connectivity and prosperity, as well as calling common action to safe the Baltic Sea in the Strategy for Baltic Sea Region and Action Plan for the Baltic Sea⁴.

Cooperation in Barents Euro-Arctic Region (Barents Cooperation) plays an important role in Kolarctic Programme Area. Since 1993 cooperation for stability and sustainable development of the region has

¹ Finland's Arctic policy strategy 2021; The Norwegian Government's Arctic Policy (White Paper): People, opportunities and Norwegian interests in the Arctic (2020); Russia's Arctic Strategy (2020) (Ukaz prezidenta Rossiiskoi Federatsii O strategii pazvitiia Arkitcheskoi zony Rossiiskoi Federatsii i obespecheniia hatsional'noi bezopasnosti na period do 2035 goda); Sweden's strategy for the Arctic region (2021);

² Joint Communication to the European Parliament and the Council – A stronger EU engagement for a peaceful, sustainable and prosperous Arctic (2021)

³ Communication from the commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the regions (2009)

⁴ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions concerning the European Union Strategy for the Baltic Sea Region and COMMISSION STAFF WORKING DOCUMENT EU Strategy for the Baltic Sea Region ACTION PLAN [COM(2009) 248 final]

been carried out on both intergovernmental (Euro-Arctic Council) and interregional (Barents Regional Council) levels. Thematic working groups, working under the Councils' mandates, are forums to exchange ideas and experiences and implement projects on their respective fields. Priority areas of Barents Regional Council's work are defined in the Barents Programme. Synergies between the Barents Cooperation and the Kolarctic programme are important for the development of the Kolarctic region. Good initiatives for cross-border projects are often developed within the Barents cooperation. Most project ideas are well anchored and relevant to the regional development. Hence, the Kolarctic programme often have the possibility to realize those initiatives.

In all documents and cooperation bodies, the demand for increasing international cooperation is recognised. Kolarctic Programme seeks to answer to this need by enabling cross-border activities that address the following challenges described in strategies and policies and recognised in the territorial analysis:

Climate change and rapid warming of arctic regions, which is posing a threat to fragile ecosystems, species, local communities, economic life and infrastructure. Risks related to increased flooding, wildfires and melting of permafrost require actions to minimize negative impacts to both human and natural environments. Melting ice makes the region more attractive and accessible for new economic activities and actors, which on the one hand means increased pressure and risks for natural environment, and on the other, new economic opportunities, that have to be carried out in sustainable manner. Climate change will likely have a severe negative effect on the reindeer husbandry which is a crucial part of the indigenous cultures.

Fragile nature and ecosystems are threatened by climate change and intensifying human activities and demands for the use of land and water/sea areas. A large share of emissions originates from outside of the Arctic area, but long-range transboundary pollution accumulates in Arctic ecosystems (Mercury, PCBs). Black carbon plays a big role in increased warming of snow-covered north. Action should be taken for eliminating local sources of emissions, and ensuring nuclear safety, reduction of litter and efficient and circular use of resources.

The Kolarctic area is surrounded by and connected with many **marine and water areas** that should be taken into consideration. Acidification, eutrophication, oil spill and other risks caused by for example increased shipping are threatening marine ecosystems. Increased temperature and supply of substances from rivers will affect the sensitive marine ecosystems all around the programme area. Due to interconnectedness of ecosystems, climate change impact and various human activities, a holistic approach is needed to overcome environmental challenges. More developed green and blue infrastructure can help in restoring and safeguarding ecosystems and ecosystem services.

Demography in the Arctic regions is challenging as the **population is ageing and declining**. Many young people leave the Northern regions, and attracting people to stay in and move to the north is difficult. Maintaining good service levels and securing equal access to services especially in sparsely populated and remote areas is challenging. Below-national average income level in many Northern regions, ageing population and demanding Arctic conditions are further associated with lower rates of physical and

mental well-being. Digitalisation and remote services are looked into as possible solutions that can increase accessibility and diversify services in education, health care and in social services. Availability of digital services and connections is not yet on equally good level. Declining population is also a challenge to labour markets, where there is a mismatch between skills supply and demand. Local communities and employers should provide for safe and good working and living conditions.

Climate change and its impact on northern livelihoods as well as economic restructuring can cause uncertainty. Art and culture are central contributors to the viability of Arctic areas, and development of community and meaningful identities. Accessible cultural services and support traditional cultures and endangered indigenous languages should be ensured.

The region is home for 2.8 million inhabitants. Development of **economic activities based on Arctic natural resources** is important for sustainable development of the region. These activities must be carried out in ecologically and socially sustainable manner. Access to labour force with needed skills is a challenge in certain sectors. The development and resilience of economy should be increased by diversification and higher value production in order to stand up global demand fluctuations and unexpected crisis, such as COVID 19. Arctic economies rely substantially on natural resources, and innovation for development and new sustainable processes, technologies and regulation are needed for their safe and responsible utilisation. In northern and sparsely populated areas, tourism provides an important source of income for locals. The sector also demonstrates good growth potential. Growing number of visitors and tourism services has also created a need to develop practices that take specific cultural context and fragile arctic nature better into account. Furthermore, tourism sector was hit hard by the COVID 19 pandemic, causing loss of income, bankruptcies and employment problems.

Overcoming long distances and arctic weather conditions pose high demands for transportation, communication, ICT and social infrastructure. Construction and maintenance of both transport and ICT infrastructure requires specialised know-how, technology and resources, and climate change is making the weather conditions even more unpredictable. Remote localities suffer from lack of transportation and communication infrastructure, and better coverage of ICT infrastructure is needed in the programme area. Access to internet is a prerequisite for development of remote services. In certain areas, worn out infrastructure and technology cause risks to both human wellbeing and natural environment.

There is a higher demand to strengthen research cooperation in producing information about climate change and human focused solutions to meet challenges posed by arctic conditions. Each country has a need for up-to-date research infrastructure. Cooperation between research institutions, business life, public sector and local communities is needed for productive and forward looking innovation and informed decision-making.

Complex foreign policy environment calls for building of mutual trust. National borders, long distances and language barriers make it somewhat difficult to exchange ideas and cooperate on local level.

People-to-people cooperation on across borders on topics of common interest should be encouraged in order to strengthen communities' initiative, provide new ideas, networks and well-being.

These identified joint challenges above offer the Kolarctic Programme the opportunity to seek new, innovative solutions to problems that people and nature in the area face. Based on the challenges and opportunities, the Kolarctic Programme has identified the following themes and joint needs to be addressed in the programme:

Priority 1: A skilled, smart and innovative Kolarctic area

Specific objective 1.1: Enhancing research and innovation capacities and the uptake of advanced technologies

The regions have identified priorities for the innovation promoting work through different processes including smart specialisation and national strategies work. Nevertheless, cross-border and cross-sectoral cooperation and collaboration are needed to ensure that synergies are reached and that the priorities are managed in an efficient way.

All regions have established, acknowledged universities, research and development networks. In addition, many of these host sector-specific research institutes focused on arctic conditions (e.g., climate, bio resources, blue and green economies, and environment). Many of these organizations act as important interregional collaboration platforms.

The knowledge of and about indigenous groups, is very valuable in the green transition, and specifically indigenous peoples' industries in interaction with nature and with ecological sustainability.

The businesses and industries have a great need for labour with the right skills and competence to be able to climb the value chain and help solve the arctic paradox on how to balance between sustainable use of more accessible natural resources in fragile environment. New technological solutions are needed for increasing efficiency of traditional economic activities.

The economies in the area tend to be focused on a few large industries. This makes the labour force as well as the regional economies sensitive to fluctuations in the international economy. There is a low level of local and regional investors as well as of knowledge-intensive business service companies.

Most universities in the programme region have strategies that address the developmental needs of the region and are in line with the regions' development strategies.

Specific indigenous peoples' industries are in interaction with nature and with ecological sustainability. There is a need for diversifying and developing the traditional livelihoods in the programme area.

The main industries in the region are linked to extraction and utilisation of natural resources. There is a

need of strengthening the innovation capacities of micro, small and medium sized businesses to increase the sustainability of the primary industries in the region and to generate new business models. Promoting innovative businesses for a sustainable growth and healthy blue and green environment could be one of solutions.

Specific objective 1.2: Reaping the benefits of digitisation for citizens, companies and governments

The development of the digital technologies has been significant in the last decade throughout the programme area. Nevertheless, the available digital possibilities have not been fully utilised. Digitalisation is one of the big transformational forces where traditional processes are being re-created.

Digital services can help alleviate challenges connected to sparse population and insufficient connectivity in the remote rural areas. Digitalisation also presents several new challenges, particularly those related to personal and cyber security. It is important to develop an understanding of and knowledge about those issues. The smart economic transformation relies heavily on the twin transition and the uptake of digitalisation throughout the society, and upgrading digital skills will be needed.

Digitalisation and digital tools present an opportunity to combine traditional and indigenous livelihoods and a modern lifestyle in new ways.

The geographical conditions and demographic development of the programme area make the potential of digitalisation in areas such as education, health and care systems particularly significant. Digitalisation enables broader service provision to remote and sparsely populated areas, thus making the programme area more attractive to stay and relocate to.

Digitalisation as an innovation enabler is another key challenge especially for the micro, small and medium sized enterprises and entrepreneurship. Traditional processes are being streamlined, and there is a shift to new, computer-driven businesses with value propositions and business models.

