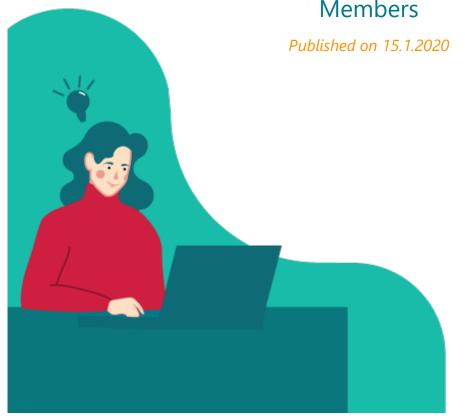


BIOBORD OPERATING MODEL

Guide 1: Innovation Hub Design Guide for New Members









EUROPEAN EUROPEAN REGIONAL DEVELOPMENT



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1. Introduction

Before launching the Biobord platform, each of the connected hubs implemented a planning process involving mapping of the Regional Innovation System as well as three-steps for planning the uptake of the Biobord platform. The whole process is done from the perspective of a selected bioeconomy innovation hub. However, the networks and connections of the hub are strongly featured in all steps.

Starting from the mapping of the RIS, the connections of the hub are listed and reviewed taking into consideration the regional, national and international levels as well as the type of innovation services offered by the connections. The result is a picture of the connections of the innovation hub that reveals the focus areas and profiles of the hub's network as well as potential gaps or weaknesses in the connected bioeconomy innovation ecosystem of the hub. The mapping provides the starting point for planning the uptake of the Biobord platform. For planning the uptake, we offer three tools – reference group analysis, innovation path matrix and user case template presented in chapter 3.



2. Mapping Approach for Regional Innovation System in Bioeconomy



The bioeconomy innovation ecosystem (BIE) diagram depicts the bioeconomy innovation ecosystem build around a bioeconomy innovation hub extending to regional, national and international levels. The BIE diagram is made up of a core and three circles:



- Hub/Core: The core of the diagram represents a specific bioeconomy innovation hub. The
 ecosystem is built around the hub consisting of its networks and partners. The hub is seen
 as a point of entry to the bioeconomy innovation ecosystem for the bioeconomy
 entrepreneurs (SMEs).
- **Innovation Ecosystem/first circle**: The first circle contains the five main pillars of the BIE that form the basis of any bioeconomy innovation ecosystem.
- **Innovation Services/second circle:** The second circle contains the main subcategories related to the five main pillars.
- **Partner Organizations and Structures/third circle:** The third circle presents the most important organizations currently involved in cooperation with the hub and that are providing the innovation services described in the second circle.
- **Potential Partners/fourth circle:** The fourth circle presents the most important organizations that are seen as potential co-operation partners for the innovation hub in providing the innovation services described in the second circle.

The BIE diagram is applied to the context of the Baltic Sea Region bioeconomy ecosystem and its most important stakeholders. It should be noted that a rapid development of the ecosystem means that this BIE diagram will also be continuously updated.

A. Network: Connecting bioeconomy entrepreneurs (SMEs) to other entrepreneurs in the bioeconomy ecosystem as well as to actors in the bioeconomy innovation ecosystem in regional, national and international scopes.

- **A1. Media and reputation services:** Media with strong presence in the community of bioeconomy entrepreneurs (SMEs); Awards, competitions and media for promotion of bioeconomy innovations in different stages
- **A2. Events and meeting platforms:** Physical and online
- A3. Co-working spaces: Physical and online
- **<u>B. Talent:</u>** Enhancing skills and competences in bioeconomy innovations and availability of skilled professionals for bioeconomy entrepreneurs (SMEs).
 - **B1. Vocational training:** in bioeconomy
 - **B2. Higher education:** degree programs in bioeconomy
 - **B3.** Open courses and life-long learning services
 - **B4.** Recruitment and talent attraction services



