



SMART SPECIALISATION STRATEGY

SOUTH OSTROBOTHNIA OF TOMORROW

South-Ostrobothnia 2021–2027



ETELÄ-POHJANMAAN LIITTO
Regional Council of South Ostrobothnia





Regional Council of South Ostrobothnia

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SMART SPECIALISATION STRATEGY IN SOUTH OSTROBOTHNIA





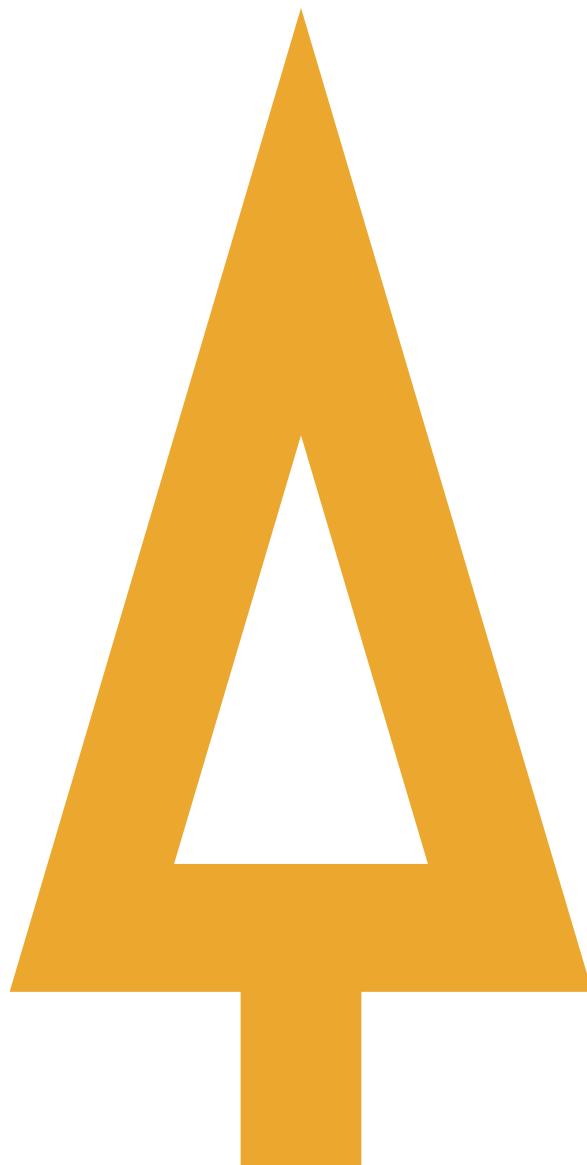
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Introduction

Smart Specialisation Strategy in South Ostrobothnia 2021–2027 is part of the Regional Programme section of the Regional Strategy, South Ostrobothnia of Tomorrow. The Regional Strategy was approved by the Regional Assembly in December 2021.

This summary of South Ostrobothnia's Smart Specialisation Strategy has been compiled especially for those working in international networks and projects.



02



Background for
Smart Specialisation

Smart specialisation means the economic differentiation of regions by focusing on their own areas of strength and growth, as well as business and innovation related to these areas. It is about developing our region's strengths in partnership with other European regions and making more purposeful use of international networks and financial instruments.

The Smart Specialisation Strategy is a key tool for guiding the implementation of the EU's regional and structural policy.

As part of its strategic planning, the Regional Council of South Ostrobothnia is also responsible, at regional level, for the Smart Specialisation Strategy. In South Ostrobothnia, the Smart Specialisation Strategy will be drawn up alongside the Regional Programme and made a part of it.

In accordance with the act on regional development and the implementation of the European Union's regional and structural policy (756/2021, Laki alueiden kehittämisestä ja Euroopan Unionin alue- ja rakennepolitiikan toimeenpanosta; not available in English), a Regional Programme is drawn up every local council term under the leadership of the Regional Council, in cooperation with the municipalities, the Centres for Economic Development, Transport and the Environment, and other regional State authorities and bodies involved in regional development. The Regional Programme is based on a long-term Regional Development Plan.

The structure of the Regional Programme follows the division of the Regional Development Plan into three main development themes: **Stable and Dynamic, Smart and Skilful, Flexible and Sustainable**.

Smart specialisation in South Ostrobothnia is based on the choices made in the region on issues concerning economic and innovation policy. These choices are based on companies' strengths and future opportunities, international-level expertise, and high-quality education and research activities. The Smart Specialisation Strategy aims to promote the renewal of trade and industry and find responses for the future to national, European and global challenges. The objectives of smart specialisation are:

- » **Strengthening innovation ecosystems** (under the theme Smart and Skilful)
- » **International networking** (under the theme Smart and Skilful)
- » **Climate-smart South Ostrobothnia** (under the theme Flexible and Sustainable)
- » **Sustainable food ecosystem and new bioeconomy solutions** (under the theme Flexible and Sustainable)

- » **Smart technologies** (under the theme Flexible and Sustainable)
- » **Wellbeing and experience economy** (under the theme Flexible and Sustainable)

Smart specialisation in South Ostrobothnia does not merely mean naming certain top focus areas. It aims also to seek new ways of doing things, making changes to the working culture and discovering new capabilities. That is why South Ostrobothnia's Smart Specialisation Strategy also includes practices that promote business and innovation:

- » **Start up and Grow!** (Practices for start-ups and growing enterprises)
- » **Circulate and Digitalise!** (Practices for the circular economy and digitalisation)
- » **Innovate and Renew!** (Practices for innovation and business renewal)
- » **Go Global!** (Practices to promote internationalisation)

2.1 The Operating Environment in South Ostrobothnia

Entrepreneurship defines the entire economic life of South Ostrobothnia. The region has the highest number of individual businesses per capita and the highest proportion of entrepreneurs among the employed in Finland. The SME-dominated economy is resilient to change and has helped to maintain a high level of employment in the region. However, the challenges include low value added and low productivity, a limited industrial structure and low level of dynamism and renewal in the business sector.

Industry is extremely important for South Ostrobothnia. South Ostrobothnia has the second highest share of manufacturing enterprises within its stock of companies (7.68%, 2019), compared to other regions in Finland, and the highest number of manufacturing establishments per capita (7.1 per 1,000 inhabitants, 2019). South Ostrobothnia is a food region. The food sector accounts for the highest share of value added in the region. There are significant clusters of specialised industry throughout the region, as well as one of the strongest food industry clusters in Finland. In addition to the food industry, the region's industrial structure is dominated by the machine and metal product, and furniture industries.

In South Ostrobothnia, industrial turnover and exports have grown in recent years and employment trends between 2008 and 2017 were clearly better than the national average. However, when compared to other regions, productivity is low due to the

low level of direct exports, the small number of large international firms and the lack of knowledge-intensive companies.

