POKAT 202I

North Karelia's Regional Strategic Programme for 2018–2021

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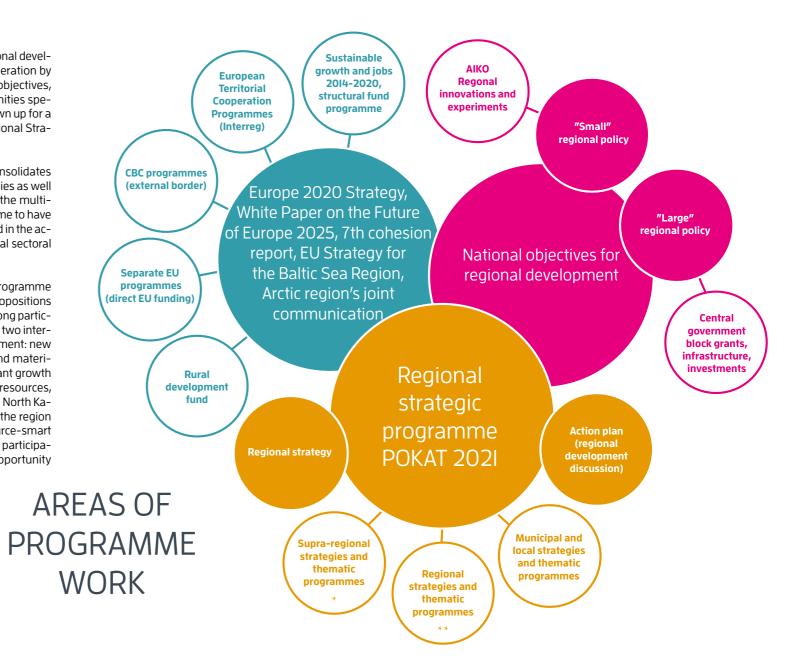
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Foreword

The regional strategic programme is a statutory regional development programme that must be taken into consideration by the authorities. It states the regional development objectives, which are based on the characteristics and opportunities specific to the region in question. The programme is drawn up for a four-year period. The POKAT 2021 North Karelia Regional Strategic Programme is for the period 2018–2021.

The regional strategic programme describes and consolidates EU, national, supraregional and regional level strategies as well as the municipal and local level strategies. Despite the multisectoral overall approach, the aim is for the programme to have specific focus areas. Concrete measures are described in the action plan of the strategic programme and in individual sectoral strategies and action plans.

POKAT 2021 is the North Karelia Regional Strategic Programme for the 2018–2021 period. The programme's vision propositions are: smart specialisation, an oil-free region and life-long participation. The core of smart specialisation is formed by two international-level expertise areas for economic development: new solutions in forest bioeconomy, and technologies and materials as drivers of growth. The region also has significant growth potential in mining and tourism. In terms of natural resources, agriculture and food production play important roles. North Karelia is aiming to become non-reliant on fossil fuels: the region seeks to be at the forefront of sustainable and resource-smart production and use of renewable energies. Life-long participation is about seeing the ageing population as an opportunity rather than just as a challenge.



- operating environment
- iob-friendly economic structure
- Well-being from partnerships Comfortable living

and highly appealing operating environment in North Karelia. It means good accessibility and well-functioning transport routes The regional strategic programme has four overarching themes: and connections. North Karelia is active in various national and international networks.

Growth from renewal means building a diverse, sustainable and job-friendly economic structure. Strengthening the competitiveness of local economy and businesses is the central element of this focus area. In particular, there is a strong focus on smart specialisation choices without forgetting the diversity of the economic structure.

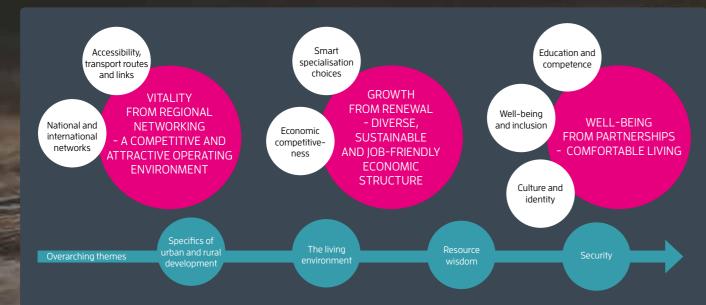
- Vitality from regional networking Good accessibility and The development of the operational environment and economic growth are aimed at supporting residents' well-being – in other Growth from renewal – A diverse, sustainable and words, ensuring comfortable daily lives. Educational standards are high, and the necessary competence areas are supported as needed. Welfare services are well-functioning, and citizens' active participation in welfare development is supported. North Vitality from regional networking means creating a competitive Karelian culture is valued, and the region has a strong identity.

 - the "housing and living environment" theme highlights critical issues related to the region's appeal and profile,
 - the "specifics of urban and rural development" theme ensures that development within the region is well-balanced,
 - resource wisdom offers multisectoral opportunities, and,
 - as a new theme, the programme highlights security as a broad-based concept.

