

Nordic Testbed Network



Supporting digital transformation in the Nordic bioeconomy

Digitalisation plays a vital role in the rapid development of the Nordic and Baltic bioeconomy. Access to **cutting edge platforms for development, so-called testbeds**, where new digital knowledge and technology can be developed is fundamental. Managing a testbed is however a complex task.

To facilitate the development of new and existing testbeds, the Nordic Testbed Network aims to **unite and strengthen testbeds** aimed at supporting the digital transformation of the bioeconomy.

The Nordic Testbed Network is managed by Nordic Forest Research (SNS), Nordic Agri Research (NKJ), and the Nordic Council of Ministers' working group on fisheries and aligned with initiatives such as the North Digital Declaration and the Nordic Bioeconomy Program.



[Sign up here](#) by November 4th

Participating at the event is free of any charge

Organising a testbed

Focus: funding, partnerships, networks

Join us online:

Virtual meeting

WHEN: November 18, 10.00-12.00 CET

WHERE: Online via *Zoom*, link will be sent out a couple of days before the meeting

FOCUS: Highlighting opportunities and best practices, as well as challenges with regard to organising a testbed

AGENDA

- **Welcoming our new testbed members**, *Blaize Denfeld (SITES), Anda Ikauniece (LIAE), Andrius Sutnikas (AquaVIP), Jens Petter Wold (DigiFoods), Anta Sparinska (Latvian i-Garden)*
- **Keynote lecture: An inspiring example – Nordic Proof**, *Siri Stabel Olsen, Advisor Norway Health Tech and coordinator of Nordic Proof*
- **Panel discussion: Organising a testbed**, *Thordur Reynisson, Senior Adviser and Head of Program Nordic Innovation, Jonas Engström, researcher RISE Research Institutes of Sweden and coordinator of the testbed for digitalised agriculture, Carmen Galindo Rodriguez, project manager EIT Food*
- **Interactive session**, *all participants are invited to discuss and mingle*



INTRODUCING THE TOPIC

Sharing experiences and learning from each other – how to organise a testbed?

- The topic **Organising a testbed** has been highlighted as interesting by several of the network's members, spanning areas such as financing, partnerships, networks, and more.
- Looking at the members of the Nordic Testbed Network, clearly illustrates that there are **many different ways of organising a testbed**.
- At this virtual meeting you will get the chance to **learn from others**, as well as **sharing your experiences** on this topic.
- While waiting for November 18th, have a look at the following pages to meet our new **testbeds members** and get to know our **speakers**.
- **We are looking forward to meeting you virtually in November!**





NEW TESTBEDS JOINING THE NETWORK



- **Latvian i-Garden** aims to contribute to a sustainable development of the plant nursery sector by enabling plant monitoring and tending functions as well as automation and digitalisation of the production process.
- The solutions developed will be applicable to monitoring, management and daily maintenance activities of nurseries, tree nurseries, as well as large gardens and include sensors, cameras, machine learning and artificial intelligence solutions.
- The testbed is located at the Bulduri Horticultural school and the Bulduri Biotechnological centre in Latvia.
- At **AquaVIP**, experiments are carried out focusing on innovative solutions with the potential to be implemented into aquaculture business in the South Baltic area.
- The experiment list includes for example establishment of artificial feed chains for the culture of sensitive fish larvae and RAS technology optimisation.
- AquaVIP is led by Klaipeda Science and Technology Park, accompanied by University of Rostock, University of Gdańsk and Klaipeda University.



NEW TESTBEDS JOINING THE NETWORK



- **The Latvian Institute of Aquatic Ecology (LIAE)** is a public research institute, an agency of Daugavpils University. It provides scientific support to regional partners looking to use coastal resources, foster the local development and improve the state of marine environment.
- The marine environment – its quality and processes – has always been a special focus of LIAE. Recently, emphasis has been put on the wider use of remote observation methods, such as smart buoys, satellite measurements and drone observations.
- **SITES – Swedish Infrastructure for Ecosystem Science** is a national infrastructure for terrestrial and limnological field research, aiming to promote high-quality research through long-term field measurements and field experiments, and by making data from these activities openly available.
- At the core of SITES is a set of active and well-equipped research stations representing a variety of climatic zones and ecosystems across Sweden, including agricultural land, forests, wetlands, mountains, lakes and streams.
- SITES is funded by the Swedish Research Council, together with the principals of the research stations. The coordinator of SITES is the Swedish University of Agricultural Sciences (SLU).