The **employment rate** in South Ostrobothnia was the highest in Mainland Finland (76.0%, 2020), while the unemployment rate was the second lowest (5.6%, 2020). Companies' recruitment problems and labour shortages were a growing challenge in South Ostrobothnia even before the pandemic and the situation has continued to deteriorate. According to data for 2021, labour shortages are still widespread, employment has remained high and the unemployment rate is at an all-time low. The availability of skilled labour will continue to present a major problem for the region's trade and industry and is becoming a barrier to growth for the region's economy.

The matching of jobs and jobseekers has deteriorated: the number of occupations facing labour shortages has increased significantly, while the number of job vacancies is high relative to the number of unemployed people, and the average duration that a vacancy is open has increased. In the past, the region's labour market was dynamic with the shortest periods of unemployment in the country and low levels of long-term and structural unemployment. Today, the situation is characterised by longer periods of unemployment and a longer duration of vacancies being open, as well as rising youth and long-term unemployment.

Education, training and RDI. The level of education in South Ostrobothnia has risen in recent decades, but the region ranks among the lowest in an inter-regional comparison in Finland. Share of graduates of tertiary education among the region's population aged 15 and over is the fourth lowest (26.2% in 2020). On the positive side, however, the proportion of people in the region with a qualification achieved after basic education has increased and the situation for people with such qualifications is much better when examining the working-age population.

When it comes to young adults (aged 25–34), the share of tertiary graduates in South Ostrobothnia is the highest among regions without a university. The trend in educational attainment among young adults was surprisingly strong in the early years of the 2000s. Worryingly, this age group's level of education took a sharp downward turn already in the early 2010s, making the erosion of the skills base a serious concern. This is due to factors such as migration and cuts in higher education. A structural challenge is that South Ostrobothnia has by far the lowest number of starting places in tertiary education in relation to the 15–24 age group.

In South Ostrobothnia, the amount of RDI resources has increased considerably during the 2000s. This means that the gap with other regions has narrowed but, overall, the amount of RDI resources per capita has been among the lowest of the regions. In particular, the amount of public RDI resources is low compared to other

regions. The business sector contributes about 70–80% of total investment in the region. As a significant part of the local University Consortium's RDI effort is allocated according to universities' main campuses, the actual amount is difficult to calculate accurately.

Population. At the end of 2020, there were 192,150 people living in South Ostrobothnia. The annual number of children born has fallen by about a quarter in the 2010s. However, the birth rate is the fourth highest among the regions (1.55, 2020). The region has had four years of positive total net migration in the 2000s, the most recent of which was in 2012. Migration is dominated by 15–29-year-olds moving out of the region. At the turn of the 2010s, the region was still experiencing significant migration gains in the over-thirty age group, which also led to increased migration gains in the under-14 age group. Net immigration has been positive, but the share of people with a foreign background in the population is still the lowest among the regions (2.3%, 2019).

According to Statistics Finland's latest population projection, the region's population is estimated to be around 10,000 fewer in 2030 and to have decreased by almost 20,000 by 2040. In particular, the decline in the number of children and working-age people is expected to be significant. Polarisation between the regional centre of Seinäjoki and the rest of the region is expected to increase, and the demographic dependency ratio is expected to deteriorate in every municipality in South Ostrobothnia.

Seinäjoki has been continuously growing for longer than any other regional centre in Finland. The population in Seinäjoki has been growing continuously since the early 1950s. The positive aspects of Seinäjoki's demographic development are migration between municipalities, immigration and birth rate, the last of which has been among the highest among the country's large cities. Despite the absence of a university, Seinäjoki's population growth has been very positive throughout the 2000s (around 1% per year). The city's population growth is expected to remain higher than in many university cities, such as Kuopio, Vaasa, Jyväskylä or Joensuu.

Welfare and wellbeing. The morbidity index in South Ostrobothnia is higher than the national average (107.8). In particular, the wellbeing of single-parent families, aging and elderly people, and people living alone is considered worse than the rest of the population. Memory disorders and chronic psychological illnesses are increasing problems, and loneliness is also considered a growing problem. In South Ostrobothnia, the median income of the population is one of the lowest in the country and the at-risk-of-poverty rate is higher than the national average.

Greenhouse gases. According to statistics from the Finnish Environment Institute (SYKE), South Ostrobothnia has the highest per capita greenhouse gas emissions of all the regions. The main sources of greenhouse gas emissions in the region are agriculture, road transport and district heating. In district heat production, greenhouse gas emissions are particularly affected by the high share of peat.

Biodiversity and the status of water bodies. The trend of species becoming threatened in the region is worrying. For example, there are very few old-growth forest areas in the region – and many of them are not protected. The development of virgin mires and water bodies is also important for the natural environment. Currently, the level of mire protection is low, and the ecological status of water bodies is vulnerable to change.

Achieving an ecological transition will require major reforms in South Ostrobothnia. A key issue for the future of the region is how the ambitious climate targets will be met at the national, regional and local level.





Strengths

- Corporate culture, strong partnerships and mutual trust
- A favourable environment for business
- A major engineering and metalworking cluster and a national hub for the food industry
- Accessibility, a logistics junction and main railway line
- High employment rate and a dynamic labour market
- Regional university education: SeAMK, University Consortium, Epanet research network
- A strong foundation for vocational education and training and high-level skills



Weaknesses

- Ageing population and shrinking working age population
- Low national migration magnetism
- Low degree of internationalisation in terms of population and business
- Low level of education and small number of university study places
- Limited industrial structure, low commitment to development and low productivity
- Low number of growth companies and companies with strong R&D activities
- Shortage of skilled professionals at both the production and expert levels
- Pooling the region's resources to achieve common goals
- High carbon dioxide emissions in the region



Opportunities

- Strengthening the culture of growth, networking and taking a leap forward in internationalisation
- Increasing productivity and digitalisation, especially in the manufacturing sector
- Supporting sustainable growth in the food sector and bioeconomy
- Increasing the volume of RDI activities, and new models of cooperation
- Innovative experience production, diverse cultural offerings and cultural heritage
- Extensive digitalisation, utilising remote work and remote services
- Increasing magnetism and diversified housing opportunities



Threats

- Falling behind in internationalisation and global development trends
- Attitude, mental introversion, loss of faith in the future
- Erosion of entrepreneurship and entrepreneurial attitudes, lack of interest in growth
- Uncontrolled ecological transition
- Unpredictable impacts of climate change
- Clinging to declining industries and current practices
- Increasing centralisation of higher education

2.2 Innovation Challenges and the Bottlenecks of Innovation Diffusion

South Ostrobothnia has scarce resources for research and higher education. Per capita, RDI expenditure is the lowest among the regions (2019), and the region has the lowest number of starting places in tertiary education in relation to the 15–24 age group (2020). The gap to the last but one region is considerable.