Limited sales market for goods and services of micro, small and medium sized enterprises (MSMEs) in the programme area should and could be addressed with the help of digital tools and solutions.

Small as well as some bigger culture and travel companies and public actors lack the financial and human resources to develop and offer digital solutions and experiences to end-users.

All regions host space-related development environments which can bring an added value for different industries. Most of the new industries and the businesses within them are also focusing on different digital solutions.

The role of digital skills is increasing in the professional life, as well as in our daily lives. The older generation is not benefitting from the digital leap of the society as much as the younger generations. Taking the age distribution in the programme area into account, a special focus should be paid to digital inclusion to guarantee equal access to digital services so that digitalisation will not decrease but increase social equality in the future.

A lack of digital infrastructure can cause young people to move from rural areas, increasing the demographic challenges of the area.

Digital services may enrich social life of the small communities in the hard-to-reach areas through e.g., online concerts, cultural life, cinemas.

Priority 2: A green, responsible and resilient Kolarctic area

Specific objective 2.1: Climate change adaptation and disaster risk prevention, resilience; taking into account eco-system based approaches

The impact of climate change in the Arctic region is rapidly affecting the terms of life of inhabitants in the region. The changes can already be seen in the distribution of plant and animal species, snow and ice cover and extreme phenomena such as floods and droughts. Climate change affects the environment in many ways and will continue to further impact the living conditions, the human activities, and the well-being of the population in the region. Since climate change will severely affect the reindeer husbandry, the situation for indigenous people and for their livelihoods and culture will become very vulnerable. Because of the climate change, the risk of severe flooding is increasing in the whole Barents area. River valleys are traditional places for settlements in all northern areas, whereby the risk of flood damage will be more obvious in the future.

Arctic wildfires have become a cause for concern in recent years, with fires becoming more widespread and persistent in 2019 and 2020. Nearly half the world's peatland-stored carbon lies along the Arctic Circle. Peatlands are the most carbon-dense ecosystems on Earth. They have historically been frozen but are expected to thaw as the planet warms, which would make them more vulnerable to wildfires.

The combination of wildfires and permafrost thaw can cause loss of life, landslides, floods, and coastal erosion threatening Arctic communities, infrastructure, and wildlife. The wildfires in the Arctic can burn underground for years, thawing permafrost and releasing huge amounts of carbon into the atmosphere, creating feedback loops resulting in accelerated warming and more thawing permafrost. It is especially important to share knowledge on the causes of different natural risks such as changes in climate and land use.

The climate change consequences are especially notable in the Northern areas of the world. The climate change causes increasing winter temperatures, lengthen the off-season periods, thereby increasing the frequency of dangerous weather events: strong winds, thunderstorms, snowstorms, and sharp temperature changes. The consequences of climate change have also caused changes in animal habitats and plant growth, discomfort for the population, threat of infrastructure destruction, etc.

Major parts of the programme area lie in the Arctic or in the subarctic climate zone. Signs of climate change and global pollution are clearly visible in the arctic areas. Sectors which are foreseen to be impacted by climate change include infrastructure, transportation, green and blue economies, hospitality and traditional livelihoods. Systems like technical and communal infrastructure, electricity systems, water sources, and terrestrial ecosystems can also be affected with severe risks for human health and safety as potential consequences. To ensure safe and comfortable living conditions, there is

a need to secure functioning ecosystem services and decrease vulnerability of natural and built environments against climate-related risks.

The programme area hosts the continent's most northern marine route and includes vast river systems and water areas (lakes etc.) that are affected by climate change. Through global warming and climate change, sea levels will rise and the frequency for extreme weather events will increase. It also changes the conditions for ice and snow due to the changes in temperature. This may lead to difficulties for the agricultural sector as well as for the transport sector.

The Arctic climate is changing, carrying wide-ranging implications for inhabitants, businesses, industry and government across the circumpolar region. Climate change particularly affects the indigenous people of the Arctic, because their traditional livelihoods depend much on, and their way of life is tightly connected to nature. For instance, reindeer herding, fishing, hunting, picking berries and handicrafts are all based on natural resources and their availability.

Long distances and arctic terrain make it challenging to maintain the infrastructure, and together with the effects of climate change this poses risks linked to human activities. Increasing economic activity in the north (shipping, exploration) also increases the need for rescue and emergency preparedness. The programme region has high professional security and emergency response institutions which cover activities under search and rescue, environmental protection, firefighting among others. There are still needs for cross-border activities for prevention and preparations for risk management measures.

Specific objective 2.2: Protection and preservation of nature, biodiversity and green infrastructure, and reducing all forms of pollution

The regions in the programme area share the challenges threatening the biodiversity and Arctic nature as a whole. Protection and preservation of nature go hand in hand with nature management policies and their cross-border development.

To reduce the loss of biodiversity, it is important that the sustainable use of natural resources is secured in green and blue economies and mining, to name but a few. There's also a need to measure and monitor the development to see what efforts are effective. Industrial pollution and unmanaged use of natural resources is a real threat to the Arctic environment. Pollution affects not only biodiversity at large but especially water, forest and subsoils.

Actors have identified a gap in the intervention logic going from research to methods for identifying risks and the actual practice. There is a lack of efficient and resilient models and methodologies for identifying and managing risks at the regional and local level.

The protected nature areas contribute to securing natural values and preserving areas of international, national, and regional value. Protected areas can also be created to preserve the landscape's uniqueness and cultural monuments. Healthy ecosystems contribute to rich biodiversity and provide services which mitigate climate change and sustain human health. This benefits local economies, enhances social well-being and raises the quality of life of the inhabitants.

With much of the programme area lying in the Arctic or in the subarctic climate zone, the area makes up a unique natural environment in global terms, containing species that are rarely encountered elsewhere. The sensitive biodiversity in the area must be protected and rehabilitated where possible. Special importance should be given to the protection of endangered species, sensitive biotopes, and cultural landscapes that are included on the World Conservation Union (IUCN) Red List of threatened species. The Arctic nature with its rich biodiversity is also important for the survival and development of both the economic activities of members of the indigenous people, and the hospitality sector.

Maintaining biodiversity is crucial for ecosystem resilience, the capability of an ecosystem to tolerate disturbance (such as effects of climate change) and to recover. Sufficient measures, such as installation of green infrastructure, mitigate the negative impacts of human economic activities to ecosystems and biodiversity.

Loss of biodiversity and degradation of ecosystems correspondingly leads to increased negative impact of climate change. Loss of biodiversity and ecosystem degradation also leads to a reduced capacity of nature to absorb and store carbon. Protection and preservation of nature and biodiversity, including management and restoration of nature areas and other biodiversity hotspots, restoration of river basins and marine ecosystems are still highly prioritized in the area.

Healthy, functioning wetlands also are important for biodiversity. Climate change may cause increased flooding and nutrient transportation, but wetlands can play an important role, through capturing and storing carbon to reduce atmospheric greenhouse gases, and providing resilience to hazards such as flooding and coastal inundation.

Priority 3: An attractive, vibrant and culturally diverse Kolarctic area

Specific objective 3.1: Role of culture and sustainable tourism in economic development, social inclusion and social innovation

Tourism, alongside the hospitality industry, has been one of the fastest developing business sectors in the programme area.

The attractiveness of the Kolarctic area builds, to a large extent on, nature, rural and remote areas, Arctic climate conditions, and the established tourism infrastructure. A unique selling point is the Arctic conditions, nature, natural phenomena and diversity of cultures in the regions.

Tourism- and creative industries in the programme area need time and resources to re-establish the relations, collaboration and communication across the borders in the aftermath of closed borders due to the global Covid-19 pandemic.

There is a close interaction between outdoor life and value creation, with nature and culture-based tourism presenting great interest. Experiences related to natural and cultural heritage is one important basis for many tourism companies. It is challenging to increase the sustainability of the tourism industry and its value creation while keeping up with new trends and also maintaining and rebuilding the

economics of the sector. Hence, there is a need for collaboration on methods and innovations for visitor and destination management. This is of great importance as we are seeing changes in both trends and challenges in the tourism sector. In addition to this, we are still not aware how this sector will resurrect after the Covid-19 pandemic.

The sector need to develop sustainable business models, based on a diverse selection of products and services that meet the challenges related to climate change, such as low snow and ice winters, and fish population protection.

The Covid-19 pandemic has affected the activities of cultural institutions, with postponing, re-scheduling public cultural events and the need to digitalise events now common issues. Recovery, stabilization, and sustainable change are critical issues for the survival of the sectors.

The demographic challenge and the ageing population trend affect the viability and attractiveness of the programme area. Culture supports the social development of communities and increases social connections and social identity in many associations and networks. In addition to increasing employment, culture presents in depth values to human beings. It is important to support wellbeing opportunities in society, whether they are provided by leisure time interest groups or produced professionally.

Culture covers all arts and artistic impressions, habits, and traditions: cultural history, dance, theatre, music, visual and performing arts, language, literature, film, museum, cultural heritage, cultural environment, and archives. The contemporary cultural sector is characterised by easy access with broad visibility, digitalisation and artificial intelligence used as tools.