The specific characteristics of urban areas, suburban regions, rural and sparsely populated areas are recognised and used as the basis for development efforts. Housing and living environments are pleasant and safe. The "resource wisdom" approach means using natural resources in a sustainable and efficient manner and supporting circular economy. Security at various levels is part of citizens' well-being and comfortable living. These dimensions are ensured through partnerships and cooperation.

The regional strategic programme steers the use of EU funds and other resources allocated to the region. The annual level of funding is estimated to be approximately €170 million. The POKAT 2021 Regional Strategic Programme 2018–2021 was approved by the Regional Assembly in December 2017.

POKAT 2021 FOCUS AREAS



- Smart Specialisation Smart Growth: North Karelia invests in selected productive sectors. The goal is to increase region's enterprises' international competitiveness
- Oil free region Sustainable Growth: Emerging bioeconomy and climate change consideration provide good opportunities for resource efficient activities in North Karelia. The objective to become a region that is free from fossil oil is demanding but realistic

Life-long participation – Inclusive Growth: Population ageing is both a challenge and an opportunity for the region. By activating people of different age groups the region wishes to be recognized as the home region of people of all ages

Vision of the POKAT 2021 Programme

Smart Specialisation – Smart Growth

Oil free region – Sustainable Growth

Life-long participation -**Inclusive Growth**

North Karelia invests in selected productive sectors. The goal is to increase region's enterprises' international competitiveness

Emerging bioeconomy and climate change consideration provide good opportunities for resource efficient activities in North Karelia. The objective to become a region that is free from fossil oil is demanding but realistic

Population ageing is both a challenge and an opportunity for the region. By activating people of different age groups the region wishes to be recognized as the home region of people of all ages

Current state of North Karelia

In the current decade, North Karelia has seen stronger economic development than the national average. The forecasts were less favourable for a while, but improvement in the general economic outlook has also led to increased confidence in the region. For North Karelia, Finland's economic growth is a positive as well as a potential cause for concern, as it can affect the region's net population and availability of skilled workforce. There are already some signs of a weakened trend in internal migration.

North Karelia's population is declining: in 2016, it fell by 670. In recent years, population decline has been the result of natural causes, as the number of deaths has been higher than the number of births, and this gap has continued to increase. In 2016, the number of births was the lowest recorded (I,420) and, conversely, the number of deaths was the highest recorded (2,05I). Figures for January–July 2017 show an even weaker trend.

The net migration figure for North Karelia fell by 28 in 2016 after seven years of net gains. Between 2009 and 2015, North Karelia had a net gain of around 300-500 people each year. In 2016, net migration was 484 and not guite enough to compensate for internal migration loss (5I2). The figures have continued to decline in the current year. In particular, this has been caused by internal migration. In January-July 2017, the population of North Karelia declined by I,063 people, and the net loss nearly doubled year on year (-560). Although student migration will improve the situation in the autumn, the overall trend appears to have declined.

Since December 2015, North Karelia has had one of the highest unemployment rates in the whole of Finland. At the end of July, the figure was 17.9%. This was 5.4% higher than the national average and 2.6% higher than in Lapland, which had the second-highest unemployment rate. Despite the high unemployment rate, there are also positive developments: the total number of unemployed is falling, as is the unemployment rate among under-25s. In contrast, the number of long-term unemployed continues to increase, even though nationally the trend has turned. The activation service has 4,000-5,000 customers on a continuous basis, which is equivalent to 6-7% of the labour force. This means that the combined unemployment figure (unemployed job-seekers and those accessing services) was around 18,000 at the end of 2016.

On the plus side, this means that when labour demand increases, the region should have plenty of skilled workers to meet the demand. This is particularly important in light of the region's other challenges, namely the ageing population and high retirement rate. The region's working age population is declining at a significantly faster rate than the national average, which means that the availability of skilled labour force and the matchability of qualifications are key challenges that must be addressed in order to prevent stalling growth due to skills shortages, which are already evident in certain job categories and even in some whole sectors (technology industry). Another potential threat already showing signs is population loss due to stronger growth elsewhere in the country.

The relatively good trend of the business sector turned at the end of 2014, as turnover figures began to decline. Total business turnover remained at the same level in 2015 before it began to grow again in the second quarter of 2016. The positive trend continued in the last two guarters of the year. Total turnover growth (+2.3%) in North Karelia's business sector was one tenth of a percent lower than the national growth average. Although not all sectors saw growth, the positive trend was nevertheless widespread. Solid figures were posted by all primary sectors as well as manufacturing, construction, retail and services. Turnover growth was still strong in the first guarter of 2017, albeit slightly below the national average.

The technology industry-led exports of North Karelia continue to be strong. Exports play an important role in the development of the region's industry, since more than half of its industrial output is exported. Exports continued to grow during the downturn,

although the 2016 growth figure, at 2.5%, was low compared with the 2015 figure (+8.6%). Nevertheless, the figure is better than the national average (-0.1%) and the outlook is encouraging.

