



## Hello, network!

We are happy to welcome both old and new readers to our quarterly newsletter! The purpose of this letter is to keep you updated on what is happening across the network and to share relevant topics. Don't hesitate to contact us with any input or ideas on what to highlight here!

[Contact us](#)



## Save the date

### Virtual event end of may

We are currently gathering valuable input and questions from our testbed members regarding

Digital Twins and how they can provide support to innovation and bioeconomy. The month of May will be the occasion to meet again online and discuss the topic.

We will also take the advantage of this moment together to communicate about our physical event this autumn. Make sure to save the date and join us for yet another interactive event! More information and the invitation will be sent shortly after our April mingle.

*Illustration: NTN*

[Nordic Testbed Network website](#)

## NTN Morning mingle April 9th 09:30-10:00 CET

NTN's upcoming morning mingle will be the occasion to follow-up on our latest event and discuss the following elements together:

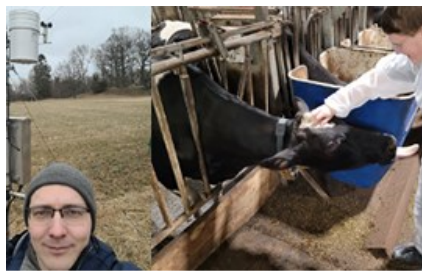
- NTN online event in May about digital twins
- Share your questions with us
- Date and invitation communication
- Short members updates

An invitation has been sent to testbed members, confirm your participation through the booking!

You haven't received the invitation but would like to join? Contact

[tatiana.proisy@analysismason.com](mailto:tatiana.proisy@analysismason.com) to receive an invitation.

[Receive an invitation](#)



## SLU Gigacow, supporting digitalisation and precision dairy farming

Production-related data from cows can be compiled and interpreted using SLU's unique resource for dairy data collection, Gigacow. All major research project begins with collecting data and with Gigacow researchers can plan better and complete projects faster. The data is collected via the farm's management system and Växa

Kokontrollen but can be supplemented with other data from open resources or sensors installed at farms on a per-project basis. After five years of data collection and refinement of Gigacow, it has reached a point where it supports more and more projects and is also well positioned to serve as a testbed for new equipment and management practices.

In addition to supporting research projects and development SLU Gigacow is also keeping an eye on technology development in agriculture with the aim of helping farmers to find the best technology and help technology companies testing their products on the Swedish market. In this role the testbed will also be an important part of the new Knowledge hub for digitalization recently funded by the Swedish Board of Agriculture and organized by Agtech Sweden.

*Photo: Digicow*

[More information here](#)



## Digital Twins for the marine and ocean areas

Just as in other sectors, digital twin of the ocean (DTO) is a virtual representation of a system and processes, created through data integration, modelling, and simulation techniques. In the context of the ocean, the DTO aims to create a comprehensive and dynamic digital replica of the marine environment, including ocean currents, temperature, salinity, marine life, ecosystems, and human activities. Europe's DTO initiative, launched in 2022 is now set to be operational in 2024.

DTO aims to democratize ocean knowledge for policymakers, businesses, researchers, and citizens. It will offer interactive decision-making tools based on science and data, with a core DTO providing baseline data and models, augmented by custom "local twins" for specific needs. Additionally, there's a need for a digital twin connecting land to sea, crucial for shelf seas like the North Sea and Baltic Sea. Despite covering less than 10% of the global ocean, shelf seas are vital for fisheries and face climate-related challenges like sea-level rise and coastal erosion. A shelf sea DTO would address resource management, offshore wind, aquaculture, climate change impacts, and ecosystem health, aiding in sustainable marine management amidst climate change.

*Picture: Map of the Baltic Sea and the North Sea. EEZ – exclusive economic zone. Source: Andersen J.H., 2012.*

[More information here](#)



## Join the Smart Bioeconomy Bootcamp for students, deadline april 4!

Join a 5-day Bootcamp for highly motivated students ready to learn about digital revolution in sustainable food, bioeconomy and agritech business and entrepreneurial skills!

