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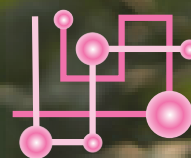
# VISION 2030:

## Nordic and Baltic Testbed Network



## Co-creating sustainable solutions for a digital bioeconomy

The network members aim to co-create sustainable solutions supporting the digital transformation in the Nordic and Baltic bioeconomy. By doing so, the network will increase the general awareness of the role of testbeds and digitalisation in the development of the bioeconomy and facilitate knowledge and technology transfer between testbeds the Nordic and Baltic countries.



# Defining core concepts



## Bioeconomy

**Bioeconomy** refers to the biomass-based part of the total economy. It is often associated with concepts like green economy and circular economy. In the Nordic Testbed Network, it is defined as agriculture, forestry, fisheries and aquaculture and focus lies on primary production.



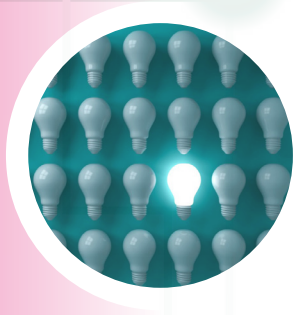
## Digitalisation

**Digitalisation** is a process of comprehensive social changes (e.g. new business models and infrastructure solutions). Digitisation is one component of digitalisation and refers to the conversion of information from analogue to digital format.



## Testbeds

**Testbeds** are physical or virtual environments where businesses, academia and other organisations can interact in the development, testing and introduction of new products, services, processes or organisational solutions in selected areas. A well-designed testbed has effectively integrated both "hardware" (equipment, physical facilities etc.) and "software" (competence, organisation, service offerings etc.).



## Co-creation

**Co-creation** implies engagement of various stakeholders including end users to generate and implement new ideas. Co-creation requires interdisciplinary coordination in which participants are heard, and learnings, ideas and insights shared. The aim with co-creation is to improve innovation processes and establish shared ownership of developed solutions.



## Sustainability

**Sustainability** considers meeting the needs of the present without compromising the ability of future generations to meet theirs. Being sustainable takes into account the preservation of biodiversity and ecosystems, reduction of greenhouse gas emissions and working towards a more circular economy. These actions have the common goal of keeping ourselves within the planetary boundaries.



# Milestone 1

## Increased knowledge sharing within the network and between network members and experts

● The network will continue facilitating learning processes and knowledge exchange between Nordic and Baltic testbeds in the intersection between digitalisation and bioeconomy. Areas for learning include both generic issues related to the management of a testbed and specific subject areas to explore.

### Areas to explore

#### Examples:

- User inclusion: enabling interoperability, interfacing and swapability
- Commercialisation: advancing an innovation from prototyping to a commercial stage
- Training: informing about new solutions and ensuring capabilities to use them
- Data management: discussing issues related to data access, quality, reliability, and security
- Digital Twins: exploring methods and use cases

# Milestone 2

## Increased interaction among network members with startups, industry players and end-users

● The network will support members in showcasing their research and testbed facilities to the industry. Startups are in focus, but more established small and medium sized companies may also be targeted. End-users will be included in the dialogues to ensure focus on solutions with high market relevance. Increased collaboration with the industry and end-users may facilitate the application of new digital technologies and drive innovation in the bioeconomy.



# Milestone 3

## Placing sustainability at the centre of the Nordic Testbed Network's activities

● The network will emphasise its focus on solutions supporting a sustainable development of the digital bioeconomy. Sustainability here refers to both environmental and social aspects such as biodiversity, emission reductions and digital inclusion. Increased focus on sustainability will show the benefits with the digital technologies developed at the testbeds and allow an informed understanding of potential mitigation efforts required.

### Yearly activities enabling the milestones:

- Reoccurring events focusing on themes relevant for network members, including inspirational talks as well as joint discussions.
- Quarterly newsletter highlighting relevant topics and keeping members updated on what is happening across the network.
- Network growth: Ongoing mapping of testbeds and companies active within digitalisation of the bioeconomy.

### Network benefits – why joining?

Network members get:

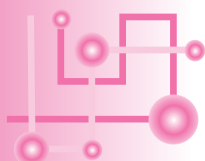
- Access to Nordic testbeds in the intersection of digitalisation and the bioeconomy
- Contact with stakeholders engaged in developing the Nordic and Baltic digital bioeconomy
- Updates on relevant initiatives inside and outside of the Nordic and Baltic region
- Invitation to network activities such as study visits and webinars

Joining the network is free of charge.

### Network members – who can join?

The Nordic Testbed Network is open to anyone willing and able to contribute to the vision of the network. The core of the network is composed by testbeds engaged in digitalising the Nordic bioeconomy. The network is specifically targeted towards:

- Testbeds where academia, businesses, and public organizations can interact
- Testbeds devoted to research, development, and commercialisation of products and services
- Testbeds encompassing forestry, agriculture, fisheries or aquaculture



### Background of the initiative

Digitalisation plays a vital role in the rapid development of the Nordic bioeconomy. Access to cutting edge platforms for development, so-called testbeds, where new digital knowledge and technology can be developed is fundamental. To meet this need, and to support the digital transformation of the Nordic bioeconomy, the Nordic Testbed Network was initiated.

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 is aligned with initiatives such as the North Digital Declaration and the Nordic Bioeconomy Program. It is based on the initiative 'Digitalisation in the Nordic bioeconomy' undertaken by SNS and NKJ during 2018, which highlighted testbeds as an important part of strengthening the Nordic bioeconomy's profitability and competitiveness.

### NTN purpose: Nordic and Baltic added value

The Nordic and Baltic countries are at the forefront of both the digital transformation and in developing the bioeconomy. As a result of the joint Nordic and Baltic interest in a digital bioeconomy, there are multiple testbeds all over the Nordic and Baltic countries aiming to push this development. High-performing testbeds do however require extensive resources, and testbeds are specialised on specific topics. By creating a Nordic and Baltic network of testbeds, we facilitate the exchange of knowledge and technology transfer in the Nordic and Baltic region. In this way, more people have easier access, and possibility to contribute, to the development of testbeds that suits them, no matter where in the Nordic and Baltic region they are located. This is resource optimisation in practice.

Nordic Testbed Network [WEBSITE](#)