Cuts in education funding in recent years have had a significant impact in North Karelia, since education is an important sector for the region. On the other hand, the challenging funding situation has led to better efficiency in the education system, and North Karelia has retained its position as a strong performer in education. In university education, the region continues to solidify its position. The decision of the University of Eastern Finland to close down its teacher education unit in Savonlinna will help to strengthen the provision of teacher education in Joensuu and bring more students to North Karelia. The decision is highly significant for the region's economy, as it will lead to more investment in construction (facilities and housing) as well as increased demand for services.

Current construction projects include a new parking facility underneath the marketplace of Joensuu. House-building in Joensuu and surrounding areas is at a good level, and the market is being boosted by growing household confidence. Notable wood construction projects are also under way in Joensuu; for example, Finland's tallest wooden apartment block has just been granted planning permission. The role of Joensuu as a growth centre and the decision on teacher education will give the region a boost in the coming years. There are also significant construction projects under way or in the planning stages in other parts of the region. The planned bioeconomy investments in Pielinen Karelia would have major effects on the region's economy. Bioeconomy offers growth potential for other parts of the region as well as Pielinen Karelia.

Reduction in the number of border crossings from Russia at Niirala began to slow down in 2016, and the end of the year and early 2017 showed an upward trend in the figures. The value

of duty-free sales also began to grow late last year, and shopping tourism from Russia is clearly increasing: in the first seven months of 2017 the change was +68%.

The operational economy of local authorities in North Karelia has been catching up with the national average in recent years. The annual balance, an indicator of local authorities' economic standing, is now better than elsewhere in the country. However, it should be noted that this has been achieved through clearly higher levels of local tax than the national average. The weighted income tax rate (20.78) of North Karelia municipalities in 2017 is almost a whole percentage point higher than the national average, and the seventh highest of Finnish regions.

All in all, North Karelia has good foundations for future success. Confidence is boosted by the region's diverse economic structure and its many strength areas (e.g. security/lock industry, forestry and forest machine industry, bioenergy, nanotechnology, photonics, the metal, plastic and composite industries, ICT, environmental engineering, food manufacturing, mining and service centres), a broad skills base, a vibrant construction sector and a positive trend in exports. The fact that national growth is also set to increase, from domestic demand to exports, is a good sign for exporters in North Karelia.

Despite the upturn, the autumn 2017 SME barometer showed +20 for economic outlook: the figure was the same as in 2016, and the joint lowest of all regions along with Kainuu (the whole country: +38). Despite the many positive signs, the current situation is a watershed moment: the region's development potential and international economic opportunities must be exploited and converted into jobs so as to prevent the region from losing its growth advantages as a result of the improving economic conditions of Finland as a whole.



Focus areas of the Regional Strategic Programme

I. Vitality from regional networking – Good accessibility and operating environment

Accessibility, transport routes and connections

National and international networks

The region's accessibility is one of the key starting points of its local economies and other development areas. Competitiveness and physical operations rely on a well-functioning transport system. For a region such as North Karelia, the time it takes to travel to and from key sites of cooperation and business activities is particularly important. A well-functioning transport system, which includes public transport, road and rail connections, water routes, the service level of air traffic, and an up-to-date telecommunications network, is a prerequisite for the region's development. It is particularly important that the needs of businesses are incorporated into transport planning as early as possible.

The development of North Karelia's transport system is aimed at supporting the region's economic development and offering a reasonable mobility service level for all population groups across the region. Key goals include the provision of safe and smooth everyday travel and measures to enhance the region's competitiveness. The joint transport strategy for Eastern Finland also informs the development of North Karelia's transport system.

The areas of development are:

- Telecommunications
- Road transport
- Rail transport
- Aviation
- Water transport
- Public transport
- Promotion of oil-free transportation in North Karelia
- Long-term transport planning

There are a number of administrative networks for regional development. Legislation on regional development defines the regional cooperation areas for joint development activities under regional councils. North Karelia is part of the joint regional development unit which consists of the regions of Eastern Finland (North Karelia, South Savo and North Savo). There are also regional advisory boards established by regional councils on a voluntary basis. The East Finland Advisory Board includes South Savo, North Savo, North Karelia, Kainuu and South Karelia.

Central government agencies for regional administration include Centres for Economic Development, Transport and the Environment (ELY Centres) and regional state administrative agencies. The North Karelia ELY Centre has the Economic Development and Environment areas of responsibility. The North Savo ELY Centre is responsible for Transport in North Karelia, and the South Savo ELY Centre is responsible for structural fund administration. North Karelia is part of the responsibility area of the Regional State Administrative Agency. The regional administration system will change in conjunction with the regional government reform.

In the NUTS 2 regional classification of the EU, North Karelia is part of the same region with seven other regions of Eastern and Northern Finland. The division serves as the basis of e.g. structural fund activity, which also determines the central part of funding for the regional strategic programme. With regard to historically important cooperation with Russia in the eastern border areas, the regional classification of EU programmes is determined so that Kainuu and North Karelia with Northern Ostrobothnia have cooperation with the Republic of Karelia.



International activities

Internationality is a core value in development activity, and international activity should take place at all levels as part of normal activities. Internationality delivers added value in activities, but as such it is no longer a separate, additional part of activities in today's operating environment. Internationality starts with internationalisation at home, which is enabled by low-threshold opportunities. All international activities require courage and ambition and are based on the general approach to strengthening the brand of Finland as a country.

