MACHINE AND ENERGY TECHNOLOGY
WOOD PROCESSING
FOOD PROCESSING
WELLBEING TECHNOLOGY
TOURISM
WATER
BIOREFINERY

SMART SPECIALISATION IN POHJOIS-SAVO REGION

SLY & SAVY SAVO
POHJOIS-SAVO REGION

Population 250,000

Municipalities 18

Largest towns
Kuopio 120 000
Sillijärvi 22 000
Iisalmi 21 500
Varkaus 21 000

Travel times Kuopio–Helsinki
Train 4 hours
Plane 50 minutes
The capital of Pohjois-Savo region, KUOPIO, is a university town with a population of approximately 120,000, located by Lake Kallavesi. The Kuopio region, including the growing and vibrant SIILINJÄRVI of 22,000 people, is one of Finland’s most dynamic growth centres when measured by metrics of vitality and competitive variables.

With a population of 21,000, VARKAUS (picture above) is a modern industrial town located in the southern part of the region. The town’s success is based on international activities particularly in the energy technology and wood processing industries.

With its population of 21,500 people, IISALMI is an important hub for the northern part of the county. Iisalmi region and particularly VIEREMÄ are known for their internationally esteemed machine industry, strong wood industry and varied food production industry.

SUONENJOKI is famous for its strawberries. The region’s strawberry fields and seasonal greenhouses produce one third of the whole country’s strawberries and raspberries. Finland’s largest jam factory also operates in the region.

The excellence of know-how and varied natural resources of Pohjois-Savo offer great opportunities for growth and the development of innovative products and services.
Pohjois-Savo has plenty of top-notch international expertise in the technology industry. These businesses accounted for 40 percent of the county’s export activities and 20 percent of its employees.

Success stories in the machine and metal industry include forest machinery (Ponsse), specialty vehicles (Profile Vehicles), hydraulic pile driving machines and hydraulic cylinders (Junttan, Hydrolime) and mining machinery (Normet). Various global leaders in energy technology (Andritz, Sumitomo SHI FW), mechanical wood processing (Keitele Group, Lunawood, Stora Enso) as well as in the chemical and mining industry (Yara) also operate in the county.

The county has over 200 export businesses whose product and service innovations are top-notch within their respective industries. These globally well-known brands include Bella fiberglass motorboats, Amphion and Genelec sound systems as well as Myontec smartwear solutions.
In Pohjois-Savo, seven areas of development with strong international know-how and business activities have been identified, where through the advancement of technological solutions and expertise, the vitality and competitive edge of the economy can be ensured. These areas are: machine and energy technology, wood processing, the food industry, wellbeing technology, tourism, and, spanning across the others, water and biorefinery.

The regional economy currently relies on the machine and energy technology, wood processing and food industries. The success of these industries is vital to the region, and investments are made to ensure there is expertise and available workforce in these areas as well as to ensure the renewal of the industries. Industries are developing their functional services especially in export activities. The wellbeing industry as well as water processing and biorefinery are new, rising areas of business, and by strengthening these, Pohjois-Savo aims to make its economy more versatile.
World-class technologies

Product innovation aims at developing products according to client needs while creating added value. Using digital solutions, the client or end user of a product can be included in the development process. Unique and superior products have set us apart from our competitors. Product development is streamlined by a collaborative effort with clients and the manufacturing network.

Collaborative development within a network

As a prerequisite of maintaining profitability and a competitive edge, production methods are constantly must be developed to enhance profitability. In Pohjois-Savo profitability is improved e.g. with automation, robotisation, effective welding and assembly techniques, the application of digital solutions, 3D and by developing methods of leadership.

Pohjois-Savo supports the world’s leading ecosystem for the manufacturing of forest and mining machinery. The industry is very significant, since the annual export value for these companies is close to a billion euros. The growth has been fueled by broad-minded and active cooperation in development. Machine manufactures Normet and Ponsse have both played a significant role in this.