The culture of the programme area is an important driving force in strengthening people's creativity and to create local and regional cohesion. Just as it is important to communicate and animate the regional community in language, traditions, and cultural heritage, it is also important to create preconditions for the development of future common cultural heritage

Priority 4: People-to-people cooperation for connected and active communities in Kolarctic area

Specific objective 4.1: People-to-people actions for increased trust

Trust between people and communities is the cornerstone of the cross-border cooperation. Knowing one's neighbour builds this trust. The extraordinary situation brought by the pandemic has closed the international borders of all four countries participating the programme, and thus re-establishment of human relations and contacts are paramount. Mutual understanding of our shared lives here in the Kolarctic regions has to be strengthened.

1.2.1. Complementarities and synergies with other funding programmes

Funding programmes with contiguous or intersecting areas should seek synergies and coordinate their cooperation. Kolarctic takes actively part in different cross-programme networks with different aims. The collaboration of the three external border programmes between the EU and the Russian

Federation, Kolarctic, Karelia and South-East Finland – Russia, is very active and focuses on drawing up common guidelines, as the National Authorities are the same for Finland and Russia, and because the beneficiaries are also partly the same. Interreg Baltic Sea Region Programme can complement the Kolarctic Programme in the fields of green and multimodal transportation, circular economy, transition to renewable energy sources and water management. In addition, actors can work on alleviation of border obstacles in innovation markets.

The network of the Managing Authorities and Joint Secretariats of **the seven programmes between the EU countries and Russia** has traditionally been coordinated by TESIM and focuses on questions related to the cooperation in all these programmes.

The network of the Arctic programmes consists of four Interreg and cross-border cooperation programmes working in the Arctic area: Northern Periphery and Arctic, Aurora, Karelia and Kolarctic. The cooperation is initiated by the EU Arctic policy and coordinated by the Northern Periphery and Arctic programme, and it aims at increasing the visibility and awareness of the funding programmes working in the Arctic area and the possibilities they can offer for the development of the area. The network has so far facilitated exchange of information, joint and coordinated events and representation at larger Arctic and European conferences. The network has also implemented the annual Arctic Award competition, which increases the visibility and awareness of the projects financed by the Arctic programmes.

1.2.2. Lessons learnt from past experiences

The overall aim of the Kolarctic ENPI CBC 2007-2013 Programme was to reduce the peripherality of the border regions and problems related to the periphery, as well as to promote multilateral cross-border cooperation. The Programme was divided into three priorities that recognized regional strengths and problems: 1) Economic and social development, 2) Common challenges, and 3) People-to-people cooperation and identity building. According to the ex-post evaluation of the Programme, the projects had succeeded particularly well in introducing people into projects' activities, and the most moderate result in the indicators had been achieved in the "number of adopted environmental technical solutions to be planned", although the initial target was still exceeded by 2 percentage points. The Programme's ex-post evaluation report states as a key finding, that even if cross-border co-operation had been carried out for more than 20 years, the nature of projects and the results achieved by them seemed to remain at rather 'soft' level, including i.a. networking across the border, awareness-raising, exchange of expertise etc. The crucial question expressed in the evaluation report is how to make the programme, projects and results more tangible, and with measurable impacts.

The findings and recommendations were taken into account in the preparation of the Kolarctic ENI CBC 2014-2020 Programme. Furthermore, during the preparation of the ENI CBC Programme, trade, tourism and the number of border crossings between Russia and Finland / EU were on the rise, and the priorities and objectives of the Programme were defined accordingly. To support the envisioned

growth in economic activities, *Viability of arctic economy, nature and environment*, and *Fluent mobility of people, goods and knowledge* were set as the two priorities of the Programme.

In 2014, the geopolitical circumstances and the operating environment significantly changed, with the consequence that trade and travel between countries, and with it the number of border crossing declined. In the implementation of the Kolarctic programme 2014-2020, the change affected the popularity of the priority of supporting the mobility of people, goods and knowledge, lowering it from expected. The priority eventually attracted few or no successful project proposals under the open calls for proposals. In turn, the project applicants demonstrated high interest in thematic objectives for business and SME development, as well as environmental protection, climate change mitigation and adaptation, placed under the priority for viability of arctic economy, nature and environment. In order to allocate all the remaining financing, the financial structure of the programme was amended accordingly. In various occasions, the programme partners expressed their interest in people-to-people cooperation and also softer forms of cooperation in different fields. A call for proposals for micro projects was opened to support new forms of cooperation.

Since March 2020, the COVID-19 crisis and related restrictions have significantly affected to the operating environment and the concrete ways to cooperate, both on programme and project level. Travel restrictions have intensified the use of online tools in communication and events, and visibility measures must have been reconsidered. Very many projects lag behind in terms of progress and cost realization. Some projects have had to revise their objectives, almost all projects have been forced to adapt their activities and modify their project plans and budgets, and a significant number of projects have ended up applying for an extension to be able to reach their targets. All this has led to a large number of Addenda to Grant Contracts.

At the same time, ongoing restrictions have increased people's desire to travel and cross national borders, to meet each other. The fact that people-to-people cooperation, culture and other softer values, as well as the revitalization and support of tourism are more clearly presented in this programme, can be at least partly attributed to this. At the programme implementation level, more flexible and faster opportunities to adapt the themes supported by the programme and the set targets to the suddenly changed operating environment were missed.

1.2.3. Horizontal principles

In all activities that are approved by the Kolarctic programme, there must be integration of the horizontal principles. This means that the activities should strive for a performance with low carbon footprint, with gender equality and inclusion of disadvantaged groups, including indigenous peoples and other culturally and linguistically distinct groups originating from the Kolarctic area.

1.3 Justification for the selection of policy objectives and the Interreg specific objectives

Selected policy objective or selected Interreg-specific objective	Selected specific objective	Priority	Justification for selection
Policy objective 1. A smarter Europe by promoting innovative and smart economic transformation	Enhancing research and innovation capacities and the uptake of advanced technologies	1. A skilled, smart and innovative Kolarctic area	<p>Enabling and enhancing research and innovation capacities is vital to sustainable regional development and innovative use of the natural resources in the Kolarctic programme area.</p> <p>Universities, higher educational institutes and research centres have a special role in the northern areas. They are drivers for economy, and attract young and education people to the region.</p> <p>Cross-border collaboration in uptake of advanced technologies and increasing skills in arctic issues, including arctic climate, cold technologies, agriculture, climate change mitigation in the arctic etc. has wide benefits in the region.</p>
Policy objective 1. A smarter Europe by promoting innovative and smart economic transformation	SO 2. Reaping the benefits of digitisation for citizens, companies and governments	1. A skilled, smart and innovative Kolarctic area	<p><i>(Digitisation in the Kolarctic Programme covers matters related to digitalisation of the society.)</i></p> <p>Pandemic launched a fast development of digital services in areas. In remote and rural areas digitalisation and digital services are of special importance. Digitalisation helps to overcome distances, and provide services for sparse population. Infrastructure needs; skills development.</p> <p>Smart economic transformation relies heavily on the uptake of digitalisation throughout the society. The available digital possibilities have not been fully utilised throughout the Kolarctic programme area.</p> <p>Quality of and access to public service provision in health and education (eHealth, telemedicine, online/distance learning) can be improved with the help of digital solutions, especially in the remote and hard to reach territories. In terms of the geographical conditions and demographic development of the programme area, the potential of digitalisation for health care and education is particularly significant.</p> <p>Kolarctic regions' MSME competitiveness can be increased by supporting their digital leap. Bringing the enabling infrastructure and public spaces up to speed with the latest digital technology, ICT solutions and e-services will foster new business ideas, models and environments.</p>

<p>Policy Objective 2 Greener, low-carbon transitioning towards a net zero carbon economy and resilient Europe</p>	<p>SO 4. Promoting climate change adaptation and disaster risk prevention, resilience, taking into account ecosystem based approaches;</p>	<p>2. A green, responsible and resilient Kolarctic area</p>	<p>Climate change is proceeding in the Arctic Areas faster than in other parts of the world, and ecosystems are fragile. Economies and communities in the north depend on natural resources and well-functioning ecosystems as sources of livelihood (green and blue economy, reindeer husbandry). The impact of climate is already felt in these sectors. Local economies' and communities capacity to adapt to quickly changing conditions should be ensured.</p> <p>Changing weather conditions mean also an additional burden for built environment. Deteriorating infrastructure can cause risks in human settlements, industrial activities as well as in transportation and logistics. Cooperation for new strategies, knowledge, technological solutions and green infrastructure is needed to support development of climate-proof communities and securing ecosystem services.</p> <p>Climate change does not know borders and its consequences are especially notable in the Northern areas of the world. For added resilience and monitoring of climate change there is a need to develop and use new technologies. Best practices, solutions in other areas/countries should be shared.</p> <p>Programme area hosts northern marine routes. Due to climate change and resulting unpredictability of weather and ice conditions, the maintenance and construction of infrastructure along the marine routes becomes more demanding, and potential risks for natural environment and emergencies grow.</p> <p>Climate change increases the extremes of weather such as the total rainfall. Programme area includes vast river systems and water areas (lakes, seas etc.) that are affected by the climate change. In Northern areas human settlements are often concentrated along river banks and coastal area, and thus cooperation in the field of flood control and water management is important. Storms, wildfires, landslides and avalanches are likewise causing risks that require joint action, learning, climate-proof planning, exchange of knowledge and installation of protective structures and solutions.</p> <p>Resilience toward changing climate conditions is especially relevant to the indigenous people in the area.</p>
<p>Policy Objective 2 Greener, low-carbon transitioning towards a net zero carbon economy and resilient Europe</p>	<p>SO 7. Enhancing protection and preservation of nature, biodiversity and green infrastructure, including in urban areas, and reducing all forms of pollution;</p>	<p>2. A green, responsible and resilient Kolarctic area</p>	<p>Northern areas host vast natural, protected and untouched areas that are important for preserving biodiversity. Maintenance of the biodiversity and biotopes is important. Arctic has specific species that do not live in other parts of the world.</p> <p>Sparse population has created conditions for existence of unique ecosystems. While economic activities in remote northern territories, marine and coastal areas are increasing, sufficient recourses should be in place for protecting valuable areas and ecosystems.</p> <p>The regions in Kolarctic programme area share the same challenges that threaten the biodiversity and integrity of Arctic</p>

