

Norrbotten's political platform for the Arctic



Introduction

The Growth Committee, a political preparation committee run jointly by the Municipalities of Norrbotten and Region Norrbotten, has drafted a political document describing how our region can benefit from its geographical location in Arctic Europe.

In order to create awareness that we in Norrbotten are a part of the Arctic landscape, seminars on the Arctic were arranged in 2016 with various actors from the academic and business community, and civil society. To establish a broad political base, a conference was also held with more than 70 politicians from Norrbotten.

Sweden is an Arctic country. Norrbotten and Västerbotten have physical locations of major political significance in a complex Arctic with sensitive environments, multiple cultures and economic potential.

Climate and environmental changes will have a decisive impact on the future potential for those of us who live and work here in the North; for example, climate changes are affecting the conditions for Sami culture and business. It is therefore important that Sweden's Arctic policy includes multiple perspectives so as to promote long-term sustainable development.

To foster greater knowledge and development of the Arctic, collaboration has been established between the national and regional levels in Sweden. This collaboration is very important, and we politicians intend to continue developing and positioning Sweden and Norrbotten together within the Arctic.

Our political ambition is to enable sustainable development that benefits business, academia and research, the environment, culture, welfare and our citizens. The ambition is also to highlight Norrbotten as an attractive region that contributes to sustainable growth at the heart of Arctic Europe.

"Norrbotten's Political Platform for the Arctic" is a common description of the potential for sustainable growth. This document should be seen as a basis for discussions on Norrbotten's development, and constitute a part of the preparation of the regional development strategy.

The document was prepared in collaboration and adopted in the Growth Committee on 2 January 2017.

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Vision:

Arctic Norrbotten – sustainable communities with world-class innovations

This vision expresses the desired future, and a political standpoint of our ambition for Norrbotten to become an innovative Arctic centre in Europe.

Our attractive living environments and communities should be characterised by diversity, innovative thinking and openness, promoting security and involvement, where creative ideas are encouraged and allowed to grow.

Research, development and innovation, as well as an expansive business community are drivers of a competitive region that attract people to live and work here.

We are working to create a sustainable region where decisions are made in consideration of economic, social and environmental aspects.



Background, the present situation and the future

The Arctic is often defined as consisting of the large Arctic Ocean at the North Pole, with the surrounding land areas. What land areas are actually included in the Arctic is open for discussion, as there are several different definitions. Finland draws the boundary at the 60th parallel, which makes the whole of Finland a part of the Arctic. The Arctic Council's joint political definition of the Arctic comprises the areas north of the Arctic Circle and thereby the associated eight Arctic states: Denmark (Greenland and Faroe Islands), Finland, Iceland, Canada, Norway, Russia, the U.S. and Sweden.

The Arctic Council was founded in 1996 by the governments of the eight Arctic countries and by six indigenous peoples' organisations with the aim of protecting the Arctic environment, promoting sustainable development and improving the financial, social and cultural prosperity of the residents of the Arctic. Since then, a number of international institutions, forums and networks have been established to further promote international collaboration and jointly administer the Arctic region.

Swedish strategy for a sustainable Arctic

Concurrently with Sweden's assumption of the chairmanship of the Arctic Council in 2011-2013, the Government adopted *Sweden's strategy for the Arctic region*, with a major focus on sustainability. In various contexts, Sweden has brought up the climate

issue and the work of protecting the Arctic's sensitive nature, ecosystem and biological diversity. Reduced carbon dioxide emissions have been emphasized as the most important measure for limiting the warming of the Arctic.

The Government of Sweden continues to have high environmental ambitions, and wishes to strengthen the joint climate work in the Arctic Council. Among other things, Sweden has pushed for a reduction of emissions of soot and methane, and now aims to broaden the climate work with more efforts for the development of renewable energy. The new global climate agreement, known as the Paris Agreement (COP21), is legally binding, with the goal of keeping global warming below 2 degrees. Together with the UN Agenda 2030 and the 17 global targets for sustainable development, the Paris Agreement will be central to the development of the Arctic.

