innovation boost

Sparks!

BY INNOVATION BOOST

BUSINESS KRISTINESTAD

ÖSTERBOTTENS FÖRBUND
POHJANMAAN LIITTO

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About SPARKS

In the rush of everyday life, it's not always easy to find time to think differently, explore new ideas, or dig a little deeper. That's why we are launching ***SPARKS by Innovation Boost*** *– a concept designed to showcase 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.

What is SPARKS about?

The goal is to build an ecosystem where small and medium-sized enterprises (SMEs) gain better opportunities to develop their ideas, access research and new technologies, and find the right funding for their projects.

Welcome to December's edition of SPARKS

As the year draws to a close, I'm happy to welcome you to December's SPARKS. In this edition, we have gathered a selection of inspiring research, projects, and perspectives that highlight how innovation, sustainability, and collaboration are taking shape across regions and sectors.

SPARKS was created to make research more accessible, relevant, and actionable—especially for small and medium-sized enterprises. By connecting universities, companies, and communities, we aim to spark new ideas, encourage dialogue, and support concrete development work. This month's content reflects that ambition, with insights ranging from sustainable construction and energy communities to testbeds, fisheries innovation, and future-oriented thinking.

We hope you find inspiration, new connections, and perhaps even a few ideas worth exploring further. SPARKS is still growing, and we truly hope to continue developing the magazine together with you. Your feedback, ideas, and suggestions help shape what SPARKS can become —now and in the future.
Thank you for reading, engaging, and being part of the SPARKS ecosystem.

Warm regards,
Anna Bertills
Project Manager
SPARKS by Innovation Boost
Business KRS

sparks innovation day

Kristinestad to Host First-Ever Sparks Innovation Day on 21 January 2026

Kristinestad will host the inaugural **Sparks Innovation Day** on 21 January 2026, a day where innovation, research, and everyday life come together. The event is organized by Business Kristinestad as part of the *Innovation Boost* project.

The program runs from 11:00 AM to 4:00 PM and brings together **entrepreneurs, students, and community stakeholders** in a forum designed for inspiration, networking, and the exchange of ideas that can shape the future of business and society. Sparks offers a platform where local and international perspectives meet, research results are translated into practice, and industries learn from one another.

The event is free of charge.

REGISTER HERE

PROGRAM

Markku Sotarauta | Rosa Degerman | Ulf–Erik Widd | Mikael Ehrs | Jonna Almqvist | Johan Börjesson | Moderator Anna Bertills

10:30 Registration
Coffee and sandwich

11:00 **Innovation in Regional development**
Professor **Markku Sotarauta**
Leadership, institutional entrepreneurship, institutions, and innovation in city and regional development

11:45 **Innovation support and funding, Business Finland**
Ulf-Erik Widd, Account Manager, Accounts & Ecosystems Business Finland
Presentation of available funding instruments for companies and projects in research, development, and innovation, including examples of successful initiatives

12:20 **RISE (SWE)**
Johan Börjesson and **Jonna Almqvist:** RISE Processum's work and opportunities for collaboration. Best cases and future cooperation

13:10 **"The Power of Potatoes"**
Senior Lecturer **Mikael Ehrs**, Novia University of Applied Sciences

13:40 Coffee break

14:00 Project Manager **Richard Lähteenmäki**, Business KRS
& **Kaisa Penttilä**, Project expert, VAMK. " The Coastal Hydrogen Innovation Hub (CHIH) presents new education models and shows how companies can be part of the hydrogen value chain and upcoming projects.

14:30 Project manager **Pertti Miettunen,** KristiinaEco
New Business Opportunities through Sidestream Utilization: KristinaEco Living Lab

15:00 **Dare to Grow Sustainably**
Rosa Degerman, Sustainability Specialist, Bureau Veritas
Quality and Responsibility

15:30 **Summary & "Sparks of the Day"**
Recap of key insights, ideas, and connections from the day

