

Smart Specialisation Strategy in Päijät-Häme Region

SUSTAINABILITY



SPORT



FOOD AND BEVERAGE



MANUFACTURING

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SMART SPECIALISATION STRATEGY
IN PÄIJÄT-HÄME REGION
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Foreword

Smart specialisation is the European Union's innovation policy solution for regions exposed to international competition. It is based on the idea that each region has its own **economic strengths**, which can be used to increase the region's competitiveness through cooperation between actors. The spearheads for smart specialisation in Päijät-Häme Region are defined in the regional strategy, and this appendix on smart specialisation further elaborates the spearheads presented in the strategy. Later in this document, smart specialisation strategy will be referred to as S3.

In addition to these spearheads being real strengths of the region, they also meet other requirements for S3 spearheads set by the Commission. In Päijät-Häme Region, there are **enough companies, education, RDI activities and potential for internationalisation** within the spearhead industries. **Therefore, these industries have the potential to rise to the next level and respond to the disruption caused by low carbon economy and digitalisation.** One of the requirements is local collaboration – something that has also been implemented: the spearheads have been redefined together with key stakeholders in the region, and roadmaps that have been drawn up earlier through participative process are well coordinated with these new spearheads.

The renewed spearheads for smart specialisation in Päijät-Häme Region are:

1. Sport
2. Food and beverage
3. Manufacturing
- + Sustainability

When defining the spearheads, translation into English was also something that was considered necessary as S3 is used in the application process for international projects and in international cooperation. The spearheads contribute to branding the region so they need to be easy to remember, distinctive and interesting.

The region is one of the leading organisers of international sporting events and experiences in Finland. The region also boasts an active Grain Cluster, one of the largest beverage factories in Finland, a large-volume oat processor and an interesting cluster of small businesses. One of the cornerstones of the region's economic structure is a diversified industry that has started to innovate and renew itself. These three spearheads have sustainability as a cross-cutting principle, which combines the region's traditional areas of expertise with environmental technology as well as energy and resource issues including circular economy, and design.

New opportunities for the region can be found at the intersections of the spearheads and sustainability. The idea is therefore to focus regional and structural policy funding on these combinations, where sustainability brings more value and opportunities for the three spearheads. A well-designed, sustainable sporting event or a sustainably produced food experience are excellent examples of specialisation. Correspondingly, industrial production is being designed to fit the framework of sustainable development, which leads to the green transition of the plastic, wood and metal industries in the region.

Spearheads are defined by their leading idea, and it is not possible to set absolute boundaries for them. Of course, only key industries and their jobs are included when measuring the progress of the spearheads. However, it is possible that in regional development and in the industry's own innovations some things will happen over time that will change these parameters. A steering document should therefore not restrict the development of these key industries in the wrong way.

Spearheads can also easily overlap, which further strengthens their development. Sport may be associated with food and beverage, for example at major sporting events. Low-carbon, energy-efficient and resource-wise technologies and operating models can be easily integrated into the food industry and tourism, which often is about offering eating and drinking experiences. Combining these offers great opportunities for new projects.

Background analysis

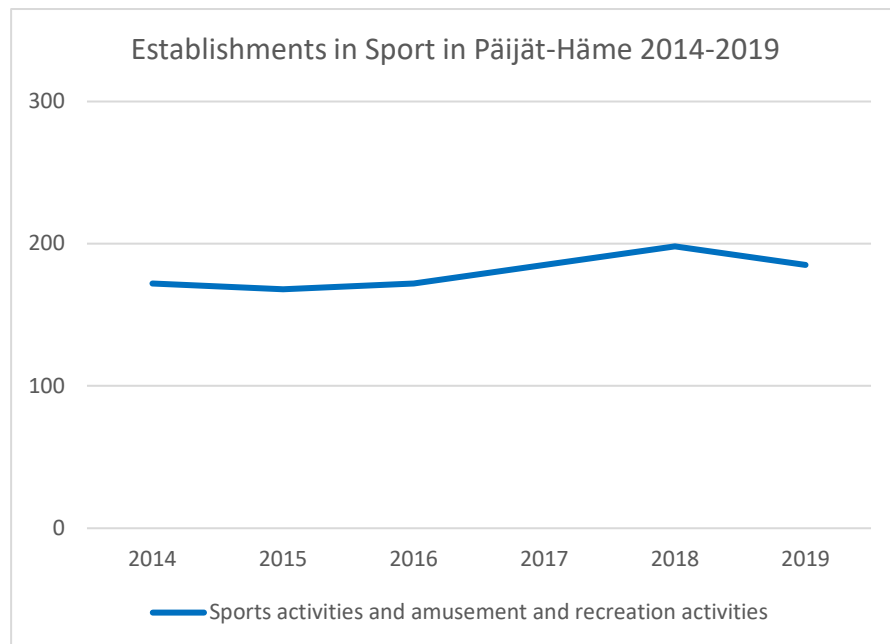
Regional actors redesigned the S3 during 2021. This update is based on both statistical information on various industries and the actors' practical experience of the region's economic structure and future prospects in various industries. This brought together a vision of the strengths with the potential for innovation, growth and internationalisation.