New challenges and opportunities

Global climate changes are becoming increasingly evident, and the temperature increase in the Arctic is occurring nearly twice as rapidly as in the rest of the world. A warmer climate has devastating consequences for the environment and people, both locally and globally. The climate changes are also driving increased economic activity, causing geopolitical interest in the Arctic to grow in pace with the melting of the polar ice caps. For the four million people who live and

work in the Arctic, the changes and greater interest entail new challenges and opportunities.

Arctic of major interest to the EU

New transport routes, supplies of raw material, sensitive environments and the current security policies make the Arctic of major interest to the European Union. The EU therefore adopted an integrated EU policy for the Arctic in 2016 with a focus on the environmental, economic and social challenges that the people in the region are facing. The policy addresses three prioritised areas of policy: the environment and climate, sustainable regional development and greater international cooperation.

The EU Member States have extensive responsibility for the environmental and security policies in the Arctic. With regard to sustainable regional development, it is mainly the regions in Arctic Europe that have the preconditions for realising the EU policies. Innovation and growth require continued support for regional development in the sparsely populated areas in northern Sweden and northern Finland, as well as Denmark (through Greenland). The EU policy especially emphasizes the need for greater cooperation between local, regional, national and global actors.

Norrbotten plays a significant role

Complex challenges require broad collaboration between actors at multiple levels with several different perspectives. Therefore, Norrbotten's role as a regional actor in the Arctic may become significant when the EU policies are to be carried out. An active Arctic policy presupposes a greater awareness among more actors in Norrbotten. Knowledge and understanding of Norrbotten's challenges and opportunities need to be promoted and discussed by political representatives, in both new and established Arctic forums.

With its geographical location at the centre of Arctic Europe, Norrbotten has a long tradition of cross-border cooperation. Together, the regions in the area have promising potential for greater collaboration in order to create better conditions for sustainable

growth. Norrbotten can thereby contribute to the implementation of both Sweden's Arctic strategy and the EU's integrated policy for the Arctic.

Arctic expertise to count on

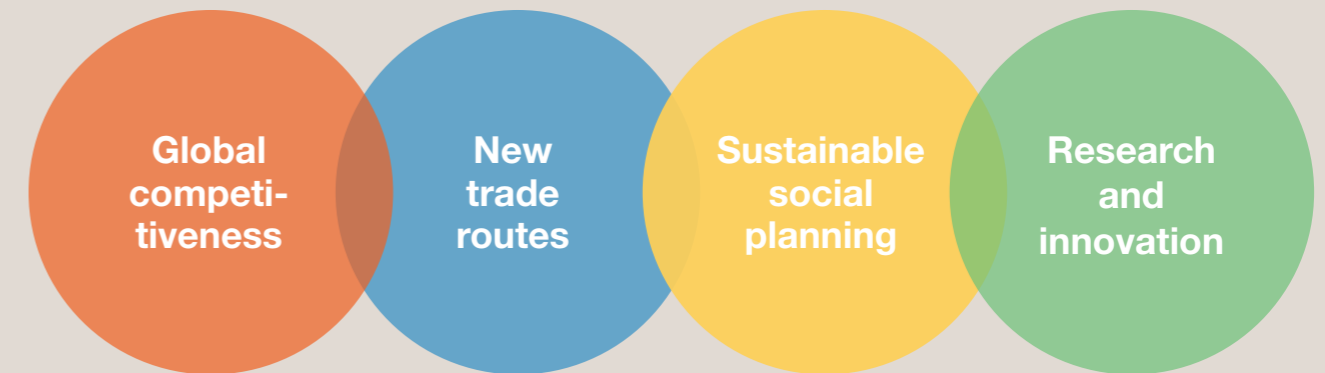
Global interest in the Arctic offers Norrbotten the opportunity to profile and position itself as a competitive Arctic region. Arctic expertise can be described as the ability to create sustainable growth and development in areas with a cold climate, long distances, sparse population and a sensitive environment. The region's development is driven by people's innovative ideas, approaches and solutions to Arctic challenges.