RDI resources and young adults' level of education rose significantly in the 2000s. The gap between similar regions became narrower, but South Ostrobothnia's ranking in the inter-regional comparison remained low. There has been a startling change in the level of education. South Ostrobothnia currently has more than a 1,000 fewer young people aged 25–34 who have a tertiary level degree than in 2010, which has led to a significant drop in the level of education in this age group. This collapse in educational level has been caused by the cuts made in the 2010s and the growing attraction of large cities. The situation has been made worse by the fact that there has been little higher education available in the region in relation to the size of the younger age groups. In the regional centre of Seinäjoki, the level of education has remained higher than in the rest of the region. Graduates from Seinäjoki University of Applied Sciences (SeAMK) find employment effectively and settle reasonably well in South Ostrobothnia after their studies.

In South Ostrobothnia, cooperation between institutions of higher education has become stronger and more established. A network of higher education establishments has been created in the region, including the Seinäjoki University of Applied Sciences, the University Consortium, a network of Epanet professors and research groups, as well as partners such as municipalities, trade and industry, public funding agencies and other higher education institutions. According to the joint higher education strategy, education and research are directed at areas of focus that are in line with the Regional Strategy and Smart Specialisation Strategy. Cooperation between different sectors is a major strength of the region.

This approach has proved effective in the region, although the level of funding and resources is low and does not remain constant. State funding has not been predictable and changes have been frequent. The same challenge applies to vocational education and training. Fragmentation and constantly applying for funding from different sources is a challenge for the development of the activities. The decline in state funding has brought challenges to the effectiveness and continuity of higher education. However, as core funding for higher education institutions has declined, new sources of funding have been found, such as the export of international education and know-how and project activities. The promotion of international activities will continue to play an especially important role.

Several ecosystems focusing on different stages of development have emerged in South Ostrobothnia, with strong links to higher education actors in the region, through professorship funding and RDI activities. The theme of the ecosystem agreement between business networks and public actors in Seinäjoki is smart green growth, which aims at business growth and internationalisation in the food ecosystem and renewable industries. La Alucenter is a well-established and growing metal industry ecosystem consisting of 11 companies in the Järviseuutu area of South Ostrobothnia. In addition, there are several other well-established networks in the region that act like ecosystems and that could be developed to promote growth and regeneration.

The per capita RDI investment by companies in South Ostrobothnia is at a reasonably good level, accounting for approximately 70–80% of the region's total investment. The scarce research resources available are used extremely effectively in the region. About 10–20 patents are granted annually in South Ostrobothnia. Relative to RDI resources, the number of patents granted in South Ostrobothnia is high and, in some years, has been the highest in the country, reflecting very effective innovation activities. When considering RDI in the region as a whole, the funding gap is due in particular to the scarcity of RDI resources in the public sector and higher education.

South Ostrobothnia has performed well on many economic indicators, ranking high in favourable attitudes towards entrepreneurship, but at the same time the region finds itself at the tail end of traditional innovation capability analyses. There are few large and knowledge-intensive companies in the region. SMEs invest very little in RDI. Innovation in the region often takes a practical and applied approach, and companies do not necessarily have a research unit to develop new products or processes. Practical innovation among SMEs may not necessarily be evident in innovation statistics, but it has an economic impact and an impact on employment. The patents granted in the region are often practical and concrete in nature.

In efforts to strengthen innovation in South Ostrobothnia, particular attention should be paid to increasing productivity, which is low in the region. In particular, the focus needs to be on raising the level of skills and education, strengthening RDI, developing high value-added products and diversifying and renewing our company base.

South Ostrobothnia has the highest number of enterprises per capita and considerable potential for renewal among the existing business sectors.

In South Ostrobothnia, the largest number of new businesses are created in low productivity sectors and there is a particularly strong need for new entrepreneurship in knowledge-intensive sectors. By strengthening higher education, it would be possible to promote entrepreneurship among tertiary graduates and address the shortage of knowledge-intensive companies.



Innovation bottlenecks

- Low productivity
- Limited industrial structure and small number of companies that drive growth
- Lack of knowledge-intensive entrepreneurship
- Low proportion of direct exports and companies' low level of internationalisation
- Collapse of high-level education in the age group of 25-34-year-olds
- Low number of study places in proportion to young age groups
- Low quantity of RDI resources and the fragmented nature of funding
- Companies' lack of commitment to growth
- Shortage of skilled professionals at both the production and expert levels

2.3 Strategy Development Process

The Smart Specialisation Strategy has been prepared in a joint process with the Regional Programme and the long-term Regional Development Plan for South Ostrobothnia. They have been combined into a single entity, which is called South Ostrobothnia of Tomorrow – Regional Strategy for South Ostrobothnia. The preparation process was organised in such a way that it encouraged citizens' participation.

Preliminary work to prepare the strategy process and provide background for it

During the first half of 2020, scenarios up to 2050 were prepared for South Ostrobothnia. They also form the basis for smart specialisation and influence the policies that are put in place.

Stages and progress of the strategy process

The process was launched by the decision of the Regional Board on 24 August 2020. The strategy process has been steered by the regional Future Group. It includes a broad representation of the development bodies in the region (higher education, vocational education, municipalities and their departments of economic development, the hospital district, representatives of business and industry, and the local Centre for Economic Development, Transport and the Environment). The Group has met seven times at different stages of the process, first to discuss the initial strategic objectives and actions and then, at the end of the process, the draft strategy.

The content of the strategy has been produced and developed in four large and inclusive working groups. Each group loosely focused on its own theme, which were business and RDI, culture and wellbeing, climate change and biodiversity, and community development and connections. The working groups were composed of representatives from trade and industry; research and educational organisations; municipalities and regional development companies; the Centre for Economic Development, Transport and the Environment, and sectoral organisations.