International energy technology and expertise

Productive energy production creates added value for the customer, which is at the core of an energy technology provider’s business idea. In developing energy technology, project skills, planning, understanding of the production and service chain, understanding of the energy technology of different fuels as a well as installation skills are emphasised.

Growth and new entrepreneurship arise from a skilled network of partners and subcontractors. The digital product and client documentation, effective delivery processes and quality and cost levels of the partnership network is constantly improved.
Savonian wood is relied on across the world

Mechanical wood processing companies in Pohjois-Savo are constantly finding new markets, e.g., from EU and Asia. There are many highly automatised sawmills which develop the products according to high quality standards. Developing new products has simultaneously raised the added value of timber. Mechanical wood processing and their by-products provide a good innovation and business development platform for wood-based bio-processing, other new products and a new circular economy. Along with high demand for pulp raw material, the production of logs is increasing. The circular and bio economies create business opportunities for both wood-based and other materials.

The entrance to the Jätkäsaari area in Helsinki is getting a new, unique wooden building complex called Wood City. The wooden buildings are constructed using LVL wooden veneer panels manufactured by Stora Enso in Varkaus.
Food Valley connects people from science, education, development and industry

There is prosperous food industry, SMEs and big companies, in the region as well as research, education, and services. Food Valley (Ruokalaakso) will complement the other food industry clusters in Finland.

Support services of food development are highlighted in the value chain of Food Valley, including smart specialization in new protein sources and gut health and fermentation. Food Valley’s regional network also includes specialisation in vertical farming, berry production, and sustainable milk production.

The primary goal of the industry is to support food export activities and food culture as well as strengthen the Savonians’ pride in their local food production chain.

Food production in the county (milk, berries and fish) provides opportunities for the development of products aiming both for health and indulgence. In product innovation, the development of food products and agriculture is both market and customer-centred. The goal is to build good practices and global examples with the various products and areas of production.
Combining well-being, health and nutrition expertise into one service package

Kuopio Health is a network committed to promoting well-being, food industry and health care technology competence, research and business life as well as health care industry awareness locally, nationally and internationally. Kuopio Health promotes development, research and new innovations based on customer needs and acts as a platform for new products and services.

Kuopio Health conforms to an open innovation model in combining the public sector, academic world, business life and end-users enabling the creation of new solutions and networks. We provide excellent health care expertise and training together with a quality operating environment and business networks for Finnish and global health care technology companies and innovators.

In addition region’s ecosystem covers pharmaceutical activities, software and information technology, data analysis and AI, virtual and augmented reality, measuring and sensor technology, automation and information networks just to mention a few.
An expansive network of water expertise

The Kuopio Water Cluster (KWC) is a comprehensive platform providing product development, testing and commercialisation services. Water Cluster aligns network of local universities and multi-disciplinary national research institutes, such as Geological Survey of Finland, Finnish institute for Health and Welfare, Luke - National Resources institute Finland and Finnish Food Authority. KWC will become a collaborative network for start-ups, SMEs and large companies to stimulate growth and innovation.

KWC’s strengths are water microbiology, water chemistry, groundwater and mining water expertise as well as especially digital technologies for water purification and monitoring. The water industry in Kuopio has particular know-how in mineral industry waters, including the research of risks to the environment. Product innovation in the water industry focuses on risk management, development of purification methods that can be industrially applied, environmental safety and health impacts. Additionally, digital services are developed for control and monitoring activities as well as for achieving real-time operations.

Yara is the world’s leading fertilizer company and provider of environmental solutions. Yara’s Siiilinjärvi operations are the company’s most versatile site, consisting of multiple factories and the only phosphate mine in Western Europe.
A new million-scale project is under way in Pohjois-Savo, which will strengthen the competitiveness of Finnish agricultural production, increase farmers’ and rural entrepreneurs’ knowledge of responsible production, and aim to slow down climate change. The Farm 2030 project includes Savonia University of Applied Sciences [extensive agricultural production, competence development and pedagogical skills and experience in business cooperation], Upper Savo Consortium of Education specializing in animal husbandry and the ecocompass environmental system) and the Natural Resources Institute Finland (Kuopio Research Infrastructure).