			<p>nature. Stopping the loss of biodiversity is a common interest.</p> <p>The biodiversity and climate protection brings the areas actors together for the same cause. Environmental mapping and restoration are areas of mutual benefit across the borders in the Programme area. Ecologically sustainable use of natural resources and clean processes should be promoted in green and blue economies.</p> <p>Green infrastructure, providing nature-based solutions, can help to address problems such as fragmentation of natural habitats, damaged ecosystems, water and soil pollution, and contribute to risk prevention and decreasing vulnerability.</p> <p>The protected nature areas contribute to securing natural values and preserving areas of international, national and regional value.</p> <p>Arctic, climate resilient nature with a rich Arctic biodiversity is also important for the survival and development of economic activities of members of the indigenous peoples’ culture and important for tourism businesses and other economic activities.</p>
<p>Policy Objective 4 A more social Europe implementing the European Pillar of Social Rights⁵</p>	<p>SO 5. Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation</p>	<p>3. An attractive, vibrant and culturally diverse Kolarectic area</p>	<p>Culture is a central part of well-being, and art and cultural activities contribute to development of local identities and community.</p> <p>Programme area is culturally rich and diverse. Local population’s, including indigenous peoples’ capacity for maintaining and developing their culture and languages in cross-border cooperation should be ensured.</p> <p>Tourism and culture are very important for local economies, and very harshly hit by the pandemic.</p> <p>The ingredients to the attractiveness of the region are nature, ruralness and overall arctic climate conditions, and ability to host/serve due to the established tourism infrastructure. To enjoy vast acceptance among all the stakeholder (local community, businesses, end-users etc), it should be developed and done sustainably. Focusing on sustainability in tourism development will meet the needs to future tourism/tourists. Stakeholder consultations gave clear indication that people in the programme area need time and resources to re-establish the relations, collaboration and communication across the borders within the tourism and culture sector in the aftermath of closed borders due to the global covid-19 pandemic.</p> <p>Considering the demographic challenges in this region, emphasis on culture and tourism sector to create more viable and attractive communities for visits and to live in, is needed.</p> <p>Creative industries and cross-sectoral cooperation between culture, research and businesses can provide new approaches to</p>

⁵ The European Pillar of Social Rights is relevant only for EU member states.

Interreg Specific Objective 1 Better Governance	SO 3. People-to-people actions for increased trust	4. People-to-people cooperation for connected and active communities in Kolarctic area	development. People-to-people cooperation lays the foundation for most of the cross border cooperation in the region. Re-establishment of cross-border relations is needed post-Covid times even outside the tourism and culture sector revitalisation. Trust is a basis of administrative cooperation and institutional capacity building with all organizations at all levels and necessity at individual level to gain for successful collaboration. Trust building can be enhanced through projects involving different groups of people, including youth and children, sports, education, social inclusion, health services, etc. The programme can support to continue the long-term relations established between educational, research institutions, public bodies, NGOs and business actors and help each other to adapt to the digital economy era.
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2. Priorities

2.1 Priority 1: A skilled, smart and innovative Kolarctic area

2.1.1. Specific objective 1.1. - Enhancing research and innovation capacities and the uptake of advanced technologies

Related types of actions

Innovations

Enabling interregional research and development collaboration in the programme area is vital due to the size of the innovation landscape and common interests due to the geographical location. There is a need for industrial hubs and different technological clusters, such as in arctic construction, modernization of the transportation sector (on land and sea), and space-related development environments.

To facilitate and bridge some of the challenges associated with the lack of critical mass is to use shared regional research infrastructures. Some examples of areas which could benefit from development of cross border research collaboration are circular economy, big data technologies, performance of materials in Arctic conditions, how to make the process industry more sustainable, synthesis of new materials, renewable energy sources and distribution, industrial symbiosis, energy efficiency including usage of forest biomass, sustainable usage of aquatic and marine bioresources, development of space technologies (ice, sea routes, bio etc), energy storing solutions (hydrogen, batteries etc), digital solutions, and new technologies in cold climate construction.

Cooperation in the areas related to human and social dimension in the Arctic which could be further

supported include: adaptation mechanisms of the human body in the Arctic, e-health solutions for remote communities, food security, improving educational services in changing conditions, preserving traditional life style of indigenous peoples, common Arctic heritage preservation, developing circumpolar mobility and people-to-people activities

Cross-border collaboration for regional development

To develop a labour force with relevant Arctic related skills for the development and implementation of advanced technologies there is a need to stimulate the creation of a critical mass in the region. This can be established through joint field research/expeditions. This would also help to increase the value creation through the prolongation of regional cross border value chains and an increased speed of the industrial green transition.

The business sector is an important partner for the creation of flexible education programs that are in accordance with the commercial needs and trends. Life-long learning should be seen as a tool in the uptake of advanced technologies.

It is also important to involve and attract young researchers in cross-border activities as a response to depopulation. International cooperation on Arctic research and education increases research capacities, for example for informed decision-making which can be done by forecasting and predicting changes in economy, labour needs, and demographic changes.

Cross-border networks that join business owners and business developers together with the research and innovation institutions benefitting the regional development need to be established.

One way to minimise this risk connected to international economic fluctuations and at the same time to make the regions more attractive is to work with diversification. This could be done through, for example, establishing networks between local businesses and research institutions and cooperation that strengthens the exploitation of applied research in MSMEs and/or the public sector.

Many sectors which have already existing commercial innovation capacity in the area would benefit from cross-border collaboration. These sectors include sea cluster (transition to alternative, less-polluting fuels, innovation in navigation, ice-breaking), mining and metal/mineral utilisation (minimising impacts on surrounding ecosystems with better and more efficient use of recycled materials / creating conditions for secondary extraction), and creating arctic test and demonstration environments for transportation sector, component industry, space activities and so forth

Development of sustainable utilisation of natural resources

Cooperation is needed to ensure that synergies are reached and that the regional priorities in areas such as energy, mining, forestry, fishing and other land use issues, are managed in an efficient way. Innovation and supporting systems should be strengthened and developed through cross border and cross sectoral activities.

The uptake of advanced technologies in traditional economic activities (for example reindeer husbandry, fishing,) is a tool to develop modern industries based on local resources which in turn helps to diversify the regional economies, as well as to improve the quality of life of local communities in a sustainable way.

To make use of the synergies between blue and green economy, there needs to be a further processing of value chains connected to mineral extraction and processing, the blue economy (including fishery, sea food, aqua culture etc), and the green economy (including forestry and agriculture). The use of technology to develop and keep indigenous languages and cultural specificities could be developed.

The research in the higher education institutions support areas including nature-based economies, responsible tourism, and green transformation including the smart usage of natural resources and the development of new businesses, entrepreneurship, and smart societies. These areas need to develop further to ensure that the natural resources within the programme area can be utilised and developed in a sustainable way.

To increase the sustainability of the primary industries in the region and generate new business models the MSME innovation capacities needs to be strengthen with an end-users focus. This could result in an increase of local value creation.

Examples of activities (non-exhaustive) that can be supported under this specific objective:

- Collaborative problem-solving actions to promote functional clustering in important industries and between research institutes(e.g. circular economy, construction, transportation; space technologies; living labs); linking different actors in the value chain, funding multi-locational innovation / testing piloting processes.
- Common investment plans, leasing/ co-working space –arrangements.
- Development and implementation of educational and exchange programmes; targeted trainings. Programmes to attract skilled workers to stay and arrive; predictions of labour needs, HR cooperation. World of work cooperation in the education (focus on R&I); flexible international employment, recognition of know-how and professional certificates. Joint strategies or action plans for know-how.
- Common agenda-setting for innovation and applied research projects, active development of functional networks and action plans. Targeted dissemination of (popularized) research results; concrete collaborative innovation projects with actors from different sectors
- Streamlining regional strategy work (e.g. exchange between regional councils and other regional / local authorities, university strategies).
- Development and testing innovative business models, support (know-how, networks, training schemes) to value-intensive businesses, commercialisation of innovative products and services, encouraging in-house innovation, incubation services.
- Commercialisation of new technology. New public-private partnership for uptake of innovations. Developing innovation-friendly public tenders / procurement processes. Industrial needs-analysis;

Investment support.

- Practical innovative product/service/solution development and deployment activities in mining industry, forestry, aquaculture, transportation and logistics, infrastructure, renewable and smart energy, food production and other nature-based production; common management of natural resources.
- Usage of shared regional research infrastructures such as living labs, pilot and demonstration.
- Developing capacity of local and regional level administration to carry out cross-border cooperation for stronger RDI sector.