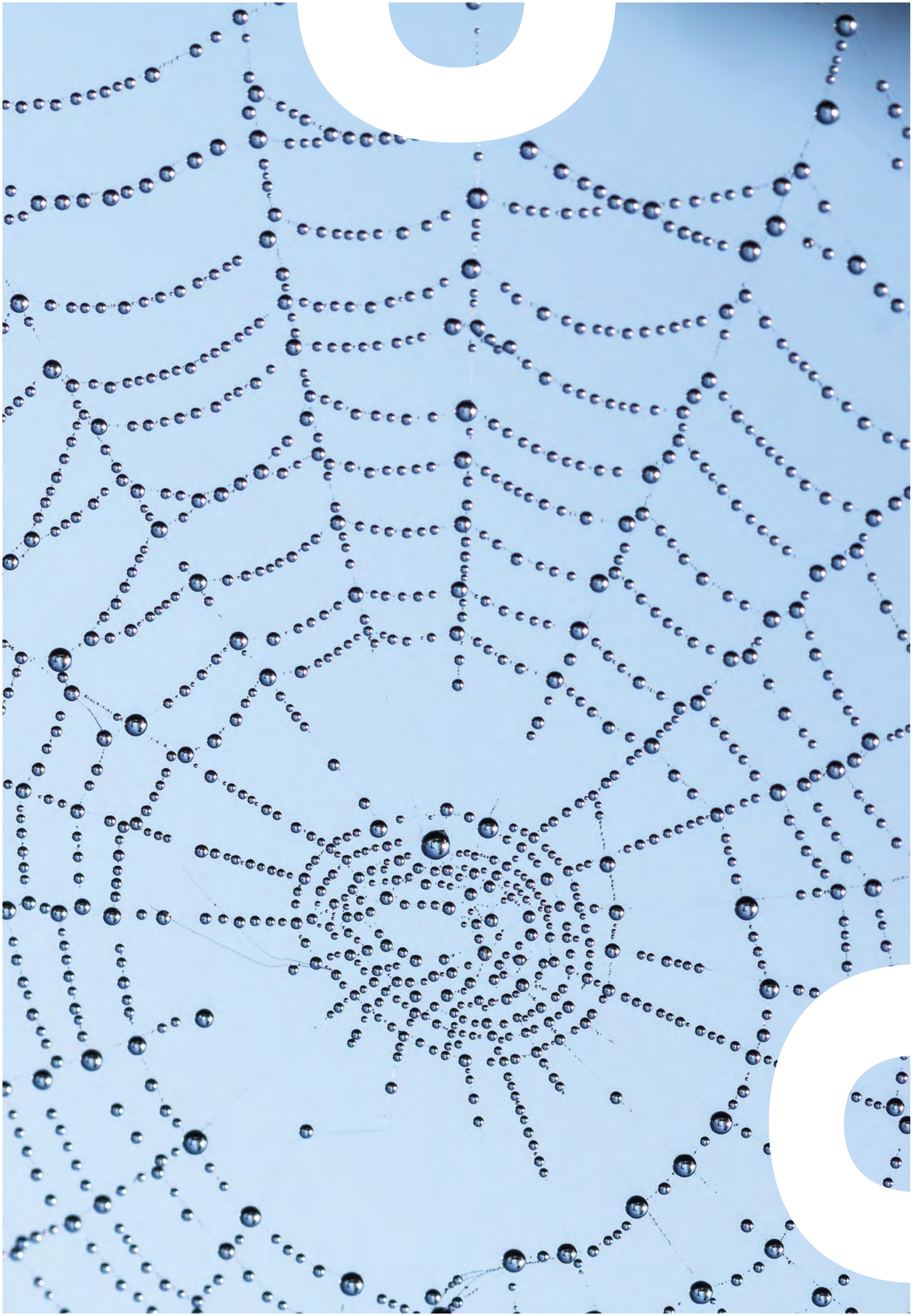
The content and policies were discussed with representatives of the business community (including the Chamber of Commerce's committees). The key contributors to this work were those involved in business development work and those with a broad understanding of the state of business and entrepreneurial activities in the region.

Two open webinars were organised during the preparation process; the first at the start of the process and the second after the draft strategy had been completed.

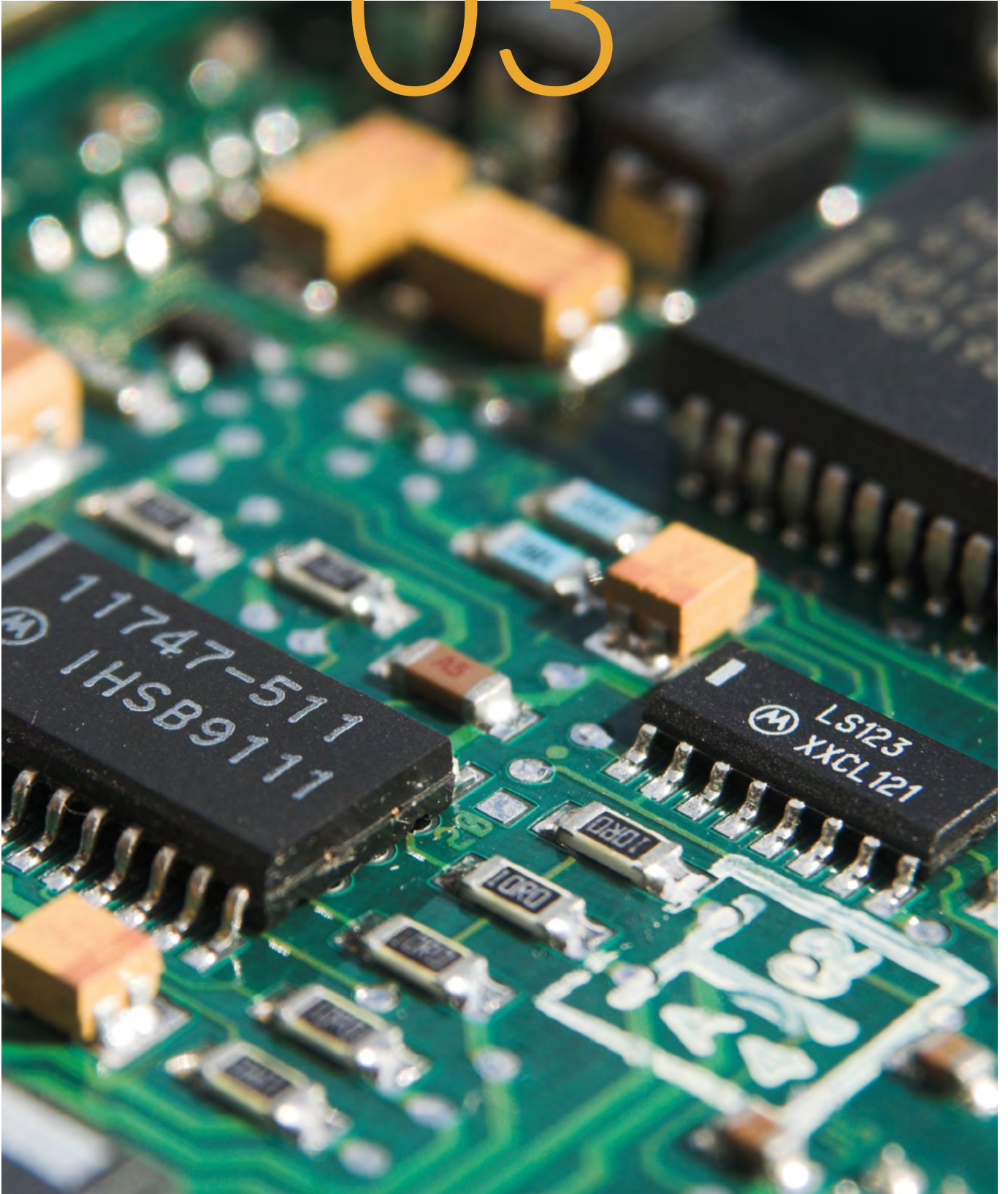
The participatory process was strengthened by organising seven regional development meetings with remote access in different parts of the region. These events also provided local input from business representatives.

