

BioBoosters – Boosting Circular Transition

# BioBoosters Hackathon Evaluation Plan

To be reviewed in Mid-term phase of the project.

**Interreg**  
Baltic Sea Region



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CIRCULAR ECONOMY

**BioBoosters**

BioBoosters Evaluation Team  
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## Contents

1	INTRODUCTION.....	2
2	RESEARCH QUESTIONS AND STUDY INTERESTS .....	3
3	DESIGN PROCESS & EVALUATION ACTIVITIES.....	5
3.1	Roles and Responsibilities .....	7
3.2	Timetable.....	7
4	DATA COLLECTION, MANAGEMENT & ANALYSIS .....	8
4.1	Data collection.....	8
4.1.1	Participant surveys .....	8
4.1.2	Statistical data of participants and challenges .....	8
4.1.3	Published statements and stories.....	10
4.1.4	Collection of received feedback and lessons learned from organisers.....	10
4.2	Data management.....	11
4.3	Data analysis .....	11
5	OUTCOMES.....	12
5.1	Upgrades to the BioBoosters Hackathon model and network operations.....	12
5.1.1	Transnationally developed and piloted BioBoosters hackathon model.....	12
5.1.2	BioBoosters Network's operating model .....	12
5.2	Validation of the BioBoosters Hackathon model and its impact.....	13
5.2.1	Publication of the viability of the project solution to boost the BSR circular transition .....	13
5.2.2	18 online stories of the impact of the circular solutions .....	13
	Annex 1 Value Proposition Canvases .....	14
	Annex 2 Participant surveys .....	14
	Annex 3 Data Management Plan .....	14
	Annex 4 Timetable .....	14

## 1 INTRODUCTION

BioBoosters project pilots a transnational and demand driven open innovation process (BioBoosters hackathon model) aiming to solve challenges that well established bio businesses face in transitioning to circular bioeconomy. The hackathon model is a tool for the innovation hubs to connect the regional well established bioeconomy enterprises with the best available cross-sectoral and transnational talent, expertise, and solutions. These resources and networks can be found from the involved BioBoosters network members.

The development (of the project solution) is an iterative process, where the model will be adjusted and defined during project's mid-term and end phase according to the collected feedback from hackathon organisers, participants, Associated Organizations (AOs) and Project Steering Group (PSG).

**Continuing evaluation and iterative development of the hackathon model are key values of the project.** Evaluation results, as well as project solution development results, based on the collected feedback, will be presented on a regular basis to the project consortium, Project Steering Group and to Associated Organizations (representatives from main target groups). Presentations are held during the mid-term phase of the project implementation, as well as the end of the project implementation.

Target groups are heavily involved in the evaluation as survey respondents and development update receivers. The overall evaluation results will be combined into a publication in GoA 3.2 reflecting the viability of the hackathon model for the circular transition.

The validated Hackathon model will be integrated to the operations of the BioBoosters network members to become part of their service portfolio that supports the regional bio- and circular economy transition. Additionally, BioBoosters network members are transferring the hackathon model to external innovation hubs.

## 2 RESEARCH QUESTIONS AND STUDY INTERESTS

Evaluation of the **viability of the BioBoosters hackathon model** is the main objective of the evaluation activities. The term ‘viability’ is defined as follows:

- according to Oxford Languages: “ability to work successfully”;
- according to Cambridge Dictionary: “ability to work as intended or to succeed”;
- according to Balance Money: “business viability means that a business is (or has the potential to be) successful”.

The supporting questions for the evaluation of the viability of the BioBoosters hackathon model therefore are:

- Is the BioBoosters hackathon model already working successfully?
- If not, what could/ should be improved to make the BioBoosters hackathon model work as intended or successfully?