Norrbotten's ability to combine perspectives for sustainable development of the Arctic living environment makes its communities attractive. Arctic research, testing and innovation make the business community competitive. New trade routes combined with a greater Arctic awareness provide the county with access to a larger market.



Four prioritised areas

Politicians in Norrbotten have identified and prioritised four areas that are crucial to the region's sustainable development.



Besides prioritisations in the various areas, the policies should also work by:

- Deciding on clear standpoints for a sustainable development of Norrbotten in the Arctic
- Getting involved and participating in various Arctic arenas and networks
- Strengthening political collaboration and creating consensus with the neighbouring countries in strategically important issues
- Defining prioritised areas and investing resources
- Spreading knowledge in the region that Norrbotten is a part of the Arctic
- Continuing to develop the dialogue and collaboration with the national level
- Setting priorities based on the areas of collaboration that the universities in the three European Arctic countries have agreed to develop
- Utilising people's knowledge and experience of living and working in areas with a cold climate, long distances and a sensitive environment
- Creating conditions for Norrbotten to be developed into an innovative Arctic centre

Sustainability and Arctic awareness make industry globally competitive

The economic trend in the world is increasingly characterised by greater flexibility and digitisation. In parallel with technical development, the economy has been globalised and markets integrated, which has meant that companies' markets have grown at the same time that competition has increased. National and regional competitiveness and attractiveness have become prerequisites for economic development. The winners in the global economy are often the countries and regions that have successfully adapted to the new conditions through investments in production capital, human capital, infrastructure, research and development.

A study of future industry carried out by Swerea¹ mentions three global drivers that create new prerequisites for Swedish and international industry:

- **The technical revolution:** robotisation, knowledge automation and the Internet of Things create new conditions for both innovation and production.
- **The idea revolution:** information, ideas and thoughts become new commodities, thinking becomes new production and concepts become new products – and products in themselves only become raw materials in the customers' value-creating processes.

- **The development revolution:** shifts the world's economic and innovation centre of gravity to new, fast-growing economies.

There is considerable interest in the Arctic. The area is on the way to becoming a global arena for growth, and through a greater Arctic awareness, the geographical location can become a competitive advantage for industry in Norrbotten. Sustainable development of the Arctic is therefore both about handling climate changes and utilising the greater global interest to create growth.

High innovative capacity

Industry is preparing for a different business logic, from product to ecosystem – which means that business models are changing. Norrbotten can develop new sustainable systems with global potential based on natural resources, such as minerals, forests, nature, tourism, energy and space. Innovation, digitisation and investment mean that the region can provide sustainable industrial solutions to a larger market.

Climate and sparse settlement are Arctic conditions that give Norrbotten unique possibilities for e.g. testing activities in various sectors, such as IT, energy, space and transport. The region's innovative capacity means that exports of Arctic expertise in, for example, mining and minerals, energy, data, testing and space, can create future growth. Innovations and new ways

of working in health, nursing and care, such as distance-spanning technology, provide greater effectiveness and create new business opportunities.

Equality and sustainability attract employees

Access to labour is fundamental to the development of industry in the Arctic. The companies that have succeeded in broadening their recruitment base in Norrbotten have worked purposefully on equality and diversity. Successful industries have ensured decent working conditions with regard to safety, the working environment and consideration of the environment. Sustainability is therefore a crucial success factor to secure the supply of expertise and create economic growth.

Environmental sustainability creates competitive advantages in several industries, such as the food industry and tourism. Mineral mining and related industries are of major significance to the development of sustainable high-tech industrial applications. For example, future steel production has the goal of being entirely free from carbon dioxide emissions.

Forest raw materials offer major growth potential

The forest industry has long been an important sector in Norrbotten, with large exports of building and wood products. Expertise in sustainable construction in an Arctic climate is a competitive advantage. In the bio-economy, forest raw materials have a major growth potential with a higher added value, such as bio-based component manufacturing and sustainable bioenergy.