The regional cooperation group, Regional Board, Regional Assembly and municipal managers have provided advice and regularly discussed the strategic policies and preliminary contents during the process. As the Regional Assembly approving the strategy was newly constituted, the members of the Assembly were given an introduction and an opportunity to comment on the contents of the strategy before its approval.

As part of the Regional Strategy, the Smart Specialisation Strategy was open for comments and proposals for changes during the public consultation period from 29 September to 31 October 2021.



03



Choices for
Smart Specialisation

3.1 Innovation Ecosystems That Become Stronger

The University Consortium and Epanet professorships, together with Seinäjoki University of Applied Sciences, form the heart of publicly funded research, development and innovation in the region. Other key players include upper secondary vocational institutions, research institutes, companies and the hospital district.

The readiness and capacity of companies to invest in change are essential for renewal, as are the services and networks that support change. It would be important to create structures and networks for consortia of regional actors, so that these consortia could create better conditions for renewal, innovation, application and business growth.

It is also important to identify existing business clusters in the region, both nascent and established ecosystems. The public sector can provide multifaceted support to business and enterprise ecosystems at different stages of development and increase interaction between different actors, for example by creating platforms for collaboration, innovation or experimentation.

Actions

Implementing an increase in the level of innovation in South Ostrobothnia

- » Developing the next phase of Epanet. Strengthening the research groups in the region and their quality research in collaboration with the main campuses. Seeking research funding and membership in international cooperation networks more and more actively
- » Identifying ecosystems at different stages of development, supporting their development and growth
- » Having a strong focus on international cooperation in research, education and in addressing the shortage of experts
- » Improving conditions for the growth of research, development and innovation, strengthening the research community and developing open research environments

- » Capitalising on the potential for the commercialisation of RDI activities
- » Increasing the number of organisations involved in RDI cooperation and supporting companies in organising their development work and in improving their marketing, sales, logistics and production
- » Creating new and strengthening existing partnerships between sectors and areas
- » Investing in forecasting, knowledge production and knowledge management

Developing high-quality RDI and learning environments

- » Building and further developing research, simulation and learning environments for RDI activities in higher education and vocational education and training, as well as demonstration and pilot environments that link the RDI activities of educational institutions and enterprises. Promoting their widespread and open use
- » Investing in laboratories for mechanical and production engineering, the food sector, industrial internet and robotics, and the social and health care sector to strengthen RDI activities
- » Investing in building demonstration and pilot environments, in particular to support the European Digital Innovation Hubs (EDIH) under preparation
- » Strengthening the business-driven approach to RDI

Building a national Competence Centre for the digital technologies of the food sector

- » Developing food education, research, development and innovation into an innovation ecosystem at a high international level
- » Bringing smart technologies to farms and SMEs operating in the food supply chain
- » Identifying and capitalising on the growth potential of the food sector in business development
- » Increasing open-minded cooperation in the food sector and seeking to boost the food chain's value added and to increase turnover from technology exports

Promoting the content and role of the Seinäjoki ecosystem agreement as part of national growth centres

- » Strengthening and diversifying the food innovation ecosystem, at the same time invigorating its sphere of operators and interrelations within a regional, national and international context
- » Promoting enterprises' ability to identify new business opportunities, develop their know-how and play an active role in the food ecosystem and its sustainability transformation
- » Strengthening the link between private and public investments in the future and enterprises as a platform for business growth and renewal
- » Promoting the emergence of a multisectoral business and innovation ecosystem that supports the competitiveness, digitalisation and production efficiency of manufacturing companies
- » Promoting green logistics solutions that support sustainable business growth for companies
- » Increasing a dynamic and regenerative business/entrepreneurial culture, the emergence of new business activities and business models, and the ability of enterprises to anticipate change

3.2 International Networking

In recent years, South Ostrobothnia has strengthened its links with international partners and networks, but so far cooperation has been the responsibility of a limited number of actors. International networking requires large-scale support, activating and motivating new actors, regional cooperation and strengthening commitment. It is important to involve not only trade and industry operators, but also organisations and associations in promoting internationalisation. Communicating the results, benefits and added value of international networking is essential.

Steps

Strengthening the role of South Ostrobothnian operators in existing international networks

- » Creating new partnerships, particularly in the focus areas of business and smart specialisation
- » Strengthening our role in networks related to research, innovation, education, training and key branches of industry, such as:
 - » food industry networks (thematic Smart Specialisation networks, ERIAFF (The European Region for Innovation in Agriculture, Food and Forestry))
 - » health technology networks (ECHAlliance (The European Connected Health Alliance) ecosystem network, eHealth for Regions)
 - » networks for the promotion of digitalisation (ERNACT (European Regions Network for the Application of Communications Technology), EDIH (European Digital Innovation Hubs) cooperation)
 - » business internationalisation and export networks (EEN (Enterprise Europe Network); ICC International Chamber of Commerce; bilateral chambers of commerce – particularly Finland–Sweden, Finland–Russia and Finland–Germany; Viexpo; Snow Panda Education and Research Consortium SERC)
 - » networks for education and training development and the export of know-how (European Universities Initiative, EfVET (European Forum of Technical and Vocational Education and Training), FLEN (Food Learning Export Network), Education Finland)
 - » innovation networks in different sectors (EIT Food, EIT Digital, EIT Manufacturing (European Institute of Innovation & Technology))
 - » the Team Finland network (Business Finland, Business Finland Global Network, the Ministry for Foreign Affairs of Finland)
- » Joining forces with and between regional operators to broaden the operator base and increase their weight in the international scene
- » Reviving activity in international networks after the COVID-19 pandemic

Seeking out and joining new networks

- » Creating new partnerships, particularly in the focus areas of business and smart specialisation
- » Encouraging new developers in particular to take the initiative in making use of European funding programmes and to network within the framework of cooperation supported by them
- » Encouraging experienced operators in the region to share and utilise their existing networks and help create new networks through synergy gains
- » Supporting experienced operators to take a pioneering role in creating and joining new networks

3.3 Climate-smart South Ostrobothnia

Achieving the Climate Neutral Finland 2035 target requires significant and rapid actions to reduce emissions in the energy sector and traffic, but also to reduce emissions in the land-use sector and to strengthen carbon sinks and carbon storage.

Finland's national strategic programme to promote a circular economy sets targets reaching up to 2035 for reducing the consumption of primary raw materials and other materials and increasing the productivity of resources and the circular material use rate.

These targets also apply to South Ostrobothnia, where per capita greenhouse gas emissions are currently the highest among Finland's regions and the circular material use rate is still low. The energy production system in South Ostrobothnia will change in the coming years due, among other things, to the decrease in the use of peat and the fact that society will become more electrified.