In the update work, statistics on industries in the region were analysed. The statistical analysis was mainly carried out at the second highest level of the industry classification. At this level, it is possible to compare different industries. This provides sufficiently detailed information, although it is not possible to drill down into the most accurate information on various industries. The statistical analysis looked at, among other things, the location quotient of industries, the number of establishments and personnel, turnover, value added and company formation. The review was limited by incomplete statistics on the region and industries at the second highest classification

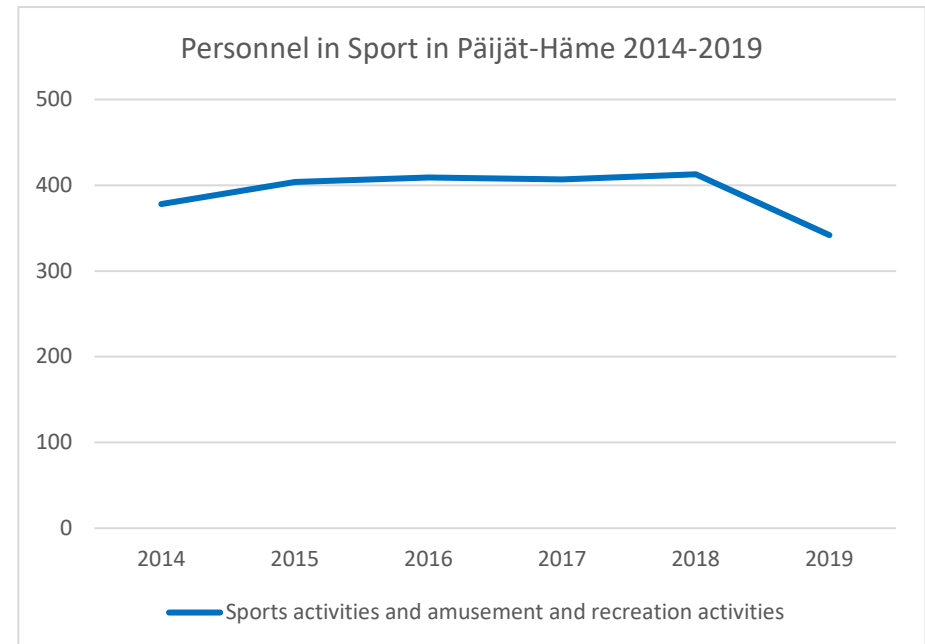
level. For example, statistics on RDI investments by region and industry is not available.

The strength of Päijät-Häme Region is its diversified economic structure. Industry has been the basis of the economic structure, and the industry structure is still one of the most comprehensive in Finland. The region is built on the growth of family businesses, which continue to employ and create new industrial jobs and export earnings. However, the share of other industries has grown in the 2010s, and the role of service industry continues to grow. In addition to industry, the number of establishments and personnel has decreased in the 2010s in wholesale and retail trade, transportation and storage, administrative and support services, and agriculture. There are more establishments and personnel now in health and social services, accommodation and food services, information and communication as well as in real estate.

Sport is a spearhead that is statistically most difficult to define. It is best described by the field of sports activities and amusement and recreation activities, but in reality it extends much wider, including services like accommodation. The development of establishments and personnel in sports activities and amusement and recreation activities has been fairly steady in the region. The number of establishments indicates the number of companies and the number of personnel indicates the number of jobs in the sector. The industry ranks in the top quarter by number of establishments, and in the middle by number of personnel when compared to the economic structure of the region.