For North Karelia, internationality is the cornerstone of the region's competitiveness and vitality. The main factors of accessibility in economy – the logistics system and operating environment – are increasingly important to the region's sustainable development and growth. In the international operating environment, the region and its operators must be agile and adaptable in order to rapidly anticipate and exploit future trends and prepare for sudden changes. This area needs local expertise as well as efficient networking with sources of world-class knowledge and competencies.

Using the opportunities of the international operating environment requires cooperation, a high-quality operating environment and a range of support mechanisms, for example, to facilitate market entry for businesses. EU countries continue to be the main market of the region's businesses. The most important export destinations in 2016 were Germany (I3.9 %), Sweden (I2.7 %), China (II.6 %) and Russia (7.2 %). Other important export countries include the UK (5.9 %) and France (4.9 %). All in all, the region's businesses export products to I06 countries.

Development areas:

- Internationality in areas of excellence
- Cooperation platforms and networks for areas of excellence
- Internationality of economic operators
- Funding (programmes) as facilitators of international activity now and in the future

Cooperation with Russia

The closeness of Russia is seen as a significant opportunity in North Karelia. Long-standing trade relations, broad-based knowledge of Russia among businesses and other operators, and natural cross-border interactions between people are strengths which provide a solid foundation for the development of cross-border cooperation in different sectors.

Russia-related activities are linked to the focus areas of the regional strategic programme: the development of the operating environment, the strengthening of the economic structure, and everyday well-being. The main aims for leveraging the vicinity of Russia include promoting trade with Russia, increasing the volume of border traffic, strengthening the operators' knowledge of Russia, developing competence clusters, and promoting everyday well-being and interaction between the Finnish-born population and Russian immigrants.

In order to strengthen business contacts with Russia, it is important to get new businesses - especially SMEs - involved in trade with Russia and help businesses build new contacts with the Republic of Karelia and other potential areas in Russia. In order to increase the volume of border traffic and improve safety, road planning for the Onkamo-Niirala section of National Road 9 must continue, and the central government should be lobbied so as to secure funding for the project as part of the development of the national road network. In order to secure well-functioning border traffic, border authorities must have sufficient operational resources. Rail container services via Niirala will be increased by promoting the start of a regular rail link known as "Karelian Silk Road", which would run from China across Russia and through North Karelia all the way to the north of Norway. The development and marketing of Niirala as a logistics centre of Karelia and an attractive trading place will continue according to Niirala Masterplan 2025. In tourism marketing, Russia continues to be one of North Karelia's main markets. Joined-up marketing of North Karelia as a hub for expertise on Russia will be enhanced in order to attract businesses and RDI funding to North Karelia. Interaction and encounters between Russian-speaking and Finnish-born groups in North Karelia will be promoted in order to enhance people's everyday well-being and to combat prejudice. Cross-border interaction among children and young people and their interest in Russian language and culture will be promoted.

Development areas:

- Promotion of Russian trade
- Increasing and facilitating border traffic
- Strengthening expertise on Russia and competence clusters
- Promoting everyday well-being and interaction

Forest bioeconomy

The introduction and development of new solutions in the for- Internal trade and business play an important role in North Ka- North Karelia is a geologically, economically and politically staest bioeconomy, circular economy and cleantech sectors and the relia's technology industries: over half of sales (approx. €1.2 biluse and production of renewable energies are key areas from lion) come from exports. Traditionally, the strongest sectors have cietal moral standards. In 2016, Finland was ranked the world's the point of view of climate change mitigation. Finland's aim is been machinery and equipment manufacturing and metal prodto become a low-carbon, energy-efficient society that utilises ucts. At the regional level, technology industries account for 44% renewable natural resources and recyclable materials. Bio- and of all exports, and they are arguably one of the cornerstones of circular economy provide new possibilities and business oppor- North Karelia's economy. tunities in the substitution of renewables for fossil fuels and materials. Enabling operators to acquire domestic references for introduction of new solutions.

Current key sectors related to forest bioeconomy are: pulp proufacturing of equipment and machinery for forest bioeconomy applications. The sector will expand in the near future as decentralised biorefinery investments proceed and the demand and value added of wood increase. The export potential and need for skilled workforce will also grow.

Development areas:

- Business development and new investments
- Sustainable use of forests and ensuring the diversity of forest habitats
- Promotion of low-carbon energy production and energy efficiency
- Development of industrial symbioses
- Utilisation of interface solutions

Technology industries

Technology industries directly employ around 6,100 people in the innovations is an important way to develop the sector, as is the region. In recent years, the metal industry has fared better than ning and forecasting are especially important in order to avoid the national average in terms of the number of jobs, especially unexpected developments and potentially adverse consequencas a result of growth in Joensuu and surrounding areas. On the es. A long-term regional mining policy that is aligned with the whole, the number of jobs in technology industries has not grown national and EU-level policies is needed. The European Commisduction, wood products, forest economy, logging and the man- in line with the economic indicators. This is largely explained by sion has expressed the need for increasing the EU's self-suffiproduction reorganisations and productivity improvements. The ciency in critical minerals. difficulty of forecasting job trends in industries is linked to the revolution which is under way in manufacturing: the majority of **Development areas**: new investments do not create new jobs. For example, new solutions in automation, production control and robotics can lead to iob losses or different types of iobs than before.