Steps

Taking action to mitigate climate change and adapt to its effects

- » Strengthening the region's climate expertise and maintaining an up-to-date picture of the situation and information on climate measures suitable for South Ostrobothnia

- » Increasing understanding and knowledge of the benefits and opportunities of the circular economy and supporting the transition to a circular economy across sectors
- » Encouraging public sector entities and business sectors to commit on a large scale to the implementation of a shared road map for climate action and the circular economy and supporting their climate solutions and public procurements as a driver for the green transition
- » Continuing to put climate actions and circular economy thinking into practice in all sectors of society
- » Anticipating, preparing for and adapting our actions to the impacts of climate change (storm devastation, floods, droughts, nutrient washouts, crop damage, insect damage)
- » Promoting the use of locally produced food and services and taking this into account in decision-making
- » Promoting timber construction so that South Ostrobothnia achieves the public wood building targets set by the Ministry of the Environment
- » Supporting the implementation of green transition projects through land-use planning and zoning, taking into account their various impacts

Promoting a controlled transition to sustainable energy production

- » Boosting the uptake of renewable and emission-free energy production methods. Capitalising on new technological solutions and innovations
- » Supporting the transition to a zero-emission energy system by increasing the production of sustainable bioenergy, introducing non-combustion-based forms of energy production and recycling energy, for example by making use of waste heat
- » Promoting carbon-neutral production of district heating and building-specific energy solutions that save power and use zero-emission energy
- » Developing the necessary new energy infrastructure, such as charging points, biogas distribution stations, energy transmission networks and energy storage facilities, and preparing for the development of a hydrogen economy
- » Creating the conditions for increased biogas production also in decentralised, smaller-scale plants located, for example, close to farms. Promoting the use of biogas for transport

- » Developing smart and low-carbon innovations and digitalisation for transport and movement
- » Promoting energy sector integration and smart energy systems, particularly in agriculture and the food industry, so that fluctuations in renewable energy production and consumption can be balanced

Promoting climate-smart actions in the land-use sector

- » Promoting investigation and research on carbon dioxide emissions and carbon sequestration in the land-use sector
- » Promoting climate-smart forms of after-use that support biodiversity for areas released from peat production, and developing more environmentally friendly peat production methods
- » Raising awareness of the climate impact of peat fields and promoting the implementation of measures to reduce climate emissions from peat fields (such as raising groundwater levels, increasing vegetation cover, reducing tillage)
- » Strengthening forest carbon sequestration by increasing the level of forest management in the area
- » Promoting the adoption of peatland management practices and approaches that support the reduction of peatlands' climate impacts and impacts on the water system



04



— Business Focus Areas —
for Smart Specialisation

4.1 Sustainable Food Ecosystem and New Bioeconomy Solutions

South Ostrobothnia plays a key role in maintaining Finland's food knowledge and food security. The region is home to a nationally significant concentration of the food sector and food industry. It encompasses all the stages of the chain and the parties involved in it, from primary production, processing industry and technological solutions to consumer behaviour. The strengths of the food sector in South Ostrobothnia are production quality management, traceability, safety, cleanliness and service solutions.

South Ostrobothnia has the potential and raw materials to strengthen the bioeconomy and produce bioenergy. The region is characterised by extensive use of forest energy on farms and a large number of heat entrepreneurship sites. Wood fuel is also used by larger plants, and the raw material is transported outside the region too. In the future, the use of raw wood material will be more sustainable, and there is potential and already some entrepreneurial activity in areas such as the promotion of wood construction.

Steps

- » Strengthening cooperation and the exchange of information within the food chain
- » Promoting sustainable investments related to the green transition
- » Harnessing the innovation potential of the ecological transition (low carbon, biodiversity) in the food sector and bioeconomy
- » Developing and capitalising on new technologies and digital systems and solutions. Taking into account the innovation potential of sectors' interfaces
- » Developing new bioeconomy solutions and high added value products
- » Improving consumer knowledge and increasing consumer orientation in the product development of the food sector. Developing and exploiting the Food Province brand and awareness of it
- » Strengthening expert services for food systems
- » Strengthening the top know-how of South Ostrobothnian food experts in food safety and the traceability of the food chain
- » Developing high-quality solutions to meet the global challenges of the bioeconomy and providing solutions to climate and environmental issues. Taking sustainability and security of supply considerations into account

- » Implementing measures in line with the Regional Forest Programme (overall sustainable forest management, research and evidence-based forestry, overall sustainable use of peatland forests, replacement of fossil raw materials with wood-based materials in products and fuels)

4.2 Smart Technologies

Along with the food industry, the manufacture of machinery, equipment and metal products and the wood product industry are the strongest industrial sectors in the region. The region has strong competence centres and specialised industrial clusters in sectors such as agricultural technology, metal construction, metal-machining tools and hoisting and handling apparatuses. The region also has considerable expertise in health and wellbeing technologies. Smartness and data volumes are increasing in all systems. Modernisation requires increasing knowledge-intensity, digitalisation and service production in matters concerning energy efficiency, automation, artificial intelligence, computer vision and software engineering.

Smart technologies permeate the business sectors of South Ostrobothnia. Smart solutions and harnessing the latest technologies are key to productivity growth, whether in construction, the machine and metal industries, the health and wellbeing sector or the food sector. In South Ostrobothnia, productivity is low, but the region has considerable potential for change through the restructuring of the industrial structure.

Steps

- » Promoting the renewal of the manufacturing industry
 - » Promoting major sustainability investments in industrial modernisation in relation to the machine and metal industries, the food industry, the wood product industry and the construction industry
 - » Supporting the development of enterprises' business processes and actions that can kick-start the adoption of new technologies in companies and strengthen digitalisation, automation, energy efficiency and the application of artificial intelligence and blockchain technology
 - » Developing and implementing Sustainable Industry X (SIX), a large-scale manufacturing renewal agenda for Western Finland, and the related European Digital Agenda. Creating service pathways for businesses in the region, from low-threshold development work to more sophisticated and fee-based development services
- » Developing smart and efficient logistics systems (such as electric aircraft, drone logistics) and transport services

- » Promoting smart customer service and logistics systems
- » Strengthening digitalisation and creating new models for the production of services

4.3 The Wellbeing and Experience Economy

South Ostrobothnia has strong expertise in the health and wellbeing sector, for example in the application of technology.

The tourism sector has grown in importance, and the region has several attractive tourist destinations and original experiences to offer. Yet, tourists from other countries especially are still not very familiar with South Ostrobothnia as a tourist destination. During the pandemic, domestic tourism has become increasingly important. Once the restrictions are lifted, it will be important to continue to offer attractive destinations for both domestic and foreign tourists.

The event sector has been the flagship of the region and, as a result of years of work, it has well-functioning infrastructures and production methods in place. However, the sector is struggling due to the pandemic and needs special measures to survive.