Indicators

Output indicators

- Organisations cooperating across borders
- Enterprises cooperating with research institutions
- Pilot actions developed and implemented jointly
- Strategies and action plans jointly developed
- Participants in joint training schemes
- Number of public events jointly organised

Result indicators

- Organisations cooperating across borders after project completion
- Solutions taken up or up-scaled by organisations
- Joint strategies and action plans taken up by organisations
- Completions of joint training schemes

The main target groups

- Micro, small and medium sized enterprises
- R&D actors
- Higher education and research actors
- Education/training centres and schools
- Business support organisations
- Public authorities (local, regional, national levels)
- Public service providers
- Industrial actors
- Inter-regional organisations

The Kolarctic Programme area covers a large part of the Barents region and its stakeholders are an integral part of the Kolarctic operational area. Synergies between the Barents cooperation and the Kolarctic programme are desirable. The sharing of experiences between different programmes within the Arctic cooperation has the opportunity to enrich the effects and results of the Kolarctic programme.

2.1.2. Specific objective 1.2. - Reaping the benefits of digitisation for citizens, companies and governments

Related types of actions

The Digital Shift

The programme's ambitions are to make the most out of the digital possibilities and create good remote working possibilities for citizens in the programme area, and especially for remote and small communities. Smart transportation solutions should be encouraged for better and sustainable connectivity. Digital connectivity and accessibility in the Kolarctic area requires development of sufficient ICT infrastructure for network access and provision of geographic information combining various technologies – sea cables, satellites, radio connections, broadband etc.

For a safe and secure digital environment, there is a need to increase innovation modelling through for example, the development of remote and e-learning products and to model work/living place hybrid solutions.

Digitalisation of the public sector

Quality of and access to public services in health and in education (eHealth, telemedicine, online/distance learning) can be improved with the help of digital solutions, especially in the remote and hard to reach territories. Clusters, virtual reality, and usage of virtual twins can be tools for accomplishing this.

Cross-border collaboration can contribute to the public sector's digital capacity positively. A precondition is that the enabling infrastructure and public spaces are up to date for digital solutions. This can be accomplished by using the latest digital technology. ICT solutions and e-services can foster new business ideas, models, and environments.

Digitalisation as a tool for micro, small and medium sized enterprises

The region's micro, small and medium sized enterprises (MSME) competitiveness can be increased by supporting their digital leap. The Kolarctic programme supports digitalisation for cross-border cooperation in, for example, e-Commerce, e-Business, digital innovation hubs, which are key competences to be mastered especially for MSMEs. Supporting the uptake of new digital tools will bring added value to different industries.

SME competitiveness requires good connectivity and logistics including development of smart mobility solutions. Business to business (B2B) cross-border cooperation could strengthen the uptake and use of technologies and advanced systems related to robotics, internet of things (IoT), open data 3D-printing and data-analytics. Activities which create and give access to digital resources such as large-scale data series from satellites and local data in continuous series give tools for innovations for example in ecological and meteorological monitoring systems.

Digital tools and solutions address the challenges of a limited sales market for the goods and services of MSMEs in the programme area.

Digital inclusion, equal access to digital services and events

Digitalisation as a tool provides more accessible and diverse opportunities for local communities. Implementing digital initiatives promotes the inclusion of the most disadvantaged, broadening access to new digital services, including public sector' digital health services. Cross-border and cross-sectoral cooperation between small actors on developing digital platforms such as e.g., virtual reality could be vital for the development of the cultural and public sector.

Actions which reduce and eliminate barriers to access and use of technology and digital services will be important. Also, actions that improve digital skills on an individual level are essential. Improving and developing conditions for the digital transition throughout the programme area through, for example, the development of digital hubs.

Examples of activities (non-exhaustive) that can be supported under this specific objective:

- ICT infrastructure investments to remote locations. Developing models of distance work with employers. Enabling digital and administrative solutions that allow remote work across national borders.
- Development and use of digital tools to maintain infrastructure, smart monitoring systems for national borders, development of digital solutions to ensure safe and efficient cross-border transportation and compatibility of monitoring systems; Services to optimise public transportation and logistics services.
- Development and uptake of education material and pedagogy for distance learning, utilising digital tools in face-to-face learning, development and uptake of digital tools for accessible health and social services. Development of common educational products, increasing the accessibility to health services from border areas by co-production of municipal services, utilising public-private partnerships.
- Learning about latest digital solutions; trainings of staff, study trips and exchange of best practices, upgrading of ICT infra.
- Common development and use of digital platforms and solutions that enable cross-border business opportunities (e.g. e-commerce, e-business, access to innovation hubs, support to uptake tools); overcoming border legal obstacles of digital commerce etc.
- Training for new digital skills and business / cultural / service operations, information about advantages of latest technologies to overcome border obstacles, market barriers, long distances etc.
- Establishment of local digi-centres, training for special target groups, agenda-setting for recognising need for specified digital services or supporting services to access existing service.
- Collaborative planning to digitize certain spheres, common digital curricula, enabling collaborative land use planning in border areas by taking up digital tools, common databases.

- Creation of digital service centres and coordination of data collection and storage. Establishment of permanent and constantly updating common digital libraries.
- Developing capacity of local and regional level administration to carry out cross-border cooperation for furthering digital solutions.

Indicators

Output indicators

- Organisations cooperating across borders
- Pilot actions developed jointly and implemented in projects
- Strategies and action plans jointly developed
- Participants in joint training schemes
- Number of public events jointly organised

Result indicators

- Organisations cooperating across borders after project completion
- Solutions taken up or up-scaled by organisations
- Joint strategies and action plans taken up by organisations
- Completions of joint training schemes

The main target groups

- Public authorities (local, regional, national levels)
- Public service providers
- R&D actors
- Higher education and research actors
- Education/training centres and schools
- Business support organisations
- Micro, small and medium sized enterprises
- Civil society organisations and NGOs
- Industrial actors
- Inter-regional organisations

The Kolarctic Programme area covers a large part of the Barents region and its stakeholders are an integral part of the Kolarctic operational area. Synergies between the Barents cooperation and the Kolarctic programme are desirable. The sharing of experiences between different programmes within the Arctic cooperation has the opportunity to enrich the effects and results of the Kolarctic programme.

2.2 Priority 2: A green, responsible and resilient Kolarctic area

2.2.1. Specific objective 2.1. - Promoting climate change adaptation and disaster risk prevention, resilience, taking into account eco-system based approaches

Related types of actions

Prevention or management of climate related risks

The Kolarctic programme can support cross-border actions that decrease climate related risks to natural and human environments in the programme area. Consequences of increased flooding, landslides and avalanches, fires as well as sharply changing temperatures, thawing permafrost and storms are expected to be increasingly intense.

Information and practically oriented knowledge production are the basis for developing efficient risk response plans, strategies and practices. Kolarctic programme enables data collection and exchange, sharing of know-how and collaboration in seeking solutions for climate-related risk mitigation and rescue cooperation. Exchange of know-how and coordinated trainings between relevant actors can be organised to ensure good and up-to-date preparedness and response methods to wildfires, floods and other natural disasters. Introduction of technical and social innovations or solutions to reduce risks of fire, floods, landslides and storms in societies and built environment is encouraged. Other actions on this field could, among other things, include development of water-basing planning tools, arrangements of green infrastructure to prevent landslides, soil erosion and flooding, installation of monitoring and warning systems, and awareness raising.

Climate change measures – resilience and management

Climate change increases the vulnerability of communities living in cities and rural areas of the programme region. Exchange of know-how, piloting and implementation of new solutions in land use, urban and community planning can decrease the vulnerability of rural and urban settlements facing climate-related risks such as increased flooding, fires, storms, and melting permafrost. Common action plans, strategies and mutual learning can increase the resilience of communities that are facing big and uncontrollable changes in their livelihoods. Kolarctic programme enables actions for planning, piloting and adopting new solutions to develop climate-proof settlements where municipal and green infrastructure and good-quality buildings provide safe and comfortable living conditions for people.

Building resilience and methods to minimise the risks connected to the changing climate is especially relevant to remote communities and to the indigenous people in the area. It is important to develop joint methods that support the practice of traditional livelihoods in a changing world and to develop new livelihoods such as sustainable tourism around indigenous peoples' culture.

Traditional knowledge as well as new digital tools can be used to develop methods and solutions on how to adapt the society, including individuals and enterprises, to the changing climate. This can be supported by the exchange of best practices and by creating networks between researchers and public

and private actors. This could increase knowhow, raise awareness and willingness to take action to adapt to climate change, and spur on knowledge-based actions.

As climate change is an ongoing process it will be important to involve national scientific institutions, the youth, civil society, non-governmental organisations and the educational system to ensure that the knowledge creation system remains contemporary throughout and beyond the programme period. Practises which further increase the accessibility of reliable climate monitoring data (open data) have mutual benefits to the whole programme area. The fact that climate change is happening faster and hence, is more visible, in the Arctic, makes the programme area a good place for testing solutions, systems and innovations. It creates an opportunity to develop new knowledge and expertise which can be exported to others.