Development areas:

- Internationalisation of businesses and growth of export business
- Strengthening businesses' adaptability, digital solutions
- Securing the availability of skilled workforce .
- New product innovations and competence clusters

Stone processing and mining

ble, mineral-rich region with good transport links and good sofifth most attractive country for investment and the most attractive country in Europe. North Karelia is among the top sites for ore prospecting. The region is very well placed for developing its mining sector.

Mining is a long-term industry with wide-ranging impacts. Plan-

- Updating of geological data and ensuring its availability
- Development of the region into a hub of operational education for stone processing and mining
- Expansion of the production of rock mass material, construction aggregates and industrial minerals
- Sustainable use of bio-based mineral products, groundwater reservoirs and geothermal resources
- Utilisation of findings from social and environmental studies and improving the public image of the mining industry



Tourism

Food

Tourism is a global growth sector. The megatrends of tourism favour Finland and will continue to do so in the future, and North Karelia is well-placed to respond to them.

However, in national comparison the region's service capacity is small and fragmented, and international tourism has so far been too reliant on the Russian market. Registered overnight siderably lower, at II%. stavs have remained at just under 500,000 for some time now. Development of this sector requires local work, new business In the future, conscious consumers will require clean, organically models and resources.

The vitality of the tourism sector comes from enterprises that are looking for growth, and the success of these businesses must be supported with joint efforts and effective co-marketing activities. In development activities, the criteria of sustainable and respon- health foods, such as mushrooms, herbs and berries. Dairy prosible tourism should be taken into account, as well as safety and duction is clearly the most important production trend for farms. security aspects, which have become increasingly important appeal factors for travel destinations in recent years.

Development objectives:

- Strengthening tourism centres, international competitiveness and product offering
- Enhancing tourism marketing and sales
- Development of event tourism
- Development of ecological and cultural tourism

North Karelia is a strong performer in the food sector and known for its culinary traditions. The region is among Finland's best-performing producers, especially in organic production. In 2016, the total arable land area of North Karelia was 86,000 hectares, of which one guarter, i.e. 21,000 hectares, was used for organic production. The national figure for organic production is con-

certified food of traceable provenance. The potential of healthy foodstuffs will play an increasingly important role in food production, both in fields and in forests. In addition to traditional field crop farming, North Karelia has good foundations to profile itself as an organic producer in the semi-cultivation of forest-origin

Development objectives:

• supporting the production of new innovative food products

attack - states

- supporting growth businesses in the food sector
- development of marketing, distribution logistics and networks
- development of the prerequisites of the dairy industry
- promoting investments in production by improving value added and through specialisation and the development of value-added products
- increasing the production of local and organic produce and health foods
- more efficient use of domestic fish stocks



Smart Specialisation choices

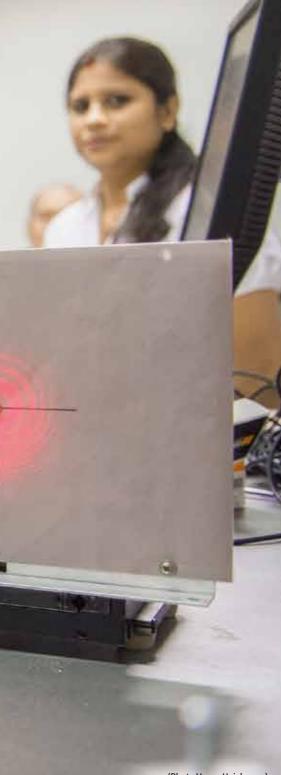
Smart specialisation is part of the EU's cohesion policy and the Europe 2020 strategy that focuses on each region's strengths and the activities that support these strengths. On the regional level, smart specialisation can be understood as representing part of a regional innovation policy that guides and focuses resources to the themes that contain the most potential for the future of the region. Smart specialisation choices can help prioritise the region's key areas of expertise and research and innovation-oriented strengths as well as apply them for the needs of the region's business sector.

The core of North Karelia's smart specialisation is comprised of two essential elements

- I. New solutions for the forest bioeconomy
- 2. Technologies and materials as enablers of growth



SMART SPECIALISATION IN NORTH KARELIA



The forest bioeconomy represents the strongest sector for research and expertise in the entire region. Around 600 experts with various educational backgrounds – from vocational education schools to doctoral degree programmes and research institutes – work in the region's forest bioeconomy sector. Many strong national and international actors are involved in the field, such as the Natural Resources Institute Finland (Luke), the Finnish Forest Centre, the University of Eastern Finland, the European Forest Institute (EFI), Karelia University of Applied Sciences, the Finnish Environment Institute and North Karelia Vocational College of Valtimo. The region contains strong leading companies as well as promising growth companies that focus on global export markets. The forest bioeconomy sector is strongly collaborative in nature. The experts of the field are also well-networked, both at home and abroad.