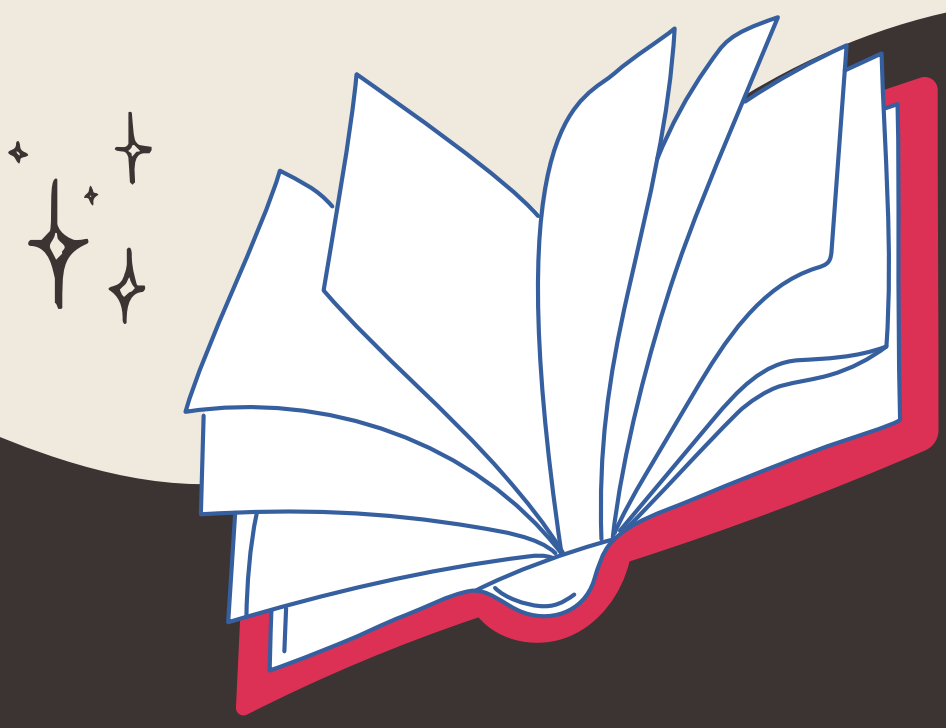
Recommended reading & research – This month's sparks

Understanding the future is the key to success

The companies best prepared for the future are those that dare to look beyond the obvious and manage multiple possible scenarios. With the right tools, it becomes possible to navigate uncertainty and take control of the future – with innovation at the core. In a world where the pace of change is accelerating and uncertainty is constant, it is essential not only to anticipate what lies ahead, but to actively shape it. Foresight and innovation management are two powerful tools in this work.

"You can see foresight as a method for strategic planning – a way of looking further ahead than companies usually do, exploring uncertainties and alternative futures," says Magnus Carl Eriksson, Head of Foresight & Strategy at RISE.

READ THE ARTICLE



Learn about: Energy communities as builders of security of supply

The project marks the beginning of a new era in the development of energy communities in Finland and strengthens local security of supply. Its goal is to create a scalable operating model for establishing energy communities that integrates decentralized energy production, community ownership, and crisis resilience.

In practice, this involves modeling innovative energy solutions such as agrivoltaics (combining solar panels with cultivation), small-scale hydrogen production, hydropower, energy storage, and contingency planning. Together, these solutions will enhance local energy self-sufficiency, reduce carbon dioxide emissions, and improve preparedness for power outages and crisis situations.

The project will also examine the impact of reforms to the Electricity Market Act on the establishment of energy communities, identify practical technological solutions, and develop a concrete model for implementation. The outcome will be an operating model that can be applied widely across Finland and serve as the foundation for the country's first regional energy community.

Implementation will take place in the village of Veikkaala in Mustasaari. The target groups include residents, village associations, farms, companies, and the municipality. However, the results and lessons learned will extend far beyond the local level, benefiting other regions as well as national climate goals and efforts to strengthen security of supply.

READ ABOUT THE PROJECT

Innovation systems for sustainability : insights from wood construction businesses and land use planning in Finland

This dissertation addresses a simple but significant question:
How can innovation help us build a more sustainable future?

How do regions innovate—and why do some succeed where others struggle?
This article explores these questions through new research focused on Finland, with a particular emphasis on wood construction and municipal land-use planning.

The study reveals a surprising gap in existing research: sustainability is still rarely addressed in studies on regional innovation systems, and we know far too little about what actually makes cross-regional collaboration work. By looking at both urban and non-urban contexts, the research uncovers clear differences in how innovation is built on the ground. Cities tend to rely on strong research organisations and informal networks, with a sharp focus on sustainable building, while smaller and rural municipalities prioritize ecological goals such as nature protection and ecosystem services.