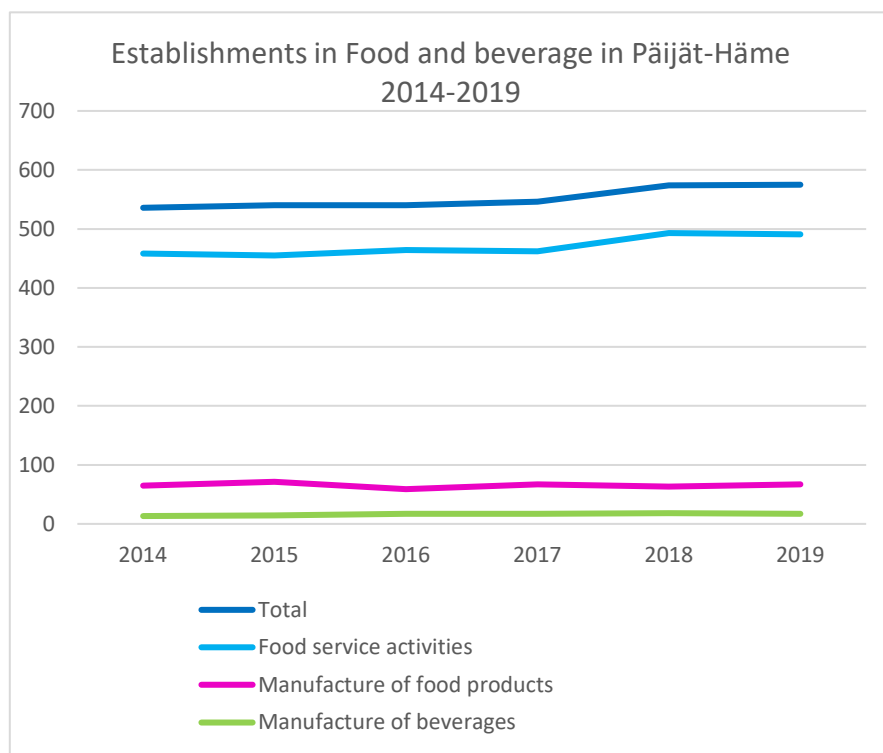


Source: Statistics Finland

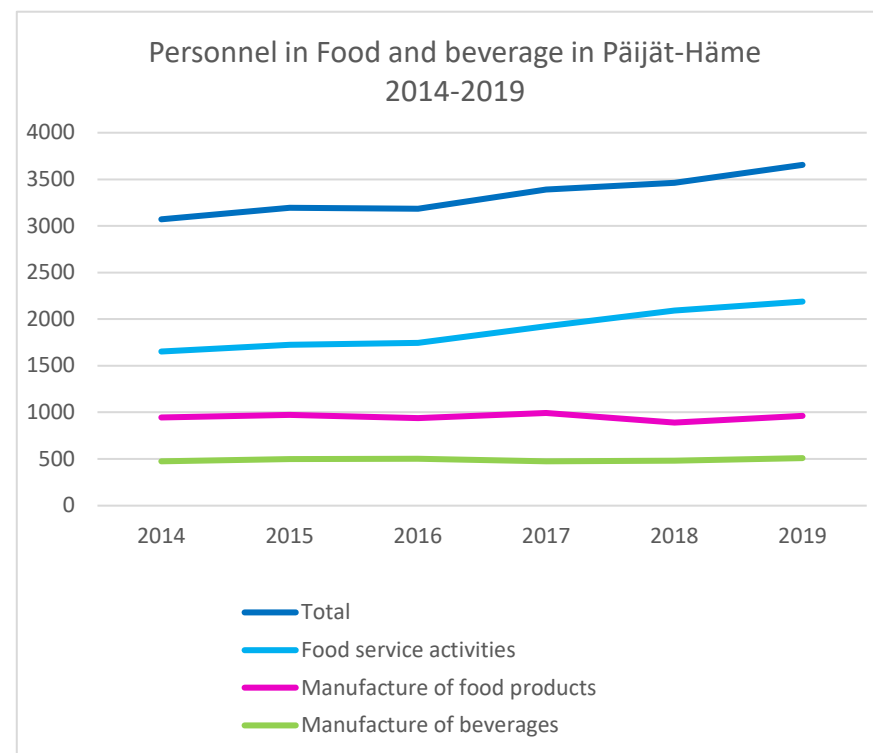


Source: Statistics Finland

The Food and beverage spearhead includes food service activities, and the manufacture of food products and beverages. These industries do not cover the spearhead completely, but they give a good picture of the status of the industries included in the spearhead. In recent years, the trend within the industry has been slightly upward in the region. In particular, food services have had a positive trend reflecting the overall development in service sectors. Food services is one of the largest industries in Päijät-Häme in terms of establishments and personnel. There are fewer establishments and personnel in the manufacture of food and beverages than in food services, but the beverage industry is very significant for the whole country.