- **C. Support:** Supporting bioeconomy development in the region with business start-up, invest-in and growth services.
 - C1. Start-up services: incubators, accelerators, venture builders
 - **C2. Government:** local and regional authorities and policy makers creating an enabling environment for bioeconomy testing, piloting and up-scaling (public procurement)
 - **C3. Insights:** Think-tanks on regional bioeconomy development, future foresight and trends for bioeconomy development
 - **C4. Business development organizations:** public agencies, growth services, advisory and development services for SMEs, business premises and invest-in services
 - C5. Advocacy and Cluster organizations: memberships
- **<u>D. Capital:</u>** Providing access to capital and investments for bioeconomy entrepreneurs (SMEs) in regional, national and international scopes.
 - **D1. Private funding:** Business Angels, venture capitalists and investors, Corporate Venture Funds
 - D2. Public Funds: RDI funding and support for investments
 - D3. Alternative Finance: Crowdfunding
- **E. Expertise:** Providing access to innovation services and research & development results, facilities and expertise for bioeconomy entrepreneurs (SMEs) to test and develop their business ideas.
 - **E1. Technology and Knowledge Transfer Offices (TTO & KTO):** offering access to expertise within knowledge institutes and academia
 - **E2. R&D facilities:** Test-beds, laboratories, demonstrations & pilot sites, prototype workshops etc.
 - **E3. Open innovation platforms:** Living labs, open experimentation & development platforms, open source data and tools, idea banks, product development panels etc.
 - **E4. Science and business parks:** An area devoted to scientific research or the development of science-based or technological bio-based industries. Industrial ecosystems and symbiosis with bioeconomy focus.



3. Tools for Planning the Uptake of Biobord

The toolbox for regional hubs planning the uptake of the Biobord involves three steps designed to assist the planning of the uptake of Biobord and implementation of the operating model.

- Reference Group Analysis
- Innovation Path Matrix
- User Cases

In the first step, a reference group analysis is conducted based on the bioeconomy innovation ecosystem mapping. The purpose of the reference group analysis is to gain understanding of the potential of Biobord.eu platform for developing co-operation with the regional, national and international connections of the hub. This step forms a basis for defining the user groups and the potential co-operation partners for offering innovation services at the platform.

In the second step, the current and potential innovation services of the hub are defined in an innovation path matrix. The aim of this tool is to map the resources, assets and services that can be connected to the Biobord.eu platform as well as identifying regional partnerships for building the community on the platform. The innovation path matrix also provides a framework for identification of gaps in the service path and understanding the overall potential and long-term possibilities of the Biobord as a tool for the hub.

Finally, in the third step, potential first user groups and user cases are identified to launch the use of the Biobord. The aim of defining the user cases is to understand the needs of the user groups, to define activities and expected results as well as to form a basis for evaluation of the results of Biobord uptake.

Step 1: Reference Group Analysis

Aim: Understanding the potential of Biobord.eu platform for developing co-

operation with the regional, national and international connections of the hub. Forming a basis for defining user cases and identifying the potential co-operation partners for offering innovation services at the platform.

Reference materials: Mapping the Bioeconomy Innovation Ecosystem. A list of the bioeconomy

innovation ecosystem actors connected to the hub; Biobord Operating

Model (user profiles and service paths).

Implementation method: Group discussion with relevant coordination team of the regional hub.

Tool and instructions: Instructions for compiling the reference group analysis (recommended to

conduct as an Excel sheet).



- 1. Fill 'Bioeconomy Innovation Ecosystem Connection' columns based on the information gathered in 3.1.1 in your region. Categories for 'type of organization' are based on the Bioeconomy Ecosystem mapping categories of **Innovation ecosystem/first circle**: The first circle contains the five main pillars of the BIE that form the basis of any bioeconomy innovation ecosystem AND **Innovation**Services/second circle: The second circle contains the main subcategories related to the five main pillars. Finally, add the 'name of the organisation'.
- 2. When you have the complete list of organisations from 3.1.1 phase, you can organize a meeting with some core group of experts from your hub and/or the regional coordination team to deliberate the 'potential relation' of the organizations to the biobord.eu platform. The potential relation is selected from the following 4 categories:
 - Co-operation in service development
 - Beneficiary of the platform services (users)
 - Competition in service provision
 - No relation

3. In 'motivation to selection and further details' you can give further information about your choice, e.g. what type of cooperation would be feasible, what user profile the organization may represent, what competing service is the organisation offering or how likely you see that the organisation would be interested in using the platform.