The analysis also follows the money. Financial data from sawmills and wood-element manufacturers between 2012 and 2021 shows increasing pressure on the sector—especially for wood-element producers, whose profitability has weakened as material and labour costs rise. At the same time, companies that succeed in creating added value perform better, pointing to important pathways forward.

Taken together, the research highlights one key insight: innovation systems are deeply shaped by place. Border regions, small municipalities, and large cities all operate differently—yet each plays a crucial role in sustainability transitions like the bioeconomy. The takeaway is clear: building a sustainable future requires recognising regional strengths and strengthening cooperation at every level.

READ THE ARTICLE

Innovation programs for fishing, aquaculture, environment

The first day was jointly hosted by the innovation programs for fishing, aquaculture, environment, and BlueProducts, while the second day was organized by the marketing and quality program. Since its launch in 2017, the event has grown into a key annual meeting point where communication, networking, and development activities across the industry converge. Its main purpose is to share updates on ongoing innovation programs, gather feedback, and provide a platform for dialogue throughout the sector.

This year's program also featured an inspiring keynote by coach and author Marjo Rantanen, who highlighted customer-centric thinking as an everyday mindset rather than a separate project.

As in previous years, company representatives formed the largest group of participants, underscoring the event's strong focus on addressing industry needs. The Innovation Days foster collaboration, shared learning, and the exchange of ideas—laying the groundwork for a sustainable and competitive future for Finnish fisheries.

Smart sensors and fermentation are poised to transform the future of fish processing and quality management. Within the **Blue Products 3.0** project, researchers and companies are working together to advance sustainability, quality, and consumer-friendliness across the fish value chain.

Docent Oskar Laaksonen from the University of Turku is studying applications of sensor technology for fish quality control, while Anna-Liisa Välimaa, a food safety specialist at the Natural Resources Institute Finland, is exploring the potential of fermentation in processing fish-based raw materials.

Smart sensors enable real-time monitoring of fish quality, predicting spoilage risks before they become apparent. At the same time, controlled microbial fermentation can naturally enhance flavor, aroma, texture, and shelf life—offering a promising pathway for developing new fish products.

According to Välimaa, fermentation makes it possible to create innovative, ready-to-eat products and can also serve as a pre-treatment method for fish raw materials. She encourages producers to collaborate on developing new packaging and seasoning solutions to fully harness this potential.

Laaksonen's research is steering fish processing into a new era of artificial intelligence and sensor-based monitoring. Sensors detect early signs of contamination, while AI systems automatically signal when action is required.

Both research areas share a common objective: strengthening the quality, value, and consumer acceptance of Finnish fish. By combining advanced technology with traditional craftsmanship, the Finnish fish industry is well positioned to move toward a future that is more sustainable, safe, and flavorful.

How to create Your Own Testbeds

Can you test the future? The simple answer is yes—through a testbed. A testbed is an environment where new ideas, products, or processes can be developed and tested, either before they reach the market or while they are already in production. It may take the form of a small laboratory, a simulated environment, or a real-world setting where innovations are trialed and evaluated.

Testbeds are already in use across sectors such as construction, health, energy, food, digitalization, and the circular economy, often in connection with universities and research institutions. They bring together companies, academia, and public authorities to collaborate and learn collectively. This approach reduces risks, shortens the path to market, and increases the likelihood that innovations become genuinely useful. That is precisely what the **Innovation Boost** project aims to support.

In Kristinestad, collaboration comes naturally. The community is small enough for the public sector, businesses, associations, and residents to work side by side. Within the **Innovation Boost** project, several smaller test laboratories have already been identified in the region, while in Vaasa, testbeds are connected to VAMK, Novia, and the University of Vaasa. In other words, the infrastructure is already in place, even if it is not always visible.

In Sweden, Vinnova has invested heavily in *Testbed Sweden*, a network of open environments where companies, researchers, and public actors can test new ideas under real-world conditions. These are places where innovation moves beyond theory and PowerPoint slides into practice—where ideas meet reality.

Although testbeds are often linked to research, they are equally about daring to experiment, fail, and learn together. They represent a mindset, a cultural shift, and in many ways, small cities like Kristinestad are particularly well-suited to embrace this approach.
It also creates business value by shortening development times, identifying pilot customers, and building new partnerships.