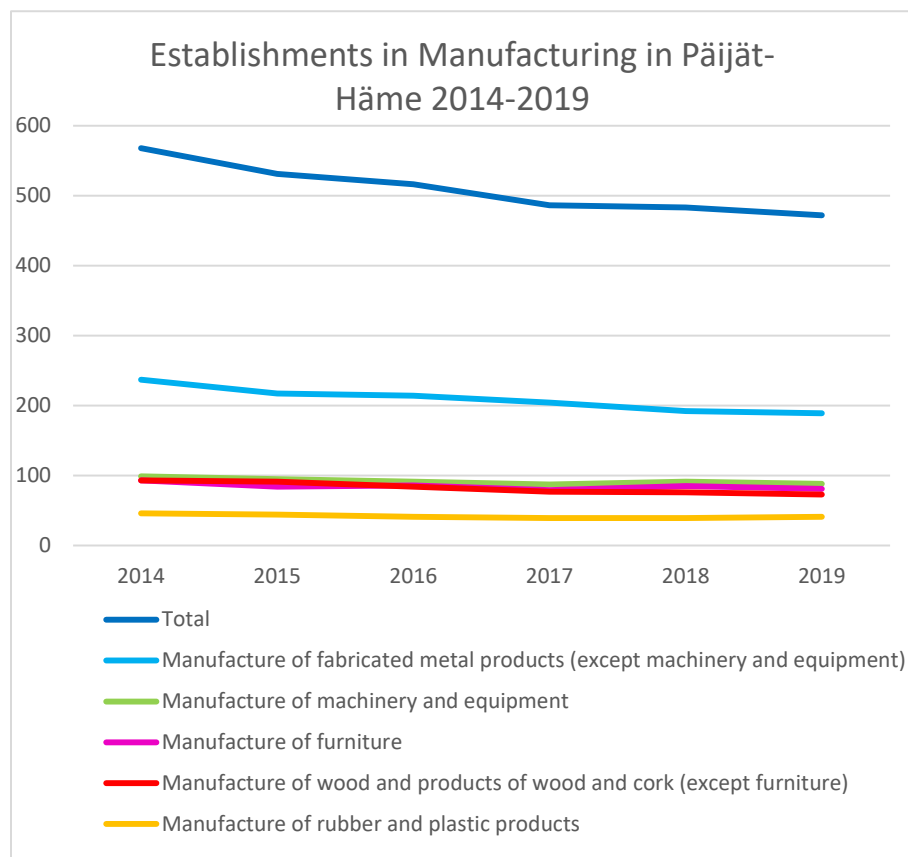


Source: Statistics Finland

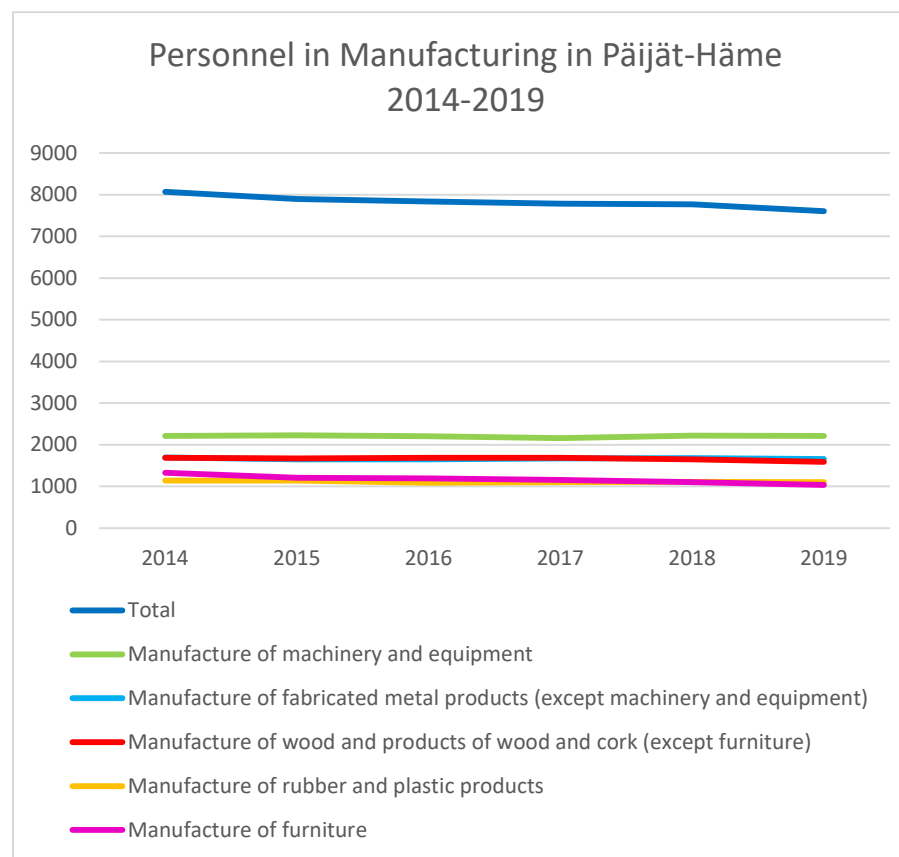


Source: Statistics Finland

The Manufacturing spearhead is based on the region's diversified industrial base. Although the number of establishments and personnel has been declining, industrial sectors are still the most significant employers in Päijät-Häme. The statistics show the diversified industrial base in the region. Instead of a single sector, the region is strong in the manufacture of machinery and equipment, metal products, wood, rubber and plastic products and furniture. In particular, the manufacture of furniture, rubber and plastic products as well as wood are significant in relation to the size of the region.



Source: Statistics Finland



Source: Statistics Finland

The S3 spearheads in the Päijät-Häme Region are mainly highly successful industries. Traditional sectors representing manufacturers are significant employers. In the spearhead Food and beverage, the manufacture of beverages is doing excellently, and food services is a growing industry. In the spearhead Sport, sports activities and amusement and recreation activities have an adequate business base and great potential internationally.

Transformation process in business and in industry

The region is part of a so called rust-belt and an area undergoing economic transformation. It suffers from job losses, and has an urgent need to transform its industry and to renew its business in order to improve welfare in the region. Therefore, restructuring should be strongly supported. Digitalisation and the green transition are themes presented by the European Union that fit this need. The transformation process in the region is supported by the S3 cross-cutting theme, i.e. sustainability. **Sustainability supports the process of economic change by providing user-driven development of services and products while implementing a green transition.** Thus, the cross-cutting principle of S3 in the region is its most significant point. Sustainability, including sustainable design, is an aspect that should be considered in for example project applications. Design is about both industrial and service design in a broad sense.

In addition to its strategic role, sustainability is also industry independent, meaning that it will contribute to developing not only the key sectors in the strategy but also other industries to meet the challenges of the green transition. In S3, however, it is a catalyst with three spearheads.