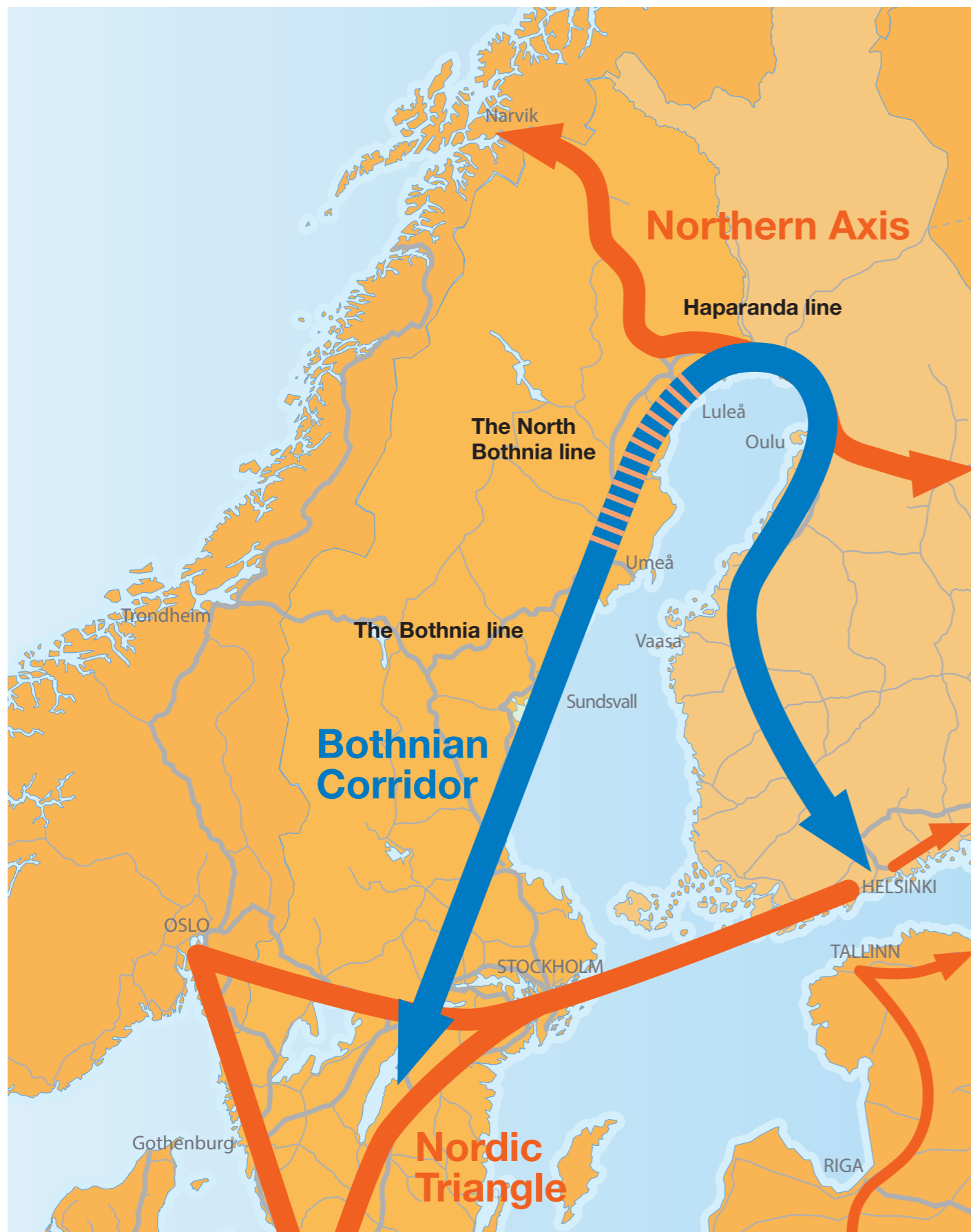
Greater global competition leads to companies more rarely maintaining their own stock, which increases dependence on delivery reliability, flexibility and short lead times. The demand for functioning transport logistics is therefore extensive, and in some cases, robust logistical solutions can be crucial to a new deal. The effects of deficient infrastructure can undermine companies' chances of expanding their markets.