THE REGION'S AREAS OF EXPERTISE FOR THE FOREST BIOECONOMY ARE:

Forest technology and logging logistics Forestry machinery manufacturing, utilisation of logging methods and technologies	Distributed biorefining Raw material chains for distributed biorefining, the utilisation of side streams, and the refinement technologies and growth of value chains
New biobased products Biobased, high added value products, materials and production technology	Forest information management Service activities that are based on electronic forest information and other wide-ranging utilisation of databanks
Multipurpose use of forests The refinement of the material and immaterial value of forests and the matching of their different forms of use	Renewable energy production and wood construction Distributed energy production and hybrid solutions that are based on renewable energy sources, knowledge environments and demonstration targets for wood construction

Technologies and materials represent a corporately driven entity that focuses on the technology industry. The technology industry is North Karelia's most important RDI sector, as 53 % of all RDI activities are conducted in the companies of the field. The expertise of business life is complemented by the University of Eastern Finland's natural science departments (computer science, chemistry, physics and mathematics), the engineering-related educational expertise of Karelia University of Applied Sciences and North Karelia Municipal Education and Training Consortium, as well as the research and testing environments of these fields.

For technologies and materials, the top expertise that can be found in the region is exceptional, but achieving critical mass is something of a challenge. The region contains many ICT and technology companies as well as some spin off companies from university-level research initiatives that have helped commercialise regional expertise. However, when it comes to volume and mass, the greatest emphasis is still on more traditional engineering workshops and metal companies that feature strong expertise and the flexibility for novel initiatives as well.

THE REGION'S AREAS OF EXPERTISE FOR TECHNOLOGIES AND MATERIALS:				
Photonics Scientific research, technological applications as well as commercialised solutions	Machinery and engineering workshop solutions Machinery and engineering design expertise, manufacturing processes and technologies			
ICT applications Digital solutions in products, services and processes, game development expertise	Chemistry-related materials expertise Scientific research on functional materials and biomaterial analytics			
Precision technique Precision work expertise in the manufacture of optical, mechanical and biomedical components	Extractive industry processing expertise Analytics and processing expertise that serve the stone and extractive sector			



THEMATIC DEVELOPMENT ENTITIES



sessed through more extensive societal change factors. These changes are national and/or global in nature and present opportunities as well as renewal challenges for the creation of busi-

Industrial renewal

Industrial renewal refers to the ongoing and extensive global process of changing industrial competitiveness factors, renewed revenue models, and technological solutions that are revolutionising the operating methods of the manufacturing industry. North Karelia's traditionally strong metal cluster and machine and equipment manufacturing industry are a cornerstone of the region's industrial sector and represent an area where industrial renewal includes the utilisation of e.g. automation, robotics and machine sight applications, as well as other technologies. The business logic of companies is increasingly based on a value creation of customer needs and a business through service solutions.

Agile innovation activities

On the national level, innovation activities are increasingly being directed towards activities that occur through so-called innovation ecosystems. In an innovation ecosystem, business life, companies, research institutes and educational organisations interact within a common network to create new expertise and innovations. The key features of this type of operating model are trust, openness and the exchange of information. North Karelia is host to the Green Hub open innovation platform, where research information is transferred and applied to the product development activities and operations of the companies in the region's forest bioeconomy sector

The public sector as a platform for experimentation and growth

As the population increasingly migrates towards urban regions and centres, these more densely populated urban environments can provide a new kind of experimentation and growth platform for new innovations and business. With reference targets and various pilots, businesses can achieve a competitive advantage and test new solutions. In Joensuu, these kinds of opportunities are related to e.g. the development of a symmetrical city centre and the Green Park business area. The City of Joensuu is implementing its city growth agreement with partners to promote these objectives as well.

Networks and partnerships for top expertise

RDI activities are conducted through networks, various partnerships and collaborative networks. The key factors for the implementation of smart specialisation include networks and partnerships that support the region's top-level expertise. These networks and partnerships should act on both the national and international level. The RDI activities should also include contractual collaborative initiatives and involvement in strategically significant alliances. On the EU level, the S3 platform for smart specialisation helps gather and connect different regions and their expertise. For North Karelia, this activity provides the opportunity for utilising the EU's direct funding instruments and being involved with top-level collaborative consortiums.

Well-being from partnerships



Education and competence

A high-guality, diverse and international educational offering is one of the key attractions of North Karelia. Strong educational organisations and the associated research activities form the ditions and the living environment as well as service provision jectives in terms of growth, vitality and well-being. At the core intellectual capital that is crucial to the region's development. In national comparison, the region's educational offering is competitive in terms of breadth, guality and diversity. The University of Eastern Finland has performed well in many international university rankings.