This positive structural change will be promoted through regional and structural policy funding and other financial instruments. These funds support digitalisation, business accelerators, piloting and testing environments, RDI activities, internationalisation and foresight. In addition to money, new innovations and technologies also require interdisciplinary solutions and collaboration. Thus, co-operation between different actors will be further developed and new actors will be involved in clusters and networks. There are not large multinational companies in the region, but the large companies that do exist and are established in the region are important developers of innovations. Their development work means that smaller companies in the network can benefit from it.

One of the main ideas of smart specialisation is to increase international cooperation in key areas. In addition, it offers an opportunity to make better use of the European Union's immediate sources of financing, such as Interreg and Horizon.

As S3 is also expected to create new business areas, all spearheads will have an empty space waiting for these openings. Innovative, sustainably designed new businesses or business ideas are more than welcome for a region striving to renew itself.

Spearheads



SPORT

This spearhead sharpens the previous spearhead that was called Sport and experiences. Smart specialisation develops specifically industries, so this spearhead focuses on coaching, professional sports, sporting events and supporting activities and technology. Sport is also about participatory events with emotional experiences and other creative activities around this business. Sport is also an attitude, so it is possible to look at tourism or well-being through Sport.

Developing sports-related tourism forms the basis for this spearhead, as does organising major events and providing testing environments across national borders. Digitalisation has a lot to offer here.

The Päijät-Häme Region and the city of Lahti aim to become the leading centre for year-round sports and exercise in Northern Europe by 2030. Lahti SportsHub is developing the region to become a diverse environment for sports and an attractive destination for local tourism and events. The region boasts international level training centres as well as research and testing environments, including Pajulahti Olympic and Paralympic Training Centre, the Sport Institute of Finland Vierumäki and Kymi-Ring, the only GP track in Northern Europe. Lahti and Päijät-Häme have also organised major international sporting events throughout the years. The Ironman competitions is just one example of many.