It will be done on the basis of the following evaluation criteria:

- **Relevance:** To what extent the conceptualized hackathon model responds to the needs of the stakeholders involved and related policies.
- **Effectiveness:** To what extent the objectives of hackathons have been achieved.
- **Sustainability:** To what extent is the model likely to be utilized in the future (its durability).
- **Impact:** To what extent implementation of the model is expected to generate higher-level effects.

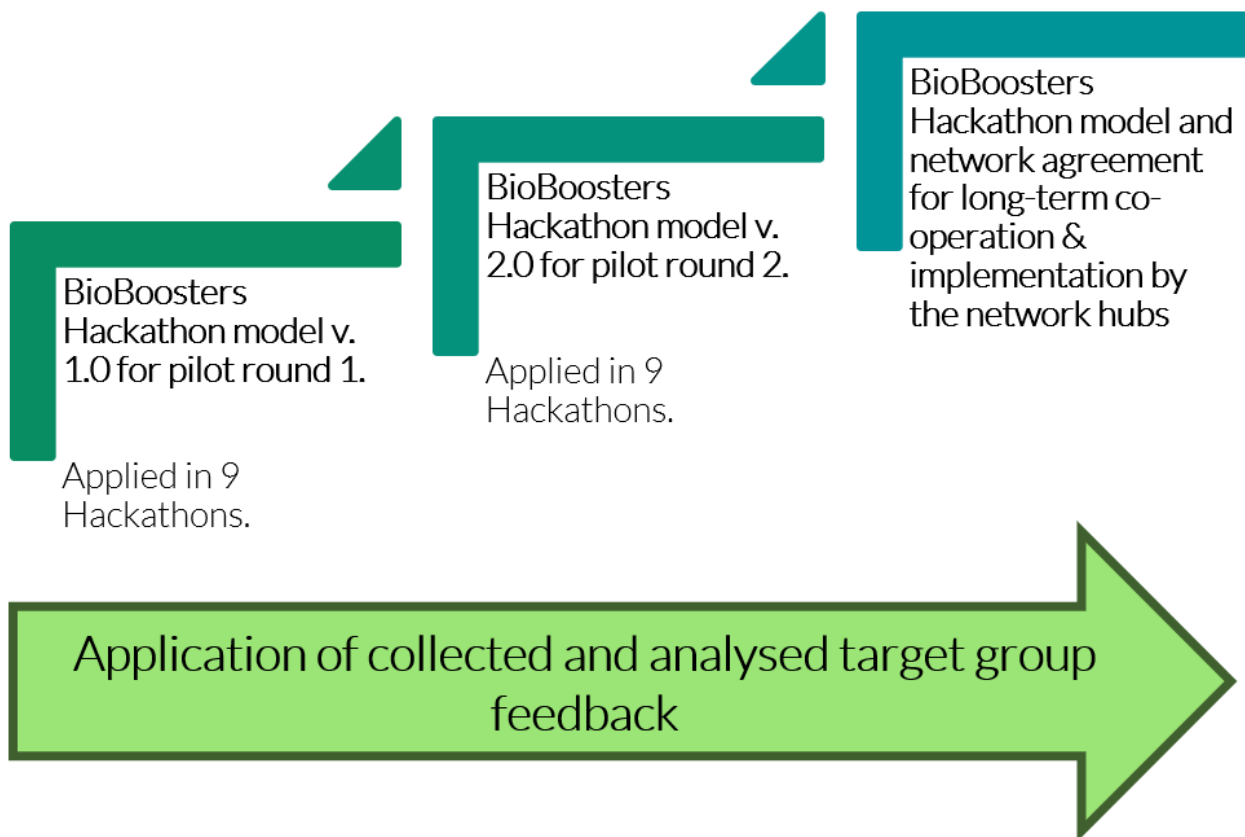
**Table 1. Research interests connected to the evaluation criteria**