For example, if Kristinestad were to establish a testbed for sustainable tourism, progress could be measured through collaborations, new products, increased overnight stays, or reduced environmental impact. The key is to link experiments to tangible outcomes, turning testing into both learning and growth. This requires courage: the willingness to showcase unfinished ideas, share data, and invite others to contribute. As Sweden's experience shows, when you dare to do so, bigger things happen. Testbeds have not only generated innovations but also built networks, created jobs, and strengthened regional identities as places of the future.

Kristinestad has a genuine opportunity here. While many cities attempt to reinvent themselves through grand strategies, smaller towns already possess what money cannot buy—proximity, trust, and human scale. That is where innovation can truly be tested, and where results can be seen in people's daily lives.

Testbeds do not need to begin in big cities or high-tech laboratories. They can start small, locally, and grow from there. In the end, innovation is not about technology—it is about people. And in that sense, small towns may already be one step ahead.

Three tips

1. **Start small and clear.** Define what you want to test, why it matters, and what questions you want answered. Focus on a few concrete goals to make learning manageable. Collaborate with local universities — they're happy to help.

2. **Build networks and collaborate.** Involve businesses, municipalities, associations, and residents. A testbed works best when multiple perspectives meet and everyone contributes their expertise.

3. **Measure, learn, and share.** Track results, document what works and what doesn't, and be open about the process. Both successes and failures drive learning and progress.

Early insights from our Innovation & funding survey – still time to participate

We recently launched a survey to better understand how local companies view innovation and funding opportunities. Several businesses have already shared their experiences, and there is still time for those who have not yet responded to make their voices heard. Below is a brief overview of the insights gathered so far.

The majority of participating companies represent the service sector, with a smaller number from other fields. Across the board, innovation is seen as vital for the future, and many describe a strong or steady willingness to develop new products, services, or processes. The appetite for renewal is clearly present, even if resources and conditions vary from one company to another. Some businesses have introduced new products or services in recent years, while others have developed internal solutions to meet emerging needs. Collaboration in innovation or participation in research and development projects appears less common among respondents at this stage.

When it comes to funding, many companies report only a basic understanding of available opportunities. Some feel uncertain about where to begin, while others say they would benefit from clearer guidance. Despite this, curiosity about trying new methods, technologies, or partnerships remains high.

Respondents also shared ideas on how to make funding applications easier. Suggestions include more concrete guidance throughout the process, simplified bureaucracy, and better pathways for young people to access work and career opportunities. The complexity of existing support systems was a recurring theme.

Collaboration with vocational schools, universities, or research institutions varies widely. Some companies work with educational partners regularly, others occasionally, and some express interest in doing so in the future. A few respondents report no specific needs at the moment, while others would welcome more direct information—for example, alerts about young people seeking internships.

These early insights highlight both the strengths and challenges of our regional innovation landscape. Each additional response helps refine the picture, so if you have not yet participated, we warmly encourage you to complete the survey.

This month's "must follow"

Follow the development of **KristinaEco**, where circular bioeconomy meets practice. Through collaboration between companies, research, and local actors, KristinaEco turns side streams into new business opportunities and drives the transition toward a more sustainable and circular economy.

Solutions for bioeconomy logistics from KristinaEco

New solutions for logistics and transport planning in the bio-circular economy will be developed in KristinaEco. The new SmartBioLog project aims to make more efficient and sustainable use of the region's side streams, such as fish farming, potato cultivation, and forest biomass fractions. Logistics is often the largest cost factor in bio-circular economy business, and its optimisation is a prerequisite for the emergence of new processing and circular economy solutions.

Business Kristinestad coordinates the KristinaEco Living Lab activities in collaboration with universities of applied sciences, research institutes, and companies. The aim is to bring together regional actors, map mass flows and their locations, and develop digital and AI-based tools for optimising routes and transport.

The project increases cooperation between primary production, the logistics sector, and research organisations and supports the creation of new, low-carbon business models. The results will be published openly on the KristinaEco.fi website and can be used more widely in the development of the bioeconomy and green transition.
The project supports the Ostrobothnia regional plan for a just transition and the objectives of the Renewing and Competent Finland 2021–2027 program by strengthening the sustainable economic structure and new job opportunities in transition areas.

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