Sport is a very international spearhead. Large sporting events that are organised in Päijät-Häme attract international participants and visitors, as do the training and testing environments. Lahti Region and LADEC have projects through which winter sports know-how is exported to other countries, in particular to countries where winter sports are still developing, such as China.

At the Pajulahti Sports Institute and the Sports Institute of Finland Vierumäki, students can take a Bachelor's degree in Physical Education or other studies, and they have extensive testing environments too. Haaga-Helia University of Applied Sciences offers a Degree in Physical Education or in Sport Coaching and Management in Vierumäki. In addition, the LAB University of Applied Sciences' tourism and event management education and RDI services complement the competence base in the spearhead, not to mention design and technology, which is also available at LUT University.



FOOD AND BEVERAGE

This spearhead includes the food and beverage industry, restaurant and café business, creative activities related to food and beverage, and some parts of the tourism sector. The related primary production and RDI activities are also a key part of this spearhead.

One of the largest beverage factories and grain mills in Finland is located in the region, as well as other grain processors, for example a mash-producing plant. The Grain Cluster includes the entire production chain from raw material to the latest product innovations. The Grain Cluster in Päijät-Häme has brought together companies, primary production and RDI actors that are vital to the industry.

Large flagship companies in the sector are Finland's leading companies in their field. At the same time, smaller companies in the sector have benefited from their development. Extensive investments have been made and are being made in the region from by-products of further processing and production of grain (Fazer and Polttimo Group). Smaller mill operators are also investing and growing (Kinnarin Tila, Vääksyn Mylly). The Grain Cluster has also produced several product innovations, for example Fazer produces xylitol from oat hulls, and the family bakery business Viipurilainen Kotileipomo has a product called Puhtikaura that was chosen as the Finnish food of the year in 2016. The Grain Cluster has used solutions in the circular economy in its production processes, for example, mash is a by-product of beer brewing and could be used in paper and board production.

The sector has strong export potential. Internationally interesting product innovations and first-class local raw materials are the industry's strengths. The beverage companies Hartwall and Teerenpeli are gaining influence on the global market. Teerenpeli Brewery & Distillery has already achieved international recognition when it was awarded a prize as a best whiskey producer in the world in 2020. The international market is complemented by the region's vibrant restaurants and cafés, which also attract international visitors.

However, research and education in the industry depend mainly on vocational training. In Salpaus Further Education, one can study for a Chef's Degree, a Baker's/Confectioner's Degree or a Degree in Rural Entrepreneurship. However, the companies have good contacts with the University of Helsinki and Technical Research Centre of Finland VTT that both conduct research on food. The industry makes a lot of use of the circular economy in product development, and training and research on circular economy is available at LAB University of Applied Sciences and at the LUT University. Design studies are available at LAB University of Applied Sciences.



MANUFACTURING

Manufacturing refers to the value networks of the manufacturing industry in the Lahti region. These are approached from a cross-sectional sustainability perspective. The manufacturing industry is being developed in accordance with the green transition so RDI activities are looking for better design, manufacturing and distribution methods for companies. Companies have already transformed their business into a more sustainable direction. The RDI base of the manufacturing industry needs to be strengthened to ensure international export in a competitive market for sustainable products.

The basis of the region's economic structure is a diversified industry. A strong group of family-owned companies and SMEs has kept the wheels of Päijät-Häme rolling. Mechatronics is one of the most significant clusters in the region. Large companies in wood economy like Versowood and Koskisen are making big investments, and the value network that has developed around Raute is a strong international player.

The industry in the region is undergoing structural change. Some companies have already modernised their production, but there is still room for development, and at the same even more international potential. Increasing RDI activities in accordance with S3 and sustainable design solutions can lead the manufacturing industry and its partners to international success.

Salpaus Further Education offers a wide range of undergraduate degrees in the manufacturing industry. The education opportunities and RDI services at LAB University of Applied Sciences are comprehensive and they are being further developed as part of smart specialisation. Courses are offered in mechanical engineering and wood engineering, among other things, but new possibilities have been discussed. The LUT University's campus in Lahti offers university-level research and development, and perhaps it will be even more diverse in the future as social sciences support the implementation of engineering results.

SUSTAINABILITY

The cross-cutting sustainability brings together the two previous S3 spearheads in the region: design and circular economy. They now serve as an approach and a principle for developing the three new spearheads. Sustainability design uses working methods from service design and industrial design, and its data is based on natural sciences, engineering sciences and other fields related to sustainable development. The principle of sustainability thus binds together RDI actors in the region and their long experience of energy efficiency, resource efficiency, bio and circular economy, and design methods.