Steps

- » Developing and capitalising on new technological health and wellbeing products, innovations and applications
- » Developing new services that promote health and wellbeing
- » Developing operating environments and entrepreneurship for the creative industry
- » Strengthening the region's status as a hub for the event industry and ensuring that the skills needed in the event industry are maintained and that the sector recovers from the effects of the pandemic
- » Increasing the visibility of tourism destinations in South Ostrobothnia, strengthening the operating environment of the tourism sector and investing in the internationalisation, sustainability and responsibility of the region's tourism and in the digitalisation of the customer journey
- » Supporting cultural innovations and promoting digitalisation in cultural production
- » Strengthening innovation networks in the creative industry and creating tools to develop them and monitor their development

05



The Practices of Smart Specialisation

South Ostrobothnia's Smart Specialisation Strategy applies broadly to all economic activity in the region. The purpose of the Strategy's practices is to modernise, strengthen and diversify the region's business sector. Solutions are particularly needed to boost productivity and stimulate the appetite for growth.

5.1 Start up and Grow! (Practices for start-ups and growing enterprises)

- » Supporting new business activities and strengthening the services of start-ups
- » Encouraging business growth, knowledge-intensive entrepreneurship, modernisation and internationalisation. Compiling a list of services offered by growth companies and providing training to support growth, renewal and internationalisation
- » Promoting high-quality change of ownership services, merger and acquisition transaction services and business models as a source of renewal and growth
- » Strengthening business skills and the research involved at different stages of entrepreneurship
- » Improving the conditions for new forms of entrepreneurship (such as part-time and light entrepreneurship)
- » Improving access to risk financing in South Ostrobothnia
- » Strengthening cooperation between companies of different sizes and from different sectors

5.2 Circulate and Digitalise! (Practices for the circular economy and digitalisation)

- » Supporting business modernisation and skills development in the transition to a carbon-neutral economy
- » Developing carbon-neutral solutions that promote the green transition, such as products, materials, services and production methods
- » Lowering barriers to the adoption of environmentally friendly practices
- » Improving the energy efficiency of enterprises, for example by

developing energy-efficient, environmentally friendly products, services and production methods with higher value added

- » Utilising production side streams in different industries and improving energy and material efficiency
- » Developing a culture of corporate responsibility and capitalising on the opportunities created by sustainable development and climate mitigation measures
- » Identifying the climate impacts of business operations, the range of mitigation options and how to implement them appropriately
- » Developing smart solutions and low-emission innovations
- » Promoting the use and commercial exploitation of new technologies
- » Improving the digitalisation readiness of enterprises, taking different starting levels into account

5.3 Innovate and Renew! (Practices for innovations and business modernisation)

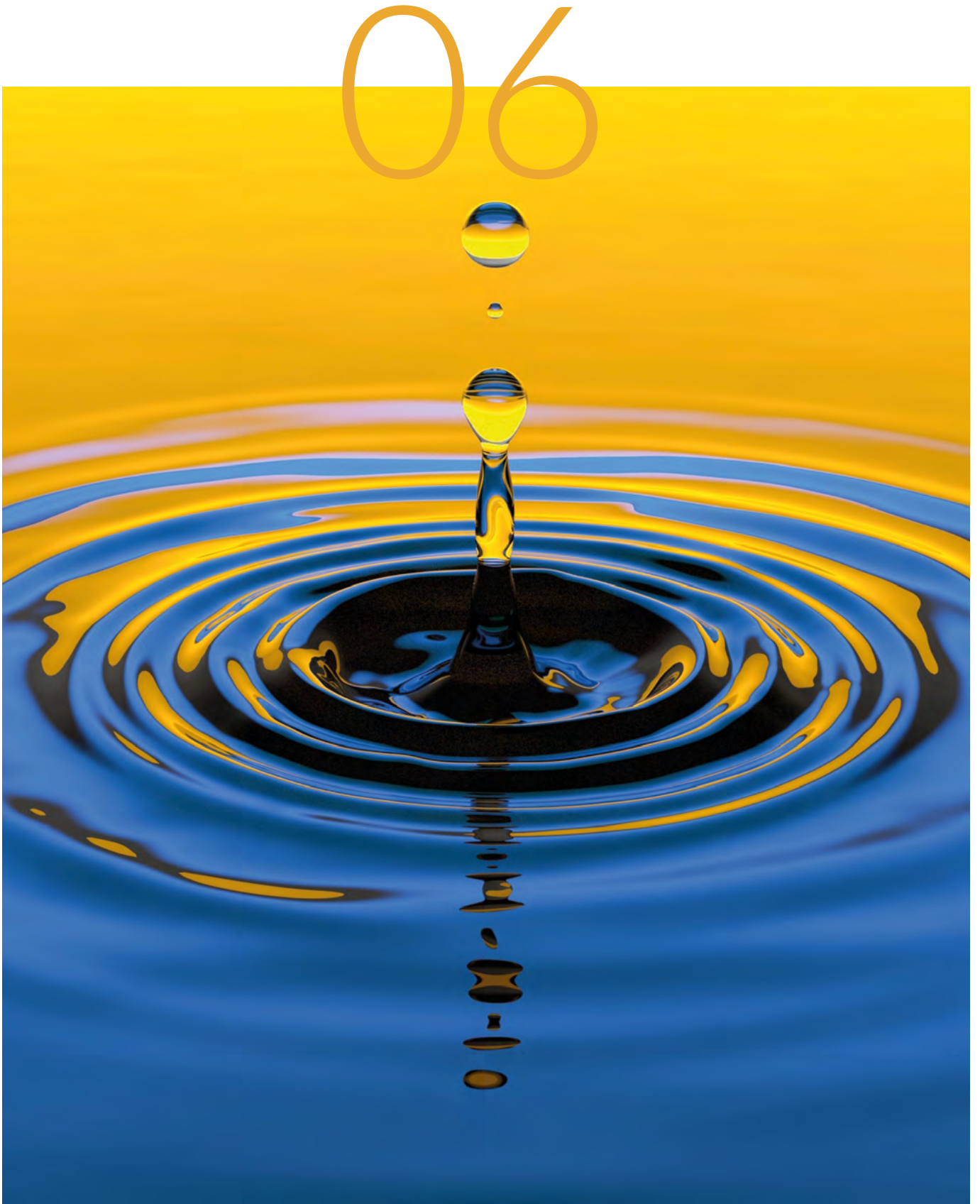
- » Developing business-driven innovation services
- » Diversifying commercial and industrial life and strengthening the region's resilience
- » Developing business activities across industry boundaries, enabling new types of digital services and business models, among other things
- » Encouraging and supporting SMEs in product development and in adopting new production methods and technologies
- » Reforming business activities and other production of services through service design
- » Investing in research, development and innovation to boost productivity, profitability and resilience
- » Developing new products and services and seeking new markets, taking into account, for example, the results of RDI activities
- » Connecting to new, growing business clusters and networks (such as the Vaasa battery cluster)

- » Reforming the public procurement model to promote innovation
- » Promoting the data economy and harnessing the use of data in business and product development

5.4 Go Global! (Practices to promote internationalisation)

- » Making use of international networks for the internationalisation of enterprises and RDI operators
- » Promoting consortia aiming at internationalisation and developing new approaches to achieve internationalisation. Making use of international funding
- » Strengthening and supporting the internationalisation know-how of enterprises
- » Developing internationalisation services for enterprises
- » Promoting the direct export activities of the region's companies
- » Strengthening Invest in activities





— The Smart Specialisation Strategy's Effectiveness Targets and Indicators —

The overall effectiveness of the Regional Programme and, in the same context, of the Smart Specialisation Strategy will be monitored using the main indicators in the table below. They will provide an overview of the situation of the themes to be developed during and at the end of the programming period.