North Karelia is a significant education region. The diverse, broad-based educational offering and well-established educational and research organisations play an important role in the region's success. The University of Eastern Finland (UEF), Karelia University of Applied Sciences, North Karelia Municipal Edu-trust in society. The region's vitality comes from encounters becation and Training Consortium, (Riveria), the Natural Resources Institute (LUKE), the Geological Survey of Finland (GTK), European Forest Institute (EFI), Centre of Excellence in Social Welfare for Eastern Finland (ISO) and the Finnish Environment Institute (SYKE) provide the competence base which underpins the region's competitiveness and appeal. Experts educated in North Karelia also end up in roles outside the region and in international settings, and a high-quality education system is vital in this regard.

Development areas:

- The region as a significant provider of high-quality education
- Strong partnerships between education, research and the world of work
- Life-long learning and participation

Well-being and inclusion

Well-being and health promotion involves activities targeted at individuals, families, communities, the population, living conto improve the population's well-being and health and to combat disparities between different population groups. Well-being and health promotion includes promotion as well as prevention. Inclusion refers to individual citizens' contributions and sense of belonging, and it is a prerequisite of the region's vitality. Mutual trust, commitment and having a voice are key factors of inprevent marginalisation. Inclusion is based on interaction. Good availability of opportunities for participation and influence help support citizens' personal resources and their engagement and tween its residents and various actors as well as bold experimentation. Work promotes well-being and inclusion.

- Happy and healthy people
- Customer-oriented well-being services supported by welfare entrepreneurship
- High-quality, broad-based skills in well-being
- A safe and comfortable living environment
- Active and participating citizens

Culture, identity and creative industries

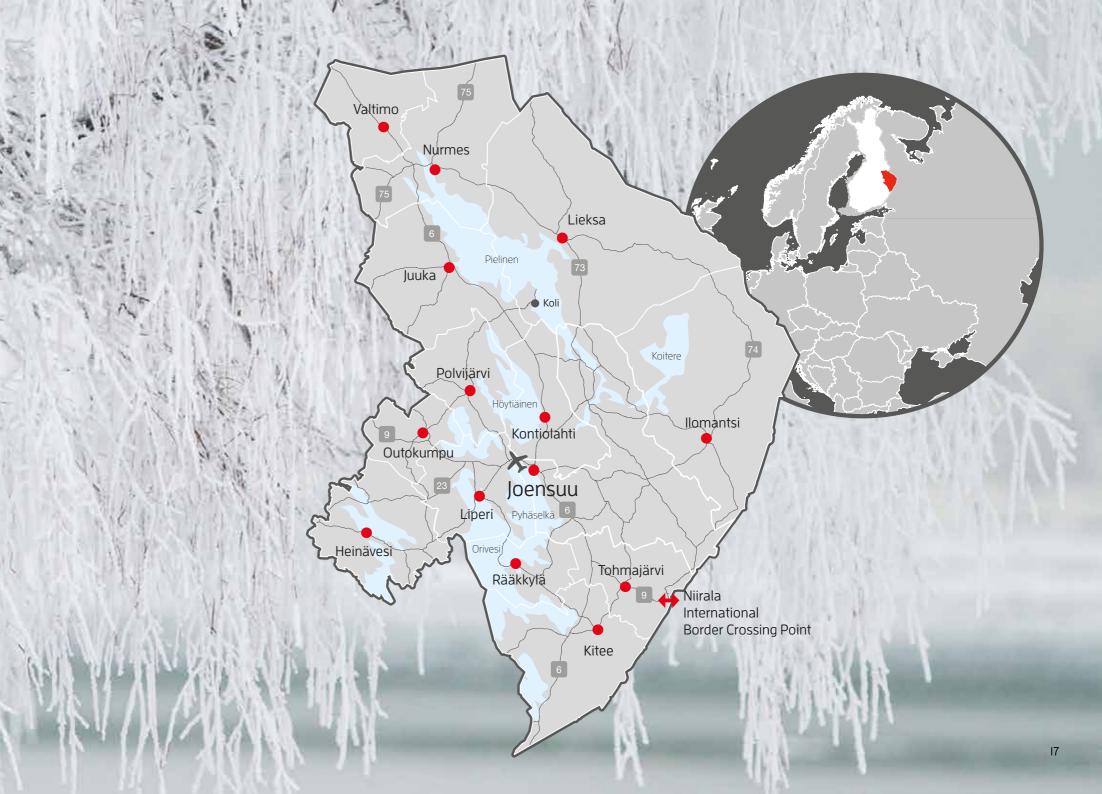
In this programme, the culture and creative industries focus area includes cultural activities that help deliver the programme obof cultural activity are intergenerational transfer of cultural tradition, experiences of making and enjoying art, and needs related to personal growth and self-expression. The basic factors of well-being and enjoyment include a sense of belonging - in a group, in a geographical and cultural area and on their continuum. These factors of identity are not straightforward or self-exclusion. A sense of inclusion promotes well-being and helps to planatory. Identity evolves and adapts depending on its constituent parts and perspective, which must be taken into account when defining and finding ways to foster identity.

> With regard to creative industries, the focus area mainly covers the production aspect of artistic activity and cultural heritage. In other respects, creative industries are, in line with the current government programme, horizontally part of the development of entrepreneurship and employment, in which they offer tools for growth and internationalisation.