The region's education and RDI activities are first-class in terms of sustainability and design. LAB University of Applied Sciences has expertise in energy and environmental technology, sustainable solutions, and design, which covers the entire spectrum of design from industrial design to service design. The LUT University's campus in Lahti has expertise, for example in energy technology and circular economy.

A lot of international cooperation has been made in sustainability. Several international projects have been carried out in circular economy and design, and they have resulted in international networks. Different actors use them when assembling project consortia and strengthening international RDI activities. In addition, design has its own international network. The aim is to put together a European RDI platform for design knowledge, which will increase and develop RDI know-how, network and business opportunities.

Sustainability sets the boundaries for the three spearheads so that development focuses on the intersection points of this principle and the spearheads. This is also in line with the European Union's funding programmes so project actors will benefit from it. Instead of plain or conventional food and beverage production, sports or manufacturing, we will help in the transition of each spearhead into a more sustainable way of operating. The principle thus reflects the idea of a green transition. Digitalisation can also be linked to it when it supports sustainability. Being digital just for the sake of it is not aligned with this idea.

Sustainability as a cross-cutting principle guides the S3 in the region towards a smart specialisation strategy that is sustainable. *Smart Specialisation Strategies for Sustainability (S4)* is the Commission's new approach to smart specialisation. In the approach, sustainable development is a starting point and an overarching principle of all activities. It includes the sustainable development goals (SDGs), which alongside ecological sustainability also include social responsibility and economic continuity. In addition to development activities, the S4 approach focuses on governance structures so decision-makers and officials must be committed to sustainable development in their operations and decision-making. Sustainability as a cross-cutting principle brings the region's Smart Specialisation Strategy very close to S4 as development is focused on the intersections of this principle and the spearheads. At the same time, economic continuity is taken into account as traditional industries in the region strive for renewal. Sustainable development has also been taken into account in the monitoring indicators.

Challenges and solutions for innovation and digitalisation

One of the goals of the smart specialisation strategy is to support practical innovations so that companies can innovate and create new business. In addition to LUT University and LAB University of Applied Sciences, the university network includes the University of Helsinki, Haaga-Helia's campus in Vienumäki, and the Lahti University Campus. Secondary education is organised by Salpaus Further Education and a network of high schools. In addition, other education providers offer supplementary studies. The education network in the region supports the selected spearheads, and spearheads are expected to be specified after the spearheads and education are in interaction with each other.

Innovation activities and digitalisation as well as related challenges were analysed in a few projects in the region prior to the new programming period 2021–2027. The main challenges for disseminating innovation are access to funding, the commercialisation of results and the fact that SMEs are not familiar with using research results. In addition, Päijät-Häme did not have a university before, which has proven it difficult for SMEs to obtain highly educated personnel and to learn to use and benefit from academic RDI services in general. Funding is limited partly due to the uneven distribution of regional and structural policy funds nationally. One of the obstacles to commercialisation is the lack of capital, which is not uncommon elsewhere.

The production and other activities of some small businesses already make use of information technology while others have hardly digitised their operations at all. Small businesses may lack expertise in digital solutions, may have a weak market situation, or may not be willing to grow. All these have a negative impact on digitalisation. **Although there are pioneering companies in the region, SMEs in particular need more information and expertise on digitalisation and funding opportunities.**

The research and innovation system in the region has been developed in collaboration with research and education organisations, the business community and the public sector. The innovation system will be developed with regional and structural policy funding and with other national and EU funding. Open innovation platforms and product development laboratories that promote joint production and interaction have been built, for example, in the circular economy. In addition, business incubators and accelerators have been implemented, which create new business.

Cooperation between companies and research organisations will be further developed to better meet the needs of companies and research. One of the goals is to increase international research infrastructure and project networks through which new business areas and RDI partners are found.

Stakeholder cooperation and spearheads

The Päijät-Häme Regional Council together with its stakeholders has updated the S3 spearheads. In 2020–2021, roadmaps were drawn up for the previous S3 spearheads in the entrepreneurial discovery process (EDP). The aim of the roadmaps is to increase collaboration within and between regions and to integrate regional actors into international value networks. They specify the objectives of joint innovation activities and guide actors to invest in strengths that have the potential for growth and internationalisation.

The key players in each spearhead form a group that guides and monitors operations. This collaboration also provides resources for participation in international project applications and platforms, for example Sport has joined the ClusSport S3 platform. In addition to regular meetings of the spearhead groups, the regional council provides a common forum for all the spearhead groups so that possible good practices and common operating models for groups can be shared. Because it is also possible to combine S3 spearheads, groups networking across themes and industries is important. New roadmaps will be created for the renewed S3 spearheads, but in the spirit of the previous roadmaps.