Main indicators		
Indicator	Most recent data	Target 2025
Population	192 150	192 150
Employment rate	76,0	77 %
RDI per capita	217 €	265 €
GDP per capita	32 977 €	37 000 €
Morbidity index	107,8	100,0
Greenhouse gas emissions	12,1 tCO ₂ e per capita	7,5 tCO ₂ e per capita
Level of education, age 25–34 (all educational levels)	89,2 %	90 %
Commitment to Development Index (CDI)	0,11	0,12

(Sources: Statistics Finland, Finnish Institute for Health and Welfare, Finnish Environment Institute SYKE)

In addition to the main indicators, the monitoring of the effectiveness of smart specialisation in particular will take place in the context of the situational picture of innovation activities. The situational picture includes indicators on business operations, employment and the economy, higher education and RDI, as well as green growth. The key point of the situational picture is to analyse the numerical data from the indicators in order to draw conclusions about the direction of development and the impact of social phenomena on regional development.

The monitoring review will be based on extensive statistics, which will be updated on the website www.epliiitto.fi/tilastot maintained by the Regional Council of South Ostrobothnia. (Only in Finnish)

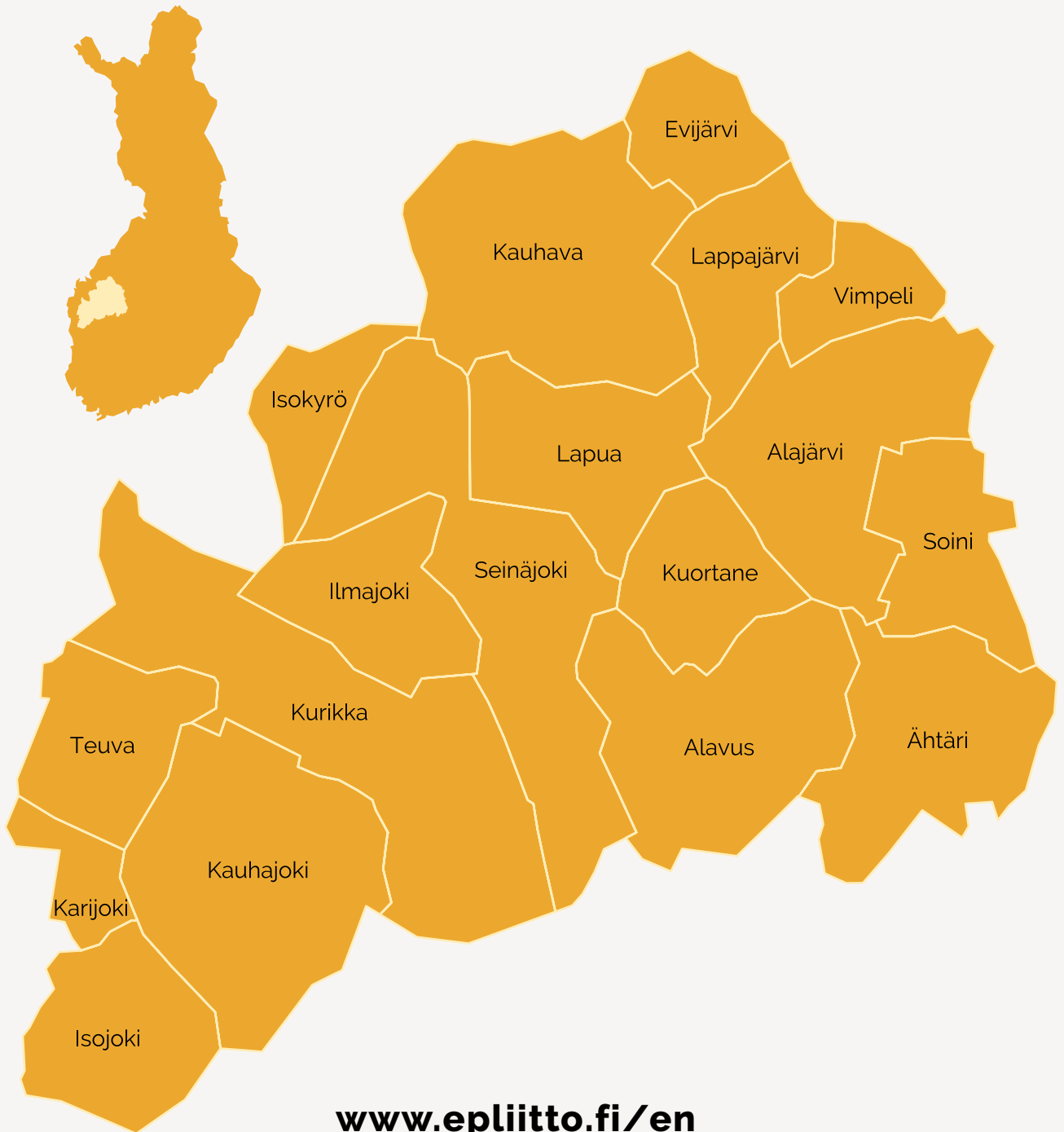
This monitoring is complemented by project monitoring performed on a fund-by-fund basis. The funds monitored are the ERDF, ESF, JTF and EAFRD. Monitoring is carried out by targeting the projects financed in the region under the objectives of the Regional Programme and the Smart Specialisation Strategy.

When monitoring the Regional Programme and the Smart Specialisation Strategy, the partnership principle will be implemented, for example, through a barometer survey targeted at stakeholders. The barometer questions are used to gauge the views of the region's key development actors on the achievement of the programme's objectives, the measures taken and the need for changes to the programme. The survey will be carried out annually with the same content, so as to obtain results that lend themselves to comparison and to see the direction of the development in the long term.

SMART SPECIALISATION STRATEGY

SOUTH OSTROBOTHNIA OF TOMORROW





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ETELÄ-POHJANMAAN LIITTO
Regional Council of South Ostrobothnia

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OF TOMORROW**