**When:** May 27–31, 2024

**Where:** Bioeconomy Campus, JAMK University of Applied Sciences, Tuumalantie 17, Saarijärvi, Finland

**To whom:** For international and Finnish students of university and university of applied sciences interested in smart bioeconomy and agritech and entrepreneurship; young people having a startup operating in the field of smart agriculture and

bioeconomy; young people aspiring to become entrepreneurs

### Goals, learning and understanding:

- sustainable food and biomass production chain (sustainable food, feed, and fiber)
- role of digitalization and new business opportunities related to data and analytics
- open innovation and creativity
- modern problem-solving, innovation development and entrepreneurial skills

Participation is free-of-charge! More information and registration here before **April 4th!**

Bootcamp courses, company visits with transportation and Bootcamp accommodation are free-of-charge. Meals during the bootcamp are at your own expense, as well as your travel expenses.

*Photo: Jamk*

[Registration](#)



## EU robotics forum 2024

Our members from Ouluzone+ recently participated in EU robotics forum 2024 in Rimini, Italy. The forum, held on March 13-15, was the opportunity for Rauno Heikkilä to present Ouluzone+'s work on Autonomous Swarm for Infra Construction. The workshop covered the distinction between automating a single work machine and coordinating a swarm of machines. Focus was brought on the prerequisites for forming a cohesive swarm and led to discussion on how automation could enhance the efficiency of both

individual machines and the collective swarm.

Participants were introduced to ongoing research projects in Finland and Japan, showcasing examples of functional swarm control systems through videos of experiments and real-world applications. The workshop aimed to facilitate discussions on the opportunities and challenges presented by swarm automation, encouraging engagement from the robotics community and fostering collaborative evaluation of its potential applications across various industrial sectors.

Picture: European Robotics Forum

[See the video](#)



### International bioeconomy and agritech accelerator programme for startups is launched

To startups and growth companies in agritech and bioeconomy: the call for the BioBoosters accelerator programme is now open!

The programme is targeted at international startups and growth companies in agritech and bioeconomy with special focus on data-driven solutions. The 6-month hybrid programme offers

the attendees not only a tailored growth plan, but also access to valuable industrial partnerships, investor contacts and unique testbed environments. Programme is run by Jamk University of Applied Sciences in Finland, with the support of corporate and investors partners such as Valtra, AGCO Power, Neste and Innovestor.

Picture: Jamk

[Apply here – deadline April 30th](#)



### Troëdsson forestry teleoperation lab is working on remotely controlled soil preparation

Skogforsk has received funding from the Troëdsson Foundation to advance the development and demonstration of remotely controlled soil preparation techniques. The goal is to bring the technology around remote control of forest machines closer to application.

"By developing and testing remotely controlled

land preparation, we find out what additional knowledge and technology is needed for the method to work in forestry," says Martin Englund at Skogforsk.

Image: Skogforsk

[Read more here](#)



### News from Drone Centre Sweden

The Swedish Drone Center in Västervik is now expanding by building two hangars for development, testing, production, evaluation and demonstrations of UXVs. ACC-Innovation and SAAB Skeldar invested in the testbed together with Västervik Development Center (VUC).

It is now possible for companies and other organizations to use the 40 x 60 km (2400 km<sup>2</sup>) geographical UAS-zoon for tests with bigger,

faster, heavier and higher flying UXVs in a legal, safe, secure and convenient way. Moreover, the testbed gathers a unique airspace and geographical area, with most common geographical features and a pre-defined SORA, also coverage by Telia, Teracom (other telecom providers) and Ericsson as well as Cyber safe SWEPOS augmented GNSS for operations BVLOS.

The annual UAS Forum Sweden conference will also be organized 2024 Sept 3-4 in Västervik.

Picture: plan for the test bed and UAV development center, Västervik

[Drone Center Sweden page here](#)

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[nordictestbednetwork.se](http://nordictestbednetwork.se) [maria.tunberg@analysismason.com](mailto:maria.tunberg@analysismason.com)