Evaluation Criteria	Research Interests
Relevance	<p>To what extent the conceptualized hackathon model responds to the needs of the stakeholders involved and identified problems as defined in the value proposition canvases (Annex 1)?</p> <p>To what extent hackathon helps in delivering the objectives of the EU and BSR strategy documents relating to circular economy transition and sustainable bioeconomy development in the region, such as:</p> <ul style="list-style-type: none"> <li>• making sustainable products the norm in the EU, ensuring less waste and making circularity work for people, regions and cities (EU circular economy action plan);</li> <li>• reinforcing sustainability of agriculture, forestry and fisheries by promoting an integrated approach (EU Strategy for the Baltic Sea Region, Policy area Bioeconomy);</li> <li>• learning from each other, also across the borders speeding up spreading of new sustainable practices and productions in agriculture, forestry, blue bioeconomy (EU Strategy for the Baltic Sea Region, Policy area Bioeconomy)?</li> </ul>

Effectiveness	<p>To what extent the hackathons objectives have been achieved? What are the main benefits of participation in hackathons for the main stakeholders? Which aspects could be improved?</p> <p>Have hackathons been effective in addressing problems and development ambitions of challenge provider, solution providers, mentors, and organisers (relieving pains identified in the Value Proposition Canvases) and creating expected benefits for them (creating gains identified in the Value Proposition Canvases)? Which pains and gains have particularly been affected? Which aspects of the process have been effective in creating gains or alleviating pains of the target groups?</p> <p>Are hackathons a good tool for offering growth opportunities for regional businesses?</p> <p>Are hackathons successful in helping bioeconomy enterprises to overcome challenges related to uptake of circular economy models including:</p> <ul style="list-style-type: none"> <li>• lack of market ready solutions;</li> <li>• lack of access to (cross-disciplinary) talents;</li> <li>• lack of access to (cross-disciplinary) expertise;</li> <li>• lack of access to (cross-disciplinary) networks;</li> <li>• lack of access to innovation services;</li> <li>• Other challenges?</li> </ul>
Sustainability	<p>Does the BioBoosters hackathon model meet the conditions to be used by the BioBoosters network members in the future?</p> <p>Is the BioBoosters hackathon model likely to be scaled up beyond the project activities, e.g. to external innovation hubs?</p> <p>May the hackathon receive the feature of “the universal applicability” taking into account cross-cultural differences of users from various countries?</p>
Impact	<p>Does the hackathon method have the actual potential to impact the <b>transition to circular bioeconomy</b> in the BSR? What is the extent of this impact? How effective is the Hackathon model in establishing the connections for the <b>exchange of the best know-how across BSR</b>?</p> <p>Have hackathons contributed to creating business interest in the circular bioeconomy transition? Are hackathons an effective tool for mainstreaming and speeding up businesses transition to circular economy across BSR?</p> <p>To what extent hackathon model helps in overcoming the businesses’ barriers for innovation and in speeding up innovation processes?</p> <p>To what extent the BioBoosters hackathon model contributes to the <b>improvements in the offers of the regional innovation hubs</b>?</p> <p>To what extent the BioBoosters hackathon model contributes to <b>interregional cooperation</b> in the scope of sustainability and innovation?</p>

### 3 DESIGN PROCESS & EVALUATION ACTIVITIES

The evaluation of the BioBoosters Hackathon model is carried out as an integrated part of the iterative design process where piloting of the model is proceeding in two rounds together with all the target groups of the Hackathon model. As shown in picture 1, the target group feedback is collected, analysed, and applied to upgrade and finalise the BioBoosters Hackathon model and related network agreement on co-operation models. The design process aims to support refining the Hackathon model for long-term use by the innovation hubs of the network and potential external innovation hubs interested in the model.



Picture 1. Iterative Design Process for the BioBoosters Hackathon Model

For the evaluation process to be meaningful, it is important to enable a strong target group involvement to the piloting. Therefore, some target indicators have been set for target group engagement. Reaching the set objectives provides an indication of the success of the piloting which is a framework condition for the evaluation and interpretation (analysis) of the data collected from the participants. Table 2. features the set target indicators for the target group engagement in the piloting.