Non-climate, human-induced risk: prevention management

In addition to being a home for 2.8 million inhabitants, Kolarctic area is a place for utilisation of natural resources, industrial production, transportation and other economic and human activities. Proceeding climate change and green transition are further intensifying the economic utilisation of Arctic natural resources and areas. Therefore, it is important to develop activities improving preparedness to technical and human-induced accidents. This could include the exchange of best practices on management of the risks, and the use of advanced technologies to predict and mitigate accidents may be important activities. Possible areas for cross-border collaboration in the disaster risk management are, for example, improvement of search and rescue capacities in remote areas, mapping of contamination risks and erosion, establishment of green water management for infiltration, systems oil spill preparedness and response, continual updates of routines to reduce the risk of infection and the setting of strategies to enable providing support to vulnerable groups and information spreading of risks in different themes, such as food handling processes.

Examples of activities (non-exhaustive) that can be supported under this specific objective:

- Awareness raising and communication about climate change and climate-related risks in the programme region.
- Trainings, exchange of knowledge and best practices.
- Development of common strategies and action plans for climate change adaptation.
- Development of common strategies and action plans for risk management.
- Piloting new methods/solutions for climate change adaptation and mitigation.
- Piloting new methods/solutions for risk management.
- Deployment of technology and small-scale solutions (e.g. green infrastructure) for climate change adaptation and climate risk management.
- Assigning roles and responsibilities for the use of monitoring data and maintenance of the monitoring systems.
- Development of methods to carry out traditional livelihoods in changing conditions, and introduction of new livelihoods.

- Cooperation between researchers and local communities, public and private actors.
- Making action plans and strategies for climate change adaptation on different governance and community levels.
- Development of mitigation technologies and methods, installation of climate and disaster risk prevention monitoring systems, collecting information and making action plans.
- Improving safety measures and infrastructure along sea routes and marine areas.
- Data collection and development of new methods for search and rescue operations
- Reconstruction or installation of green infrastructure to decrease vulnerability and prevent climate imposed risks such as floods, landslides and harmful contamination of water resources.
- Developing capacity of local and regional level administration to carry out cross-border cooperation in climate risk prevention management.

Indicators

Output indicators

- Pilot actions developed jointly and implemented in projects.
- Organisations cooperating across borders
- Strategies and action plans jointly developed
- Participants in joint training schemes
- Public events jointly organised
- Green infrastructure built or upgraded for adaptation to climate change*

Result indicators

- Joint strategies and action plans taken up by organisations
- Organisations cooperating across borders after project completion
- Solutions taken up or up-scaled by organisations
- Completions of joint training schemes

The main target groups

- Public authorities (local, regional and national)
- Higher education and research actors
- Business support organisations
- Micro, small and medium sized enterprises
- Sectoral agencies
- Civil society organisations and NGOs
- Local communities and citizen groups
- Industrial actors
- Inter-regional organisations

The Kolarctic Programme area covers a large part of the Barents region and its stakeholders are an integral part of the Kolarctic operational area. Synergies between the Barents cooperation and the Kolarctic programme are desirable. The sharing of experiences between different programmes within

the Arctic cooperation has the opportunity to enrich the effects and results of the Kolarctic programme.

2.2.2. Specific objective 2.2. - Enhancing protection and preservation of nature, biodiversity and green infrastructure, including in urban areas, and reducing all forms of pollution

Related types of actions

Preservation of biodiversity

Biodiversity and functional ecosystems is the foundation of ecosystem services in the Kolarctic region, as well as elsewhere. In the programme area there is a lack of knowledge and reliable data of the occurrence as well as the population trends of several groups of species, such as for example, pollinators (insects). There is a need for environmental monitoring programmes adapted to the arctic and subarctic conditions, as well as practical environmental actions. Joint efforts to reduce pollution and stop the loss of biodiversity and northern species are needed.

A well-developed green infrastructure that connects fragmented habitats (e.g. fish ladders; wildlife overpasses) or otherwise supports ecosystems can positively contribute to the preservation and the resilience of biodiversity and climate.

Invasive species are a threat to endemic flora and fauna. Effective cross-border management and data and best practises exchange methods that decrease invasive species and conserve native species can be important activities. Activities that raise the awareness and understanding of individual's responsibility to prevent the spread of invasive species, as well as in situ protection activities in the most critical areas, could also be of interest.

Restoration and protection of nature

Environmental monitoring, mapping and restoration are areas of mutual benefit across the borders in the programme area, and this can include the restoration and management of critically degraded sites in cross-border areas. Landscape restorations can be important cross- border activities for sustainable management of land features such as Arctic rivers, tundra landscapes and Arctic islands.

Environmental actions could learn and benefit from the inclusion of local people.

It is also important to work with the restoration and management of damaged ecosystems, both in nature and proximity of built environments. Landfills, closed and open, are one examples of contaminated lands that can endanger surrounding ecosystems. Joint action could also be taken to reduce local pollution of land and water areas.

Functioning wetlands and mires decrease the negative effects by absorbing and storing excess rainfall and reducing flood surges. Wetlands that are highly modified or degraded are more sensitive and less resilient towards climate change. Therefore, it is significant to preserve wetlands with functioning hydrology as well as restore degraded wetlands such as drained mires.

Well-functioning, sufficient and relevant network of protected areas is a key to survival of endangered species and rare and fragile biotopes. Particularly vulnerable land and water areas should be recognised, and action taken to ensure their protection.

Restoration and management of damaged ecosystems should be done with a holistic approach. Common methods and methodologies are examples of results that would be useful for the programme area. Activities could for example be developed through cooperation when working in protected or other nature areas, or be around monitoring collaboration in polluted areas of built environments.

Sustainable management of natural resources

Cooperation in monitoring of resources such as ground water, fresh-water (especially in the common water resources such as rivers and lakes), seas, soil, forests, and animal and plant species can be developed through cross border collaboration and knowledge exchange. Methods and innovations for ecologically sustainable use, protection and management of natural resources could be developed and harmonised in various fields in blue and green economy, and in mining energy production and land use.

Awareness raising among local communities

As there are different levels of environment awareness and hence, different interpretations of what a sustainable way of life is are in competition, it's important to increase and transfer relevant knowledge, experience and engagement of scientific institutions, communities and civil society through exchange of best practises and networking in the programme area.

Examples of activities (non-exhaustive) that can be supported under this specific objective:

- Awareness raising and communication about biodiversity, restoration and safe guarding.
- Measures on restoration of e.g., wetlands, peatlands, mires, rivers, marine areas and ecosystems.
- Measures on damage mitigation of polluted environment and contaminated lands e.g. landfills and industrial sites.
- Comparative and joint data collection, surveys, inventory and analysis, scenario building and plans.
- Knowledge and best practice building and exchange, joint implementation.
- Harmonisation of working methods, guidelines.
- Harmonisation and development of sustainable management strategies.
- Restoration, conservation and increased connectivity.
- Methods for including stakeholders with traditional knowledge in nature management and decision making.
- Development and harmonisation of joint plans and strategies.
- Piloting and building green infrastructure to support both natural and human habitats.
- Developing capacity of local and regional level administration to carry out cross-border cooperation for restoration and protection of nature.

Indicators

Output indicators

- Organisations cooperating across borders
- Pilot actions developed and implemented jointly
- Strategies and action plans jointly developed
- Participations in joint training schemes
- Public events jointly organised
- Green infrastructure supported for other purposes than adaptation to climate change
- Surface area of rehabilitated land supported

Result indicators

- Organisations cooperating across borders after project completion
- Solutions taken up or up-scaled by organisations
- Joint strategies and action plans taken up by organisations
- Completions of joint training schemes
- Rehabilitated land used for green areas, social housing, economic or other uses

The main target groups

- Public authorities (local, regional and national)
- Higher education and research actors
- Education/training centres and schools
- Business support organisations
- Local communities and citizen groups
- Micro, small and medium sized enterprises
- Sectoral agencies
- Industrial actors
- Inter-regional organisations

The Kolarctic Programme area covers a large part of the Barents region and its stakeholders are an integral part of the Kolarctic operational area. Synergies between the Barents cooperation and the Kolarctic programme are desirable. The sharing of experiences between different programmes within the Arctic cooperation has the opportunity to enrich the effects and results of the Kolarctic programme.

2.3 Priority 3: An attractive, vibrant and culturally diverse Kolarctic area

2.3.1. Specific objective 3.1. - Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation

Related types of actions

Sustainable and inclusive tourism

The hospitality sector has suffered severely from the Covid-19 pandemics. There is a need for recovery

and re-establishing cross-border relationships. Focusing on sustainability, visitor and destination management, tourism development will attract future tourists, and enjoy greater acceptance from all stakeholders, including local communities, businesses, and end-users. Sustainability is necessary not only from business perspective but more importantly from environmental point of view, as tourism is based on fragile arctic nature and the services it accommodates. Sustainable development of tourism ecosystems in the hubs, towns and cities is also needed.

Development of sustainable tourism could be supported by actions creating joint nature- or cultural tourism routes around joint lake, river, coastal or inland routes. One example of this kind of joint tourism route is Fennoscandian Green Belt, which goes along the border between Norway, Finland and Russia in the North and continues all the way along the Finnish-Russian border and further to other parts of Europe.

Emphasis is needed on the culture and tourism sector to create more viable and attractive communities for both visitors and residents. This can be also done by cross-border and cross-sectorial actions which revitalise the intangible cultural heritage, enhance inclusiveness, and increase attractiveness of the Kolarctic region. Activities that promote innovation in the tourism sector, visitor and destination management, and inspire new cross-border travel concepts and services should be prioritised.

