

Sparks. BY INNOVATION BOOST





Table of contents

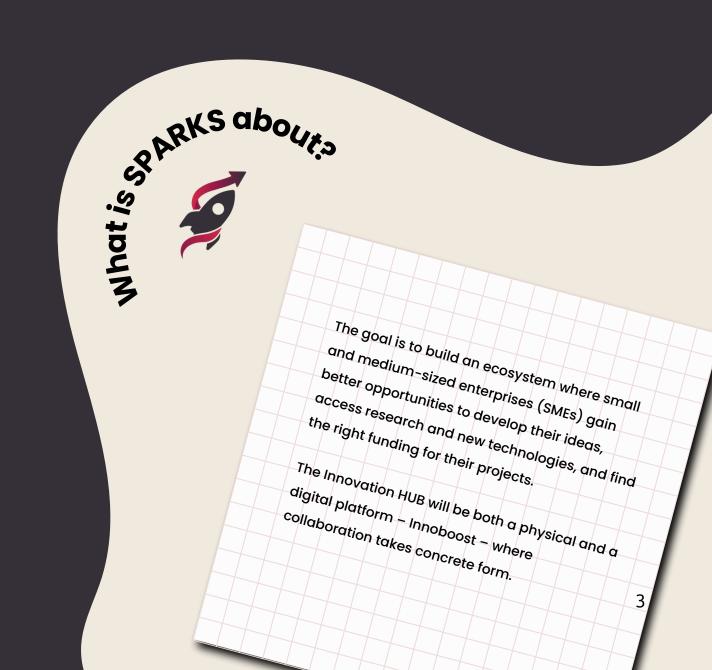
Innovation Boost Takes Shape in Kristinestad	3
What is SPARKS about?	3
How do we work?	4
Where are we heading?	4
Inspiration from Luleå: World-Leading expertise meets regional development	5
Current Research Highlights in Bioeconomy & Energy Systems	6
FOOD DAYS in Seinäjoki	7
Professor Markku Sotarauta: Research and Insights for the Future of Food Systems	8

Innovation Boost Takes Shape in Kristinestad

Innovation Boost as a project in Kristinestad is all about creating an Innovation HUB – a central meeting place where companies, educational institutions, and public actors come together to strengthen regional growth, competitiveness, and the capacity for innovation.

In a busy everyday life, it's not always easy to find time to think differently, explore new ideas, or simply dig a little deeper. That's why we are also launching **SPARKS by Innovation Boost** – a concept where we highlight current research from universities in Ostrobothnia and beyond. Who knows – maybe it's exactly what your company needs right now?

We welcome your suggestions and ideas on topics you'd like to learn more about!



How do we work?

For companies, this means new opportunities to grow:

- Support in navigating different financing options.
- Access to researchers and students who can act as problem-solvers.
- A platform for networking and knowledge sharing.

When business, academia, and society come together, synergies emerge that strengthen both innovation capacity and competitiveness in the region.

A key element of the initiative is also skills development. Through workshops, seminars, coaching, and digital courses, companies gain the tools they need to develop their business and prepare for future challenges. At the same time, we promote circular solutions and digital practices that contribute to sustainable development and long-term vitality.



Inspiration from Luleå: World-Leading expertise meets regional development

Luleå has long been a hub for innovation in the north, which is why the project group behond Innovation Boost also visited the city in June. Through initiatives such as Norrlandsnavet, the region has built an environment where students, researchers, and businesses collaborate to develop new skills and create the solutions of tomorrow. Students act as problem-solvers through site visits, field studies, and project assignments, while also contributing to the upskilling of existing workforces.

Norrlandsnavet at Luleå University of Technology is a unique development center for small and medium-sized enterprises (SMEs) in northern Sweden. With support from the Kamprad Family Foundation, it has created a platform where research, education, and industry meet to strengthen regional competitiveness and innovation capacity.

Here, business needs and academic expertise meet in a process where challenges are turned into research questions – and research results are translated into practical solutions.

The activities in "Norrlandsnavet" are built on four cornerstones:

- 1. Collaborative research, where PhD students and researchers work closely with companies to address concrete problems.
- 2. Lifelong learning, offered through short online courses combined with discussions and workshops to build new competencies.
- 3. Student collaboration, giving companies access to fresh ideas and energy through thesis projects, course assignments, and internships.
- 4. Knowledge sharing, with results spread through seminars, networks, and publications. The initiative is already delivering concrete results. Companies in digitalization, food production, and construction technology have received support to develop their business models and strengthen customer relations. The 2024 summer internship program matched nine students with local companies, covering costs while injecting new perspectives into business development.

Development projects range from Arctic greenhouse cultivation and self-driving agricultural robots to climate-smart concrete – all combining sustainability and innovation. By bringing together research, education, and business development, Norrlandsnavet has become a growth engine for northern Sweden – and a model for how local companies can grow through knowledge and collaboration.

Current Research Highlights in Bioeconomy & Energy Systems

Here are some exciting projects and studies from our region that showcase the future of sustainability, circular economy, and energy solutions – with a strong focus on food and agriculture.