**Table 2. Target indicators for engagement of target groups to piloting in round 1**

Target group	Engagement type	Communication approach	Target number per Hackathon (KPI)	Target number in total (KPI)
Challenge provider -large enterprise	Service agreement	Online call, info events Direct marketing by organizer	1	9
Participants to the launch webinar	Registered participants to the event	BioBoosters Campaign Communication efforts by organizers and partners	80 registered participants	720 registered participants
Applicants SMEs, start-ups, research teams	Responds to the call by filling an online application	BioBoosters Campaign Active scouting Communication efforts by organizers and partners	10 6 international applicants	90 63 international applicants
Solution provider - SMEs, start-ups, research teams	Competing in the Hackathon (Kick-off to Hackathon day)	Selected by the challenge provider	5 4 SMEs 2 international SMEs	45 36 SMEs 18 international SMEs
Mentors (external = not client or organizers)	Mentoring on Hackathon Day; Approval of the mentoring principles, addition to the mentoring registry and community	Co-organizing partnerships Active scouting of mentors in regional and partner networks	7 4 international mentors	63 36 international mentors

*Note: As indicated in Table 2, the mentor involvement will be organized via co-organizing partnerships with regional innovation system actors, thematically relevant research institutes and sectoral agencies, as well as BioBoosters partners and their connections. On the level of an individual Hackathon, it is expected that each organizer is likely to get on average three mentors from their own organization and five from their client. In addition, they will engage approximately seven mentors from external organizations.*

### 3.1 Roles and Responsibilities

The evaluation of the BioBoosters hackathon model is led jointly by the Project Leader – **JAMK University of Applied Sciences** and Project Partner (PP8) – **PRO CIVIS Foundation** as the evaluation team leader. **The two parties are jointly responsible for:**

1. preparation of the actual surveys for the separate groups (challenge providers, solution providers, mentors and organisers);
2. conducting the participant surveys via the selected surveying tool (contracted if necessary);
3. coordinating the statistical data collection, organisers' personal reflection & experience exchange, and the collection of information on the dialogue with (potential) challenge providers, solution providers, and mentors via BioBoosters Pilot Forum;
4. collecting and analysing the survey results of the first and second piloting iteration for the mid-term / final evaluation and creating development recommendations;
5. validation of the analysis via focus group interviews with organisers;
6. participant survey data management and access control; and
7. coordinating the co-writing for a publication as a form of disseminating the evaluation results

**Project Partners are responsible for:**

1. consulting the content of the participant surveys to:
  - a. Help in clear formulation of questions; and
  - b. confirm that the questions would be understood in each country and each context;
2. ongoing statistical data collection, personal reflection, and information on the dialogue with (potential) challenge providers, solution providers, and mentors via BioBoosters Pilot Forum;
3. responding to the surveys in the capacity of organisers;
4. helping to interpret the survey results;
5. conducting semi-structured in-depth interviews with challenge providers and winning solution provider following each hackathon to formulate and publish the impact stories;
6. participate in the co – writing of the publication.

As for the moment of drafting this Plan, the following persons have been nominated by the Project Partners as responsible for delivering on the evaluation activities specified above:

- Paper Province (PP2): Per Myhren
- Biofuel Region (PP3): Eva Friedman
- Vidzeme Planning Region (PP4): Inguna Kucina
- Estonian University of Life Sciences (PP5): Lili Veesaar
- Witenö (PP6): Gudrun Mernitz
- Pärnu County Development Centre (PP7): Svea Uusen
- Sunrise Valley Science and Technology Park (PP9): Antanas Popiera

### 3.2 Timetable

The evaluation activities are following the timetable presented in Annex 4.

## 4 DATA COLLECTION, MANAGEMENT & ANALYSIS

### 4.1 Data collection

Main data collection for the evaluation of the BioBoosters Hackathon model involves data collection from the participants of the Hackathon process. In the BioBoosters project, the BioBoosters Hackathon model is piloted 18 times, as each of the nine Hackathon organizers will run two pilot Hackathons.