In this case, visitor management is about safeguarding the interests of different stakeholders, such as local residents, volunteer sector, outdoor life organisations, other business actors tied to green and blue economies.

The quality and sustainability of the sector could be enhanced through digital solutions. By delivering experiences that meet and exceed the client's expectations, the interest in traveling to the region will increase.

An important field for advocacy work is to increase and improve cross-border mobility and accessibility of the area. This would stimulate the competitiveness of the tourism and hospitality sector in the Kolarctic regions.

Creative and intangible culture and cultural heritage

The Kolarctic area has, in many ways, a rich various and unique culture and cultural heritage. The cultural and creative sector has suffered severely from the Covid-19 pandemics hence, recovery and re-establishing actions are needed.

Due to digitalisation the cultural and creative industry has many opportunities for further development by also using cross-border and cross-sectorial collaboration. These opportunities include exchanging competence in art and culture, facilitating artistic and culture value, and enhancing the Kolarctic programme region's cultural attractiveness and readiness for internationalisation.

One important action is the development of new sustainable industries in the creative field, such as art and cultural production and the festival industry. These should include an indigenous dimension and all intangible cultural heritage in the Kolarctic region.

The attractiveness of the region can be increased by preserving, revitalising and developing remote communities that have a strong intangible cultural heritage. This can be done through tourism, supporting small local businesses, building of age-friendly societies and engaging local communities in cross-border activities. Those actions should be made through cross-border networking.

Preservation of cultural heritage in the Kolarctic region can be developed through enhanced visibility and sustainable easy access, such as through new technologies in restoration, archaeology, and joint promotion. Additionally, this can be produced through the creation of joint cultural products through cross-sectoral development, such as the creation of joint exhibitions, joint product development, and joint art platforms and networks. Furthermore, there is also the opportunity for the development of networks for dissemination, competence exchange, and joint, cross-border promotion of culture from the northern regions on the international arena.

Supporting greater visibility of indigenous and minority language cultures, and their contribution to local economy, including tourism sector, in cross-border areas is of vital importance, along with the protection and promotion of these-indigenous and minority languages, livelihoods and ways of living.

Examples of activities (non-exhaustive) that can be supported under this specific objective:

- Development of new cross-border travel concepts; creation of joint cultural and travel products.
- Safeguarding interests of different stakeholder groups in developing tourism.
- Planning and organisation of common events, festivals, campaigns to activate and celebrate Northern culture.
- Networking, common events.
- Support cross-border collaboration, partnerships, knowledge exchange and joint solution and competence-enhancing initiatives.
- Support joint cross-border accessibility and mobility solutions, for example, synchronizing timetables.
- Development of nature-based tourism.
- Reconstruction and renovation of cultural heritage objects.
- Support for cultural clusters that contribute to the development of creative industries.
- Develop culture and creative industries through refined or new cross-border products, methods, services and networks.
- Developing capacity of local and regional level administration to carry out cross-border cooperation for stronger tourism, culture and creative industries sector.

Indicators

Output indicators

- Organisations cooperating across borders
- Pilot actions developed and implemented jointly
- Public events jointly organised
- Participations in joint training schemes

Result indicators

- Organisations cooperating across borders after project completion
- Solutions taken up or up-scaled by organisations
- Completions of joint training schemes

The main target groups

- Public authorities (local, regional and national)
- Public service providers
- Business support organisations
- Micro, small and medium sized enterprises
- Civil society organisations and NGOs
- Higher education and research actors
- Education/training centres and schools
- Local communities and citizen groups
- Inter-regional organisations

The Kolarctic Programme area covers a large part of the Barents region and its stakeholders are an integral part of the Kolarctic operational area. Synergies between the Barents cooperation and the Kolarctic programme are desirable. The sharing of experiences between different programmes within the Arctic cooperation has the opportunity to enrich the effects and results of the Kolarctic programme.

2.4 Priority 4: People-to-people cooperation for connected and active communities in Kolarctic area

2.4.1. Specific objective 4.1. - People-to-people actions for increased trust

Related types of actions

People and locality makes the cross-border collaboration real

The ambition of the programme is to bring people together. This can be achieved for example by empowering local communities through socio-economic integration and inclusion activities.

Re-establishment of cross-border relations is needed post-covid19 times even outside the tourism and culture sector revitalisation. Trust building can be enhanced through projects involving different groups of people, including youth and children, sports, education, social inclusion, health services, etc.

Systematic cross-border programmes and schemes enable citizens' collaboration in sports, culture, art, music, municipality associations and other types of civil society organisation. Themes of collaboration can vary. They can promote healthy life styles especially among youth but also in the whole population. The aim is to give citizens a possibility to be part of international cooperation, learn from each other and foster a sense of togetherness with activities such as student and youth exchanges, skills collaboration, joint educational activities, summer schools etc.

Promotion of volunteering actions and possibilities in different spheres and to different age groups can open new collaboration possibilities.

Actions enhancing participation of citizens in creating living environments, both in urban and rural contest, could be supported. Sharing good practises and learning from each other in participation in local decision-making process can also contribute to the attractiveness of the communities across the borders. Different approaches and tools (digital and non-digital) to connect people, young and old, should be tested and piloted.

Examples of activities (non-exhaustive) that can be supported under this specific objective:

- People to people activities for raising awareness about social challenges e.g. circular economy, climate related issues, digital transition
- Joint cultural activities and events
- Empowering local communities through socio-economic integration and inclusion activities
- Activities that give citizens a possibility to be part of international cooperation
- Learn from each other and foster a sense of togetherness with activities such as student and youth exchanges, skills collaboration, joint educational activities, summer schools etc.
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Indicators

Output indicators

- Organisations cooperating across borders
- Pilot actions developed and implemented jointly
- Participations in joint actions across borders
- Public events jointly organised
- Participations in joint training schemes

Result indicators

- Organisations cooperating across borders after project completion

- Solutions taken up or up-scaled by organisations
- Participations in joint actions across borders after project completion
- Completions of joint training schemes

The main target groups

- Civil society organisations and NGOs
- Local communities and citizen groups
- Public authorities (local and regional)
- Public service providers
- Schools and universities
- Education/training centres and schools
- Business support organisations
- Micro, small and medium sized enterprises
- Inter-regional organisations

The Kolarctic Programme area covers a large part of the Barents region and its stakeholders are an integral part of the Kolarctic operational area. Synergies between the Barents cooperation and the Kolarctic programme are desirable. The sharing of experiences between different programmes within the Arctic cooperation has the opportunity to enrich the effects and results of the Kolarctic programme.

3. Partnership in programming and programme implementation

Partnership in programming

General information about the programming process has been maintained and updated in Kolarctic-website: <https://kolarctic.info/kolarctic-what-next-2021-2027/> since the start of the programming.

Publicly open online survey in was conducted fall 2020 to get the views and opinions of the residents and stakeholders of the Programme region. With the help of the survey opinions on the selection and prioritisation of themes for the Programme was gathered. Almost 300 respondents took part to the survey and over 120 open comments were gathered and analysed. Information about the survey was disseminated via social media and email lists which were gathered from all participating countries and included current project partners, key stakeholders from ministries, public and private sectors, municipalities, associations and media contacts.

In the programming process, the Programming Committee set a Task Force to prepare and develop the content for the territorial analysis and chosen Programme priorities. The Task Force composed of regional representatives with wide range of expertise from various fields including cross-border collaboration, RDI, business collaboration and environmental issues. In the territorial analysis the Task Force involved sector specific specialists in each participating country.

Task Force and the Branch Offices organised stakeholder consultations in each country, in different

format (interviews, sector specific discussion forums, questionnaires, regional webinars etc.) Almost 200 representatives were involved in the stakeholder consultations.

Due to its territorial and strategic operational context the International Barents Secretariat has been consulted when developing the programme priorities.

Joined partner consultation presented the 1st draft of the Programme document and four priorities with selected specific objectives. This virtual, open to all public consultation gathered comments and feedback from over 80 participants. The general feedback received confirmed that the programming is on the right track, and valuable comments were received to clarify and specify few of the Specific Objectives. Community of practitioners were created around each chosen priority by bringing together all interested parties under each priority.

Preparation of the Programme has been done in close connection with the Programmes involved in Arctic Cooperation and with ENI CBC Programmes in Finland. These collaboration venues have made it possible to benchmark good practises and work towards coherent systems and services.

Partnership in programme implementation

Programme partners and stakeholders in all participating countries will be involved in the programme implementation in various ways. The composition of the Joint Monitoring Committee reflects the principle of partnership. Each participating country at the level of its central government, and each participating region are represented in the Committee.

Social partners and other sectors of society will be involved in the programme implementation through information sessions, surveys and direct contacts. Project evaluation can also make use of stakeholder representatives from different sectors in the programme area, taking into account and excluding potential conflicts of interest. The National Authorities of the participating countries shall ensure that the relevant partners in each country are involved in the programme implementation, in accordance with the legislation of the country in question.

Project beneficiaries and target groups are an important group of programme partners. They have a role not only in project implementation, but also in the implementation and development of the programme. The Programme will make an effort to reach all relevant actors and involve potential applicants in all regions of the programme area. Programme's objectives and opportunities will be introduced and practical guidance given to potential beneficiaries and other stakeholders in information sessions, on website and via other communication channels. Involvement of stakeholders and quality of Programme operations will be monitored throughout the Programme implementation. Collection of various forms of feedback from project beneficiaries and target groups is an important part of evaluation and further development of the Programme.