Power of Potatoes (Novia)

This project explores how potato industry side streams could be turned into renewable energy, replacing peat and strengthening local energy self-sufficiency. For Kristinestad, where both agriculture and food processing play an important role, such innovations highlight how local raw materials can be transformed into new business opportunities and green energy solutions.

Novia - Power of potatoes

Project website

Hydrogen Economy in the Food System (University of Vaasa)

The project examines how hydrogen can support the food system, from fertilizer production to local energy and logistics. Kristinestad could benefit from such developments by connecting its agricultural base with emerging hydrogen solutions, potentially attracting investment and building new value chains around clean energy.

<u> University of Vaasa – Hydrogen</u> <u>Economy in the Food System</u>

Circular Economy Innovations (Good News Finland)

From recyclable packaging to surplus food sales and new materials from forest industry side streams, circular solutions are already making an impact in Finland. Kristinestad could draw inspiration from these initiatives to strengthen its own circular economy profile, supporting both local businesses and sustainability goals.

Good News Finland - Circular Economy Solutions

Demand Response – Electricity Flexibility in Ostrobothnia

This initiative develops ways for households and farms to adjust electricity use depending on price and availability, making the grid more resilient. For Kristinestad, with its mix of industries, farming, and households, demandside flexibility could help manage costs, support renewable energy integration, and strengthen energy security.

Novia - Demand Response Project

The Future of Food by 2050 (Sitra / University of Helsinki)

This foresight study anticipates major shifts in food production and diets, with plant-based proteins and cellular agriculture becoming mainstream. For Kristinestad, such insights are valuable for farmers, food producers, and policymakers who want to stay ahead of future consumer trends and ensure the region remains competitive.

Sitra - What Will Finns Eat in the Future?

Why this matters for Kristinestad

These projects highlight opportunities where local strengths in farming, food industry, and renewable energy can meet cutting-edge research. They show how small cities with strong agricultural traditions – like Kristinestad – can play a leading role in the green transition, attract new investments, and build resilience for the future.

FOOD DAYS in Seinäjoki

Food Days Seinäjoki 2025 brought together hundreds of participants from across the food chain — researchers, entrepreneurs, policymakers, and innovators — for three inspiring days of dialogue and discovery. Hosted at Rytmikorjaamo, the event has established itself as an international platform for exploring the future of food through the lens of research and innovation.

This year's program revolved around five forward-looking themes: food export, urban food strategies, food & tech, data for sustainable systems, and culinary culture. These themes served as entry points for critical discussions on how research and practical innovation can transform the food sector to be more sustainable, competitive, and resilient.



A highlight of the event was the seamless interaction between academia and industry. Researchers showcased the latest findings on sustainable food production and digital solutions, while entrepreneurs and startups shared real-world applications of technology and data. The matchmaking sessions further strengthened this bridge, enabling new partnerships that can drive both scientific progress and business growth.

Food Days emphasized not only innovation but also responsibility. Across seminars, panels, and networking, the message was clear: sustainability must be at the core of every new idea. From reducing waste to developing climate-smart food exports, the event underscored the importance of collaborative research and bold innovation in addressing global challenges. The 2025 edition left participants inspired and equipped with new insights, partnerships, and ideas that will shape the future of food systems both in Finland and beyond.

Professor. Markku Sotarauta:

Research and Insights for the Future of Food Systems



At Food Days Seinäjoki 2025, Professor Markku Sotarauta from Tampere University inspired audiences with his keynote on how research can guide the transformation of food systems. Known internationally for his studies on place leadership, innovation systems, and regional development, Sotarauta brought his expertise directly into the context of growth entrepreneurship in the food industry.

In his keynote, "Growth Entrepreneurship as the Spearhead," Sotarauta emphasized the importance of building strategic awareness of opportunities by identifying global and national markets and strengthening market exposure. He highlighted the role of flagship educational programmes in equipping entrepreneurs with the tools they need for competitiveness, and he stressed the value of branding and storytelling as powerful ways to enhance identity and visibility in the food sector. At the same time, he underlined the necessity of sharpening the research focus so that science can play a stronger role in value chains and innovation ecosystems.

As part of the FoodFlash programme, Sotarauta also presented a series of recommended actions to strengthen the entrepreneurial ecosystem. Among these were the appointment of a clear face and strong voice, such as a professorship in business development, to build international visibility, as well as the creation of search networks and identification of two to four partner regions for collaboration. He pointed to the importance of attracting start-ups and encouraging new ventures, while at the same time re-evaluating outdated branches to make room for growth. According to Sotarauta, the food-related innovation ecosystem must evolve to become more entrepreneurial and less institutional if it is to meet future challenges effectively.

Sotarauta's long-standing research on institutional entrepreneurship, leadership, and regional innovation directly supports these recommendations. His work demonstrates how places can mobilize knowledge, power, and collaboration to capture opportunities and strengthen their positions in global value chains. By combining academic insights with practical strategies, his contribution at Food Days highlighted how research-driven leadership can accelerate transformation in the food sector and ensure both competitiveness and sustainability.



BY