Priorities for global competitiveness

- Support commercialisation of sustainable development in mining and minerals, data, energy and space
- Secure investments in greater international business activities
- Promote business networks that provide access to international markets
- Strengthen the ability of small and medium-sized businesses to act internationally
- Prioritise efforts to attract investments to Norrbotten
- Influence legislation to remove obstacles to cross-border cooperation

¹ Swerea, 2015: *Future industry – where we are heading and why.*



New Arctic trade routes provide new opportunities

Sustainable infrastructure generates economic growth and development. An increasingly globalised market makes transport and communication crucial to the competitiveness of enterprise. Norrbotten has long distances to markets within Sweden and abroad, which places high demands on efficient use of various means of transport for both people and goods. Well-functioning freight and passenger transportation demands a cohesive sustainable transport system, with improvements mainly in the road and railway networks, but also in shipping and aviation transport.

New shipping lanes

The consequences of the global climate changes will be especially distinct in the Arctic when the Arctic Ocean melts. Open water absorbs solar heat, which further speeds the reduction of ocean ice and risks destroying sensitive ecosystems in the long term. At the same time, the critical climate changes create new opportunities to develop shipping in the Arctic for the benefit of the communities and business, as shipping lanes open for a growing part of the year.

New trade routes through the Northeast Passage are estimated to reduce the transport time between Europe and East Asia by up to 40 percent. When the maritime route is shortened, what today takes 35 days, will take 13 days less. For example, the distance from Rotterdam to Yokohama becomes 7,400 km shorter, and the transport costs are estimated to

drop by around SEK 1.5 million per journey. At the same time, developed shipping and greater activity in the area demands greater consideration of security and the environment.

Potential in satellite and telecommunications

New fibre cables on the sea floor from Europe to Asia and North America are expected to shorten time lag considerably, creating more business opportunities as the market demand for transmission capacity increases. Development of satellite-based infrastructure for communication and surveillance provides both business opportunities and greater security. In Norrbotten, there is potential to further develop the infrastructure for satellite and telecommunication, which among other things demands continued investments in broadband expansion.

Important green freight corridor

The Bothnian corridor ties together northern Sweden's export-dependent economy with the world market, and enables transport of large freight volumes from northern Sweden and Finland. The corridor is a part of the EU's main network and can constitute one of Europe's most important freight transport corridors through an extension of the main network corridor Scandinavian Mediterranean, of which the Bothnian corridor is a part. The Bothnian corridor also ties

together the system with the Northern Axis east-west transport corridor, which provides opportunities for markets in central Russia and Asia.

Sustainable, efficient, secure and reliable transport of goods and people creates growth through access to more and new markets at the same time as emissions decrease sharply. A well-developed and accessible transport system can also contribute to reduced travel times, greater cohesion and improved health. In this way, the Bothnian corridor contributes to greater social and environmentally sustainable development.

Aviation is significant

Long distances to important markets demand availability where flight connections are of crucial significance to Norrbotten's development. To be able to strengthen east-west collaboration in the public sector, the private sector and academia, a significant effort is being made, for example, on an aviation link between Oulu-Luleå-Tromsø. For accessibility, night train service is also of crucial significance, both for tourism and for business and leisure travel.

In a coherent transport system over national borders, possibilities are created of developing Norrbotten's position into an Arctic transport hub. At the same time, there are formal trade and border barriers that need to be resolved, such as VAT rules and national technical rules.

Infrastructure is crucial

Norrbotten's dependence on various modes of transport places high demands on developing effective, resource-efficient and socially sustainable transport solutions. Global climate changes demand extensive efforts to reduce greenhouse gases, such as through the development of alternative fuels for vehicles, aviation and shipping.