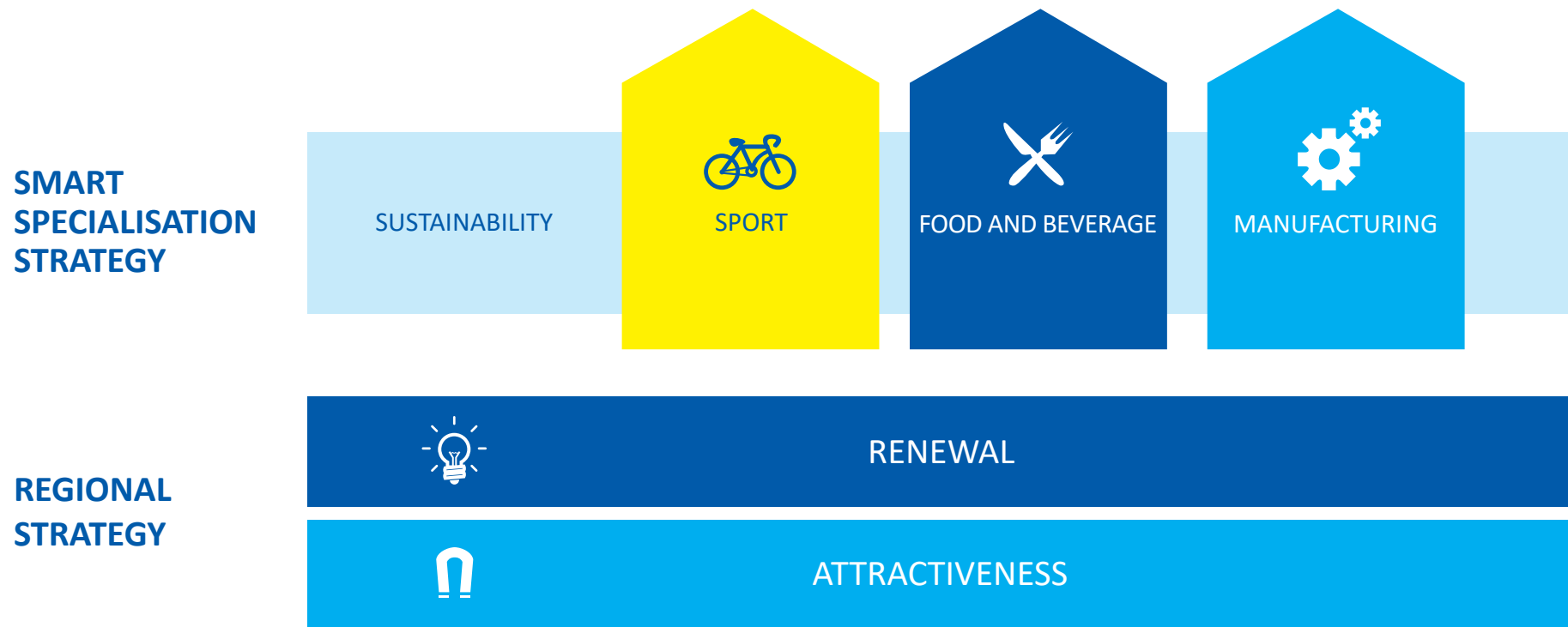
Follow-up and impact

A follow-up of smart specialisation is needed to assess the impact of targeted investments. The region's resources and the already existing qualitative and quantitative information will be taken into account in the follow-up work. The purpose of the roadmap work is to bring clarity to the concrete goals of the spearheads' activities and the contents that are followed up. How measures progress is regularly followed up by the spearheads' co-operation groups. The qualitative implementation of the objectives and measures of roadmaps is monitored through surveys. If necessary, the emphases in smart specialisation are changed as the operating environment and strengths develop.

S3 indicators

- RDI investments: R&D expenditure in Päijät-Häme
- Obtaining national and international funding for the region: MEUR
- Co-operation between educational establishments and businesses: the volume of LUT Universities' business co-operation
- Setting up of companies in the region: formation of companies
- Internationality: The value of Päijät-Häme export
- Sustainability indicators: greenhouse gas emissions in Päijät-Häme
- Industry-specific indicators: number of employees
- Qualitative follow-up: implementation of roadmaps

Strategy in a nutshell





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