NEW TESTBEDS JOINING THE NETWORK



- **SFI Digital Food Quality (DigiFoods)** will develop smart sensors for food quality assessment directly in the processing lines. The obtained information will be used for optimisation of processes and value chains, thereby making the food industry more efficient and sustainable.
- DigiFoods will develop sensor solutions based on a fundamental understanding of food science, processing and modern sensor technology. Moreover, it will introduce robotics to enable automatic measurements in challenging processes and in the field.
- DigiFoods is led by Nofima, with Sintef Digital and the Norwegian University for Life Sciences (NMBU) as the major scientific partners.



SPEAKER BIOGRAPHIES



NordicProof

Testing solutions for
world class healthcare

- **Siri Stabel Olsen** is on a mission to help the Healthtech industry with testing and industrialisation of their products in pipeline. She has a Master of Science in Chemistry and has vast experience from both technical and commercial leadership roles in the life science, polymer and medtech industry. Siri is engaged in various projects for Norway Health Tech, the largest health cluster in Norway. Norway Health Tech has the operating responsibility of the Nordic Proof network on behalf of all the consortium partners. Siri is one of two coordinators of Nordic Proof.
- **Nordic Proof** is a true Nordic partnership consisting of the largest public University Hospitals in the Nordics. These Nordic Proof partners open their facilities for testing and verification of new solutions developed by the healthcare industry. Nordic Proof focuses on testing of medical devices and are open for both Nordic and international industry. Nordic Proof provides test services throughout a company's development cycle, from access to clinical professional for early evaluation of user needs and all the way to a full clinical investigation.



SPEAKER BIOGRAPHIES



- As a researcher at the research institutes of Sweden (RISE), **Jonas Engström** is engaged in autonomous and electric farm machinery. He has a MSc in Agricultural engineering and Computer science and experience from farms and Lantmännen, an agricultural cooperative. At RISE, Jonas is the project manager of the Testbed for digitalised agriculture.
- In the **Testbed for digitalised agriculture**, innovations for tomorrow's farmers can be developed. Today, large amounts of information are generated in agriculture, both by machines and cultivation systems, but the overall analyses are done manually and are based on intuition and experience. The purpose of the testbed is to create an arena for collaboration on new technology for agriculture, enhancing both sustainability and profitability of the sector.
- In the testbed, companies and researchers can develop new decision support systems for agriculture and testing how new autonomous and electrified machine systems can be used. The testbed is coordinated by RISE and involves partners like the Swedish University of Agricultural Sciences, industrial companies such as Ericsson and Telia and actors from the agricultural business.



SPEAKER BIOGRAPHIES



- **Carmen Galindo Rodriguez**, project manager at EIT Food, is an agricultural engineer with an inquiring mind. After a few years dedicated to food production herself, she jumped into the innovation arena, to support start-ups and SMEs in their product development path towards the market. This has brought her to be updated on the state of the art in several areas such as food technology and water technologies. She strongly believes that through sciences, innovation and passion we can change the way we live to make this world a better place.
- **EIT Food**, together with other knowledge and innovation communities – EIT Manufacturing and EIT Digital – is fostering the adoption of digital solutions such as artificial intelligence and 5G by the European food industry to remain competitive. This is done by supporting the establishment of innovative end-to-end, customer-centric testbeds for the food and beverage sector. The testbeds constitute practical learning environments where SMEs can gain hands-on experience and get to understand the potential return on investment in different technologies. These learning environments have been proven beneficial to foster the digital transformation and the overall competitiveness of the European (food) industry.
- Currently, EIT Food is supporting the development and validation phase of three different testbeds focusing on the reduction of food waste and loss, the increase of efficiency, the reduction of occupational accidents and, overall, derisking the investment on new technologies. In the longer-term, the hope is that this will encourage a larger number of SMEs from various sectors to adopting digital manufacturing solutions.



SPEAKER BIOGRAPHIES



- In his role as Senior Adviser and Head of Program at Nordic Innovation, **Thordur Reynisson**, works to connect people, businesses, and organisations for a sustainable future. Thordur has a Master of Laws (LLM) from McGill University in Montréal. Before joining Nordic Innovation, Thordur worked at the Ministry of Industries and Innovation and the Ministry of Finance in Iceland. He has been a board member in various notable companies and chaired committees on investments and innovation. At Nordic Innovation, Thordur is head of the *Sustainable Ocean Economy* program and co-responsible for the *Health, Demography and Quality of Life* program.
- **Nordic Innovation** is an organisation under the *Nordic Council of Ministers*, which aims to make the Nordics a pioneering region for sustainable growth by promoting entrepreneurship, innovation and competitiveness in Nordic businesses. Nordic Innovation is working towards the *Nordic prime ministers' vision* that the Nordic region will become the most sustainable and integrated region in the world in 2030. They support programs and projects which contribute to fulfilling the goals of the *eight initiatives for a greener post-COVID-19 business sector 2021-2021* launched by the Nordic ministers for business and innovation, and the *Nordic Co-operation Programme for Innovation and Business 2018-2021*.