Efficient and well-functioning infrastructure is a prerequisite for business in Norrbotten to be able to create new jobs, generate export revenues and contribute to shared prosperity. This is of major benefit to the whole of Sweden and contributes to creating

European added value. Sustainable infrastructure is also crucial to create attractive communities.



Priorities for new trade routes

- Work for the Bothnian corridor to be a part of the main network corridor Scandinavian Mediterranean, and continue efforts for east-west transportation
- Promote opportunities for flight connections to and from Norrbotten
- Influence the national level to act for joint infrastructure projects in the Joint Barents Transport Plan
- Work for interconnection of various transport systems in Arctic Europe
- Secure investments in continued expansion of broadband
- Influence the national level for investments in sustainable transport solutions

Sustainable Arctic social planning

Together with northern Norway and northern Finland, northern Sweden and Norrbotten have the strongest population centre in the Arctic region. These regions are facing demographic challenges with an ageing population, which has consequences for the labour market and public services. In general, people are living longer at the same time that young people are moving south. Attracting people to Arctic communities demands sustainable social planning and social innovations.

Greater global interest in the Arctic has created an awareness among people who live and work in the Arctic of the unique assets and challenges that exist in the area. Society's ability to combine different perspectives for sustainable regional development is crucial to Norrbotten's attractiveness and competitiveness.

Unique Arctic lifestyle

Sustainable development is based on environmental, social and cultural sustainability where economic sustainability is a means. Communities and businesses will need to prioritise efforts that meet all of the sustainability criteria to a greater extent. For example, the cultural dimension will have to be integrated more in social planning.

With Arctic nature and climate, Norrbotten has unique opportunities to foster an attractive and creative living environment. Cultural and natural resources can contribute to an Arctic lifestyle. Sami culture and

business are a part of the unique characteristics in the region's social development. The combination of urban living environments and those close to nature, as well as lower overhead costs for housing and leisure time make it attractive.

Developing inter-personal value

The greater need of citizens for movement demands accessibility and public transport, primarily for young people. An attractive society needs to include all groups in the development and design of residential environments and public spaces. Despite long distances, the experience is often that people are close together in Norrbotten, which provides conditions to develop inter-personal value, such as social sustainability, equality and diversity.

Civil society plays a crucial role in the establishment and integration of new arrivals. Social interaction creates networks between people, provides support and contact. A sustainable society is inclusive and provides all people with equal opportunity to develop, acquire knowledge and conditions for good health. The public sector and civil society collaborate to contribute to security, health, formative education, culture and increased quality of life.

Norrbotten has unique conditions to develop attractive places and residential environments. A long tradition of building in a cold climate, combined with research and new technology, provides opportunities

to create energy-efficient and sustainable smart solutions. The urban changes in the ore fields provide the region with experience and the potential for commercialising Arctic expertise and creating new business opportunities.

Digitisation shortens distances

Digitisation makes Arctic communities more attractive and safe for people to live and work in. Development and establishment of the e-society with new public services that enable more efficient ways of working and smarter services, such as e-health, mean that the population gains access to healthcare and service regardless of distance.

The capacity for renewal in interaction with others is the driver for creating viable businesses and sustainable, attractive communities. Living environments, cultural heritage and public service are important factors that affect people's health, well-being and desire to live and work in Norrbotten.

As a result of global warming, the Arctic can offer environments which people seek out to escape both conflicts and climate changes, with economic and social consequences. To meet demographic challenges and the need for expertise, Norrbotten should involve and include people of various backgrounds. New knowledge and new people are crucial to the development and renewal of attractive communities.