Agricultural entrepreneurship has become a bioeconomy, where besides arable farming and livestock farming, the impact of business on profitability, the natural ecosystem and social acceptability must be controlled.

FINNPULP is preparing to build the world’s first smart bioproduct plant in Kuopio. Intelligent production combines the entire ecosystem of the operation from raw material suppliers to logistics and maintenance with a joint digital platform.
A competitive edge for the travel industry is sought through internationalisation and attractive, high-quality products and packages offered in the international market. The strengths of the travel industry can be found in nature.

Nature tourism is at the core of development. This provides opportunities for nature tourism products e.g. in fishing, development of routes, waterway travel, hunting, foraging, hiking etc. Event travel is also strongly featured in the development. Culture and cultural travel products belong in the field of content travel. Sales and marketing emphasise digitalisation and embrace all the new tools and opportunities it brings.

Development requires resources, visibility, new talent, international marketing practices, cultural knowledge and a vision of what is needed to achieve true internationalisation. As a result, inter-county collaboration is developed under the brand Lakeland Finland.
TAHKO SKI LIFT PITCH is a startup event that pairs entrepreneurs with investors in a ski lift chair, on the stunning slopes of the Tahko Ski Resort in Kuopio.
Top-notch training and expertise

**University of Eastern Finland** is one of Finland’s largest research universities. With 15,000 students, the university employs nearly 2,800 people. This multidisciplinary university offers degrees in over 100 major subjects. There are four departments: the Department of Philosophy, the Department of Natural Science and Forestry, the Department of Health Sciences and the Department of Economic Sciences.

The University of Eastern Finland emphasises collaboration between different disciplines in its activities. The core interdisciplinary fields of research are centred around four global challenges: aging of the population, lifestyles and health, learning in a digital society, encountering different cultures, mobility and borders, and environmental change and dwindling natural resources.

**Savonia University of Applied Sciences** is one of Finland’s biggest and most varied universities of applied sciences. The organisation trains top professionals in seven areas: Design, Business, Sustainability, Travel and Hospitality, Music and Dance, Technology, and Social Welfare and Healthcare. These varied training programmes offer the opportunity to complete a degree either as a full-time student, part-time alongside work, or flexibly at the Open University of Applied Sciences.

The training units are located in Kuopio, Iisalmi and Varkaus. In total, the Savonia University of Applied Sciences has 500 employees and nearly 6,000 students.

Additionally, region has an expansive network of professional training. **Savo Consortium for Education** and **Ylä-Savo Vocational College** are responsible for versatile vocational training of youth and adults.

**THE SAVILAHTI PROJECT** is the most significant urban development project and a strategic top-priority project for the city of Kuopio. It strengthens the regional competitiveness of the Kuopio region and also helps in achieving wider regional, national and EU-level objectives. Public and private sector actors have been estimated to invest about EUR 1.5-2 billion in construction projects in the Savilahti area. The Savilahti project aims to develop a cutting-edge, comfortable and healthy area for residents, students, workers and researchers.
EDUCATIONAL INSTITUTES

- University of Eastern Finland, Kuopio Campus
- Savonia University of Applied Sciences
- Emergency Services College
- Savo Vocational College
- Ylä-Savo Vocational College

RESEARCH AND OTHER INSTITUTES

- Finnish Meteorological Institute
- Finnish Food Authority
- Finnish Medicines Agency
- Geological Survey of Finland
- National Institute for Health and Welfare
- Finnish Institute of Occupational Health
- Natural Resources Institute Finland
- KUH Neuro Center
- Kuopio Center for Gene and Cell Therapy
- Crisis Management Centre Finland