Table 1. Example of the Reference Group Analysis

Bioeconomy Innovation Ecosystem Connection			Potential relation (A,	Motivation to selection and further details		
Type of organization		Name of the organisation	B, C and D)			
A. Network	A.1 Media and reputation services					
•••		•••				



Step 2: Innovation Path Matrix

Aim: Mapping the resources, assets and services that can be connected to the

Biobord platform. Identifying regional partnerships for building the

community on the platform as well as gaps in the innovation service paths.

Understanding the overall potential and long-term possibilities of the

Biobord as a tool for the hub.

Reference materials: Reference Group Analysis

Biobord Operating Model (user profiles and service paths)

Implementation method: Group discussion with relevant coordination team of the regional hub.

Tool and instructions: Instructions for compiling the innovation path matrix (recommended to

conduct as an Excel sheet).

1. Identify the innovation services and business development services offered by your innovation hub (alone or in co-operation).

- 2. In a workshop or via co-working of regional coordination team and stakeholder dialogue, identify which existing innovation services and business development services would be connected to the platform as:
 - Services promoted via the platform (connection to the service achieved at the platform)
 - Services offered at the platform (process partly or totally implemented at the platform)
- 3. In a workshop or via co-working of regional coordination team and stakeholder dialogue, also identify possible new services that can be developed in regional or transnational cooperation to be connected to the platform.
- 4. After identification of the services to be connected to the platform, fill the template 'Innovation path' to provide a description of the service. Please provide also an open description of each service (max. 1 page).



Table 2. Example of an Innovation Path Matrix

Service	Service path	Innovation approach	Stage of innovation path	User profile	Geographical scope	Responsible partner	Other partners (also regional)
Project X							
Service X							
Pilot X							

Classification categories

Service paths

- 1. Project lifecycle (product/service development project, research pilot, case study, demonstration, RDI project etc.)
- 2. Network building and management
- 3. Capacity building, information sharing, awareness-raising
- 4. Matchmaking
- 5. Innovation support
 - a. Product development support (laboratories, test-beds, pilot sites, prototypes & modelling, living labs, assessment panels)
 - b. Business development support (incubator services, soft-landing services, market analysis, feedstock analysis, sustainability assessment and project design)

Innovation approach

- 1. Triple helix: innovation process connects actors and resources from academy, research, business and policy
- 2. Quadruple helix: innovation process connects end-users and consumers with triple helix
- 3. Quintuple helix: innovation process connects data on state of the environment and society with triple helix

Stage of innovation path

- 1. Idea generation
- 2. Idea sharing
- 3. Idea assessment
- 4. Innovation support, including funding, talent, networks, expertise and support

User profile

1. Bridge builder



- 2. Developer
- 3. Supporter

Geographical scope

- 1. Regional
- 2. National
- 3. International

Step 3. User Cases for Biobord

Aim: Understanding the needs of the user groups. Definition of the activities and

expected results. Forming a basis for evaluation of the results of Biobord

uptake.

Reference materials: Reference group map; Innovation Path Matrix

Biobord Operating Model (user profiles and service paths)

Implementation method: Regional coordination team co-working and stakeholder dialogue

Tool and instructions: The user case description should be done prior to consultation with the

Biobord technical support team. The description includes:

- a. Open description of the planned use (briefly)
- b. User group: Expected number of users, organisations, connection to hub
- c. Specific aims for testing as indicated by the user group
- d. Geographical scope: regional, national, international
- e. Implementation period
- f. Requested support for the implementation