Priorities for sustainable social planning

- Stimulate relocation to the area by showing the potential of attractive residential and living environments
- Promote a culture of creativity and innovative thinking where young people have the chance to realise their ideas and influence the development of society
- Secure efforts for an equal, open and multicultural Arctic society
- Invest in digitisation for better accessibility of service in both urban and rural areas
- Support a greater cross-border exchange in culture, sports and education
- Promote the development of sustainable social planning and sustainable construction in the Arctic climate
- Influence the national level to review the housing policy for greater building



Photo: Patrick Degerman/Synk



Photo: Kent Norberg



Photo: Anders Alm/Synk

Research, education, development and innovation in an Arctic environment

Norrbottnens capacity for renewal and innovation is crucial to the region's competitiveness. For new ideas, approaches and solutions to Arctic challenges, both applied research and world-leading, cutting-edge research are needed, as well as access to competent and well-educated labour with educational opportunities in the entire region, as well as inclusive meeting places to exchange experiences and Arctic expertise.

Together with the county's research institutes, Luleå University of Technology strongly contributes to creating better conditions for innovation and sustainable regional development in Norrbotten. The university's leading Arctic fields have close ties to the needs and business opportunities of the companies. There is a large proportion of applied research that is significant to the growth of business and global competitiveness. The university's role as a recruiter, educator and developer also contributes to a more attractive and more creative society.

World-leading test region

Testing in a cold-climate and experimental environment has a large and growing market, as many people live and work in cold climates. Here, access to clean air and water is a competitive advantage. In an increasingly globalised world with greater mobility and

high customer standards, products and services have to work in all climates and under difficult conditions. Testing drives regional development as it combines research and application, stimulates a creative environment that links together local and global perspectives, and identifies and investigates Arctic strengths.

Norrbottnen is a world-leading Arctic testing region that offers cold winters with a high level of accessibility and an environment that offers large areas where testing can be done with little disruption. The region has a high level of IT expertise and a relatively strong infrastructure. With greater Arctic awareness, Norrbotten can develop synergies between different test clusters and utilise creative environments and infrastructure to offer what cannot be offered anywhere else.

Cross-border cooperation

A collaborative agreement has been established between Luleå University of Technology, the University of Tromsø, the University of Oulu and the University of Lapland. The aim is to strengthen areas where the universities currently have high levels of Arctic expertise, and thereby also increase attractiveness for students to study and conduct research in Arctic Europe. This collaboration means that the universities can

together compete for and attract research resources. The universities initially defined three areas of cooperation: **energy, mining and health**.

- In the research field of energy, research is under way in solar, wind and hydroelectric power in the Arctic climate, as well as thermochemical and biochemical conversion of biomass to energy, fuel and chemicals, and social science studies to create a sustainable energy system.
- In the research field of mining, collaboration is deepening around an education focused on sustainable mining in the Arctic, and builds further on established cooperation between Luleå University and the University of Oulu on master's programmes and the option of obtaining dual degrees from two of the universities.
- In the research field of health, collaboration is under way for joint development and use of digital technology for equal care and service; for example, projects with so-called gamification solutions to improve people's health, and robotics development in elderly care. Interdisciplinary collaboration is also under way within social planning to involve citizens in the sparsely populated areas, and thereby secure sustainable built environments and quality of life in the Arctic.

The ambition is to broaden cooperation and find new shared fields of research. The Arctic universities are discussing joint efforts in data management, space technology, music and theatre, engineering technology and construction technology, to name a few. To support sustainable regional development, more analyses are needed into Arctic social development and construction research in Arctic environments.

Safeguarding the climate of innovation

A success factor for Norrbotten is to continue developing the good innovation climate. New ideas, new ways of thinking and acting do not arise just through research and education. It is often in collaboration between different sectors that people find new solutions. The collaboration between business, academia and the public sector can be further intensified to jointly strengthen Norrbotten as an Arctic innovative region with world-class applied research.

Priorities for research and innovation

- Strengthen the dialogue of society and the business community with Luleå University of Technology and other universities and research institutes
- Prioritise international efforts for Arctic collaboration
- Support investments in R&D and innovations for greater sustainable growth and development in the Arctic
- Create conditions for commercialisation of innovations that lead to service and product development with higher added value
- Strengthen incubators and company development for diversification of the business community
- Prioritise investments in the development of Norrbotten as a sustainable Arctic test region



Photo: Patrick Degerman/Synk



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