Development areas:

- Production, distribution and access to contemporary culture based on service innovations
- A strong regional identity based on the Karelian cultural heritage, the Orthodox influence and contemporary multiculturalism
- Creative businesses and vibrant event production activities
- An appealing and competitive destination for cinema and music productions





The living environment

The community structure of North Karelia is characterised by re-Urban and rural areas have different development needs. In the location from sparsely populated areas into population centres, especially in Joensuu. Over a third of the region's inhabitants live rural areas that do not correspond to administrative boundaries. ble development. It can be promoted by circular economy, matein population centres. Nearly 50% of the population live within a 20-kilometre radius of Joensuu.

Comfortable everyday living means good access to housing, jobs and services. The region's population centres provide core services for all residents, and digitalisation will reduce the need for mobility and facilitate the attractive choice of living in the countryside for many working people. North Karelia offers various attractive living environments, from cities to smaller population centres and rural settings, all with excellent recreational opportunities.

Development areas:

- petitiveness
- increasing interest in the region as an investment site
- recruitment of skilled workforce
- increasing tourism volumes
- appeal as a region in which to study and settle .
- increasing forms of cooperation and synergy benefits between different operators and the development of new models
- the attractiveness of the living environment will be safeguarded by promoting ecological diversity, preventing the introduction of invasive species and restoring water habitats
- diverse natural environments in the immediate vicinity of population centres.

The specifics of urban and rural development

urban/rural classification, North Karelia has distinct urban and The inner and outer city areas of Joensuu and its immediate surroundings form the most densely populated – and thus a highly vibrant - urban centre.

Kitee, Lieksa and Nurmes are classified as rural centres, and each serves as a hub of its local economy. The same applies to Outokumpu. Joensuu and the abovementioned rural centres are surrounded by suburban rural areas, core rural areas and sparsely populated rural areas. The sparsely populated rural area adjacent to the Russian border is the largest joined-up rural area.

• strengthening the region's international appeal and com- Karelia's inhabitants live in rural areas and 46% live in urban areas. On the other hand, only 2% of the region's land area is urban area, but 55% of the region's jobs are located in urban areas. The Joensuu area is home to approximately 4,100 businesses, and is at the forefront of forest bioeconomy and thus well-placed to the other population centres and core rural areas have approximately 6,500 businesses in total. Of holiday homes, only 4% are in urban centres. The remaining 96% are in rural areas - including a significant number in sparsely populated rural areas.

Resource wisdom

Resource wisdom refers to the ability to use various resources in a systematic manner in order to promote well-being and sustainarial life-cycle management, energy and materials efficiency and the adoption of renewable energies. The purpose of the resource wisdom approach is to promote well-being and reduce impacts on the environment and human health. Resource depletion, population growth and climate change will force societies around the world to become more efficient and less polluting. Circular economy, energy efficiency and cooperation among businesses in order to conserve raw materials will become part of everyday lives. Wise use of resources is an international advantage. In the regional development of North Karelia, resource wisdom can be related to renewable energies, energy conservation, vir-In terms of population and commercial operations, 54% of North tual solutions to eliminate the need for physical mobility, transport development, local food, waste reduction, better ecological efficiency in public contracts, more efficient use of space, tourism, and reuse of waste materials by businesses. North Karelia use resources efficiently, which is supported by the strategic objective of eliminating the use of fossil oil.

Development areas:

- Development of energy efficiency
- Development of materials efficiency
- Investments in circular economy
- A low-carbon approach
- Climate change mitigation
- Adapting to climate change

Security

three levels: individual security, national security and international security. The concepts are interconnected, and changes at *icant* competitive advantages from the point of view of security. one level will usually also affect the other levels. The basic cit- The region has high-level expertise in security technology, and izens' rights, including legal protection, are provided for by the it has also developed social innovations in security by creating Constitution of Finland. In the traditional European context, se- new forms of emergency service provision for rural areas. Sufcurity is a broad concept that includes political and military as- ficient border resources (customs and border guard) and their pects as well as human rights, the principle of the constitution-performance are important to North Karelia as a border region, al state, economic freedom, social responsibility and solidarity as are the operability and long-term development of the interin the protection of the environment. Political security refers to national border crossing at Niirala-Värtsilä. the functioning of the state and government and the justification of a government's actions. Economic security refers to ac- Development areas: cess to key markets and resources. Environmental security reguires consideration of environmental factors in lifestyles and production methods. On the other hand, resource depletion and the loss of a healthy living environment can also affect countries' external security.

Security planning, preventive security and preparedness are part of the tasks of Finland's new regional authorities. Regional authorities can also steer security planning at the municipal level. Everyday security is improved by ensuring, through the regional reform, security cooperation structures that enable authorities, economic operators and organisations to engage in broadbased and cross-sectoral cooperation. Individuals are taken into account in regional and municipal security planning in a non-discriminatory and inclusive manner.

Security is a multifaceted concept that is generally divided into The stability of the operating environment and the well-functioning and clean living environments of North Karelia are signif-

- Multisectoral and multi-actor cooperation in societal security
- Securing the prerequisites of economic operators
- Environmental security

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