The Managing Authority, together with the Joint Secretariat and its Branch Offices, support the

involvement of stakeholders to the programme implementation. Measures to enable this include e.g. communicating the opportunities and achievements of the programme in different ways and through different channels, and raising the profile and awareness of the programme. The aim is to create dialogue, in order to consult stakeholders for the purpose of developing the programme.

4. Communication and visibility

The programme is implementing information and communication activities in order to achieve the following general objectives:

- The Programme is recognised as a well-known and reliable actor in cross-border cooperation and development of the border regions of the Kolarctic programme area,
- The funding opportunities, and the services provided by the Programme, and the priorities and specific objectives of the Programme are communicated to the target groups in ways which support high-quality applications and projects which meet the objectives of the Programme
- The implementation of the Programme and projects ensure equal visibility for all financiers
- The programme contributes to highlighting the strengths, opportunities and special features of the region.

The target audiences of external communication are:

- local and regional stakeholder organisations representing regional development, industries, competence development and public administration, relevant for the chosen priorities and Specific objectives of the programme
- prospective and final beneficiaries
- other relevant institutions participating in cross border cooperation
- wide public in the participating countries, regions and beyond
- other financing instruments relevant for the programme area

The target audiences of internal communication are:

- funded projects
- the management bodies of the programme
-

The programme selects the communication channels which are relevant concerning the target group and the message. The most relevant channels are likely to vary during the programme period 2021-2027 and the JS will stay up to date about the development of them. The channels will be at least

- internet (a domain owned by the MA)
- social media tools
- events (online and live in all participating countries)
- public and media relations
- individual consultation: discussions

Written, spoken and visual material, both printed and electronic, is used as tools in the channels.

Financial and human resources for communication

The programme will allocate to the costs of information and communication (including personnel costs and external services) 0,5 % of the total financing of the programme (which means 5 % of the TA, provided that the TA is 10 % of the total financing of the Programme). The communication tasks will be in the Joint Secretariat and Branch Offices.

Indicators of successful information and communication consists of at least the following: (basic draft)

- number of applications, and
- ratio of successful applications
- number and tone of media hits in all participating countries
- number social media followers
- relevant target groups' participation in events of the programme

5. Implementing provisions

Programme authorities

Programme authorities	Name of the institution [255]	Contact name [200]	E-mail [200]
Managing authority	Regional Council of Lapland	Riikka Holster	riikka.holster@lapinliitto.fi
National authority (for programmes with participating third or partnercountries, if appropriate)	The Russian Federation National authority Ministry of Economic Development Norwegian National authority Ministry of Local Government and Modernisation	Vsevolod Vovchenko Lisbeth Nylund	Lisbeth.Nylund@kmd.dep.no
Audit authority	Ministry of Finance of Finland	Kari Rouvinen	kari.rouvinen@vm.fi
Group of auditors representatives	n/a		
Body to which the payments are to be made by theCommission	Managing Authority /Regional Council of Lapland		

Procedure for setting up the joint secretariat

The Joint Secretariat (JS) will be established in connection with the Managing Authority (MA) in the Regional Council of Lapland, Finland.

The Joint Secretariat assists the Managing Authority to carry out its functions, provides information to potential beneficiaries about funding opportunities and assists beneficiaries and partners in project implementation.

To ensure the Joint Secretariat's ability to serve equally the potential and acting beneficiaries in all

the participating regions, the JS will have a Branch Office (BO) in Russia, Norway and Sweden. The BOs are working together with the JS, under the responsibility of the MA. The BOs i. a. ensure communication and information activities in their countries, provide information on the Programme and projects to beneficiaries and National Authorities, and communicate the Programme's results in the Programme regions.

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DRAFT

6. SWOT analysis of the draft Kolarctic 2021-2027 Territorial Analysis

STRENGTHS	WEAKNESSES
<p data-bbox="100 199 324 231">Environmental:</p> <ul data-bbox="100 239 470 271" style="list-style-type: none"><li data-bbox="100 239 470 271">• Clean natural resources; <p data-bbox="100 311 280 343">Economical:</p> <ul data-bbox="100 351 996 582" style="list-style-type: none"><li data-bbox="100 351 795 383">• Promising good practice cases of green transition;<li data-bbox="100 391 996 454">• Specific indigenous peoples' industries in interaction with nature and with ecological sustainability;<li data-bbox="100 462 683 494">• Potential for developing new livelihoods;<li data-bbox="100 502 996 534">• Strong industry sectors with access to valuable natural resources;<li data-bbox="100 542 918 574">• Good digital connectivity especially in larger communities. <p data-bbox="100 614 212 646">Social:</p> <ul data-bbox="100 654 940 821" style="list-style-type: none"><li data-bbox="100 654 907 686">• Relatively low unemployment (compared internationally);<li data-bbox="100 694 940 774">• Relatively high level of education and cultural hubs in larger cities to attract talent;<li data-bbox="100 782 616 813">• Equality and inclusion at high level.	<p data-bbox="1019 231 1243 263">Environmental:</p> <ul data-bbox="1019 271 2027 502" style="list-style-type: none"><li data-bbox="1019 271 1668 303">• Green transition coming only with slow pace;<li data-bbox="1019 311 1747 343">• Negative consequences of climate change to nature;<li data-bbox="1019 351 2027 422">• Risk of climate related flooding, landslides and fires heavily affecting the regional economics;<li data-bbox="1019 430 1624 462">• Black-carbon problem and CO2 emissions<li data-bbox="1019 470 1915 502">• Risk of economic consequences of impact from invasive species. <p data-bbox="1019 510 1198 542">Economical:</p> <ul data-bbox="1019 550 2004 774" style="list-style-type: none"><li data-bbox="1019 550 1646 582">• Low level of diversification of the economy;<li data-bbox="1019 590 1724 622">• Peripherality and low accessibility across the area;<li data-bbox="1019 630 1691 662">• High exposure to shifts in international market;<li data-bbox="1019 670 2004 734">• International & cross-border business cooperation possibilities not fully utilized;<li data-bbox="1019 742 1814 774">• Low level of local/regional investors & KIBS companies. <p data-bbox="1019 782 1131 813">Social:</p> <ul data-bbox="1019 821 2060 1204" style="list-style-type: none"><li data-bbox="1019 821 1780 853">• Lack of inclusion of vulnerable groups in working life;<li data-bbox="1019 861 1825 893">• Aging population & depopulation in smaller communities;<li data-bbox="1019 901 1892 933">• Outmigration (especially youths and young adults) to the cities;<li data-bbox="1019 941 2060 1013">• The balance between the economically inactive and active population has to be strengthened in order to provide growth;<li data-bbox="1019 1021 2038 1093">• The future supply of skills will be a challenge for remote municipalities in particular;<li data-bbox="1019 1101 2060 1165">• A low population density and a number of inhabited remote settlements and hard-to-reach areas;<li data-bbox="1019 1173 2004 1204">• Accessibility and quality of health services (especially in remote areas). <p data-bbox="1019 1212 1321 1244">Connectivity related:</p> <ul data-bbox="1019 1252 1747 1444" style="list-style-type: none"><li data-bbox="1019 1252 1288 1284">• Long distances;<li data-bbox="1019 1292 1691 1324">• Obstacles in connectivity in east-west transport,<li data-bbox="1019 1332 1736 1364">• High transport costs with high ecological footprint;<li data-bbox="1019 1372 1747 1404">• Different digital network owners (public v private) ;<li data-bbox="1019 1412 1702 1444">• Bad compatibility between the different systems.

OPPORTUNITIES

Environmental:

- Successful local adaptation to climate change;
- Sustainable use of natural resources;
- Attractive and unique natural environment.

Economical:

- Established Barents cooperation at regional and national levels
- Business models to recover from covid-19 with sustainable solutions (e.g., tourism);
- Development of cultural and tourism entrepreneurship;
- Gain increased value creation and increased export revenues based on local raw materials;
- Further processing of value chains connected to blue economy (including sea food, aqua culture, fishery etc), minerals and forestry;
- Digital leap “the Arctic way” enabling e.g., more remote working – as a possibility for smaller communities;
- Climbing value chains through smart investments;
- Further investment in science, including citizen science, to make the region seen as innovative and attractive communities.

Social:

- To develop more viable and attractive local communities;
- Better integration of immigrants in local communities;
- Better/more CBC of the indigenous population;
- Enhancing correlation between education and skills needed;
- Further cooperation on development of e-health systems;
- Stronger cross-border interaction between health institutions in order to offer better health services in the region.

THREATS

Environmental:

- Land areas under pressure – (possible conflicts with forestry, mining, tourism, herding, forestry, etc.);
- Negative consequences of climate change to nature;
- Industry pollution and unsustainable use of natural resources;
- Competition and restriction on the use of natural and pasture resources;
- Loss area for sustainable reindeer herding;
- Loss of threatened and sensitive biodiversity and species;
- Black-carbon problem and CO2 emissions
- Climate change challenges.

Social:

- Depopulation and outmigration continue- lack of critical mass;
- Urban/rural disparity;
- Pressure on services- negative spiral.

Economical:

- Loss of traditional livelihoods;
- Too few international/cross-border business initiatives;
- Insufficient number of new innovative companies.

General

- Different legislation and administrative regulations.