One BioBoosters Hackathon process involves a minimum of one challenge provider company as the client; one innovation hub as an organiser; 3-8 solution provider teams (SMEs, startups, research, and student teams etc.), and 4-10 expert mentors. The participants of the international Hackathon process (challenge provider team, solution provider teams, mentors, and organizers) are all engaged in a Howspace platform for the duration of the open innovation process.

From each Hackathon process, we collect and produce the following data to be applied in the evaluation process:

- Participant surveys (anonymous);
- Statistical data of participants and challenges;
- Published statements and stories from participants; and
- Collection of received feedback and lessons learned from organisers

#### 4.1.1 Participant surveys

Online surveys to participants are conducted in each hackathon (administrated on the Hackathon Days to be responded to within 10 days). Surveys are administrated via Howspace and the questions are targeted to different participant groups separately to record experienced benefits and impacts of the Hackathon model.

Separate surveys are administrated to:

- Challenge Providers
- Solution Providers
- Organisers
- Mentors

The data collected at the Howspace platform will be transferred to Excel to be used as the main dataset of the evaluation process. The survey responses are permanently anonymous.

Detailed content of the participant surveys is presented in Annex 2.

#### 4.1.2 Statistical data of participants and challenges

Statistics and background data are collected on participants of the Hackathon process via the Hackathon invitations, the application process (Webropol) and organisers. Hackathon

invitations (18) including a description of the challenge of a client company published online as agreed with the client in the service agreement. The application process is organised by PP1 Jamk University of Applied Sciences via Webropol and offers the necessary information on the solution provider teams. The statistical data on the mentors is collected via the organisers.

This data is used to help analyse the results of the participants surveys as well as to validate the success of the piloting. The data is collected to a joint Excel managed at the BioBoosters Pilot Forum by PP1 Jamk University of Applied Sciences.

Statistics and background data includes the following information on the participants and the challenge:

- Challenge:
  - Bioeconomy value chain / sector;
  - Circular economy theme;
  - SDGs connected to the challenge;
  - What kind of teams are looked for ; and
  - Evaluation criteria set for the challenge.
- Solution provider (applicants):
  - Number of applicants;
  - Countries of applicants;
  - Geographic scope of teams that applied in your hackathon (number)
    - National
    - Regional
    - International
  - Background of the applicants (SME/Start-up/RDI/Business-research collaboration/student/other);
- Solution providers (participants)
  - Number of teams selected;
  - Countries of selected teams;
  - Geographic scope of teams participating in your hackathon (number)
    - National
    - Regional
    - International
  - Background of the selected teams (SME/Start-up/RDI/Business-research-collaboration/student/other);
  - Area(s) of expertise (e.g. Business sector)
- Mentors
  - Number of mentors;
  - Countries of participating mentors;
  - Geographic scope of mentors participating in your hackathon (number)
    - National
    - Regional
    - International

- Background of mentors (Business/RDI/Policy/NGO & Advocacy)
- Area(s) of expertise (e.g. business models, technology solutions)

#### 4.1.3 Published statements and stories

The evaluation process will also apply as data source the published statements from the participants of the Hackathon process as well as the impact stories published after the Hackathons.

Statements from winning team(s), mentors, and client on the Hackathon process (18) that are published online as videos and quotations via project page.

Impact stories (18) are collected via semi-structured in-depth interviews with challenge providers and winning solution providers. Interviews are conducted 6-18 months after the Hackathon process. Impact stories are published online as articles and reference stories. The impact story is planned to involve questions on the real-life benefits to the participating teams in terms of business, social, and environmental impacts.

#### 4.1.4 Collection of received feedback and lessons learned from organisers

The organisers are asked to collect their lessons learned and feedback they have received from target groups during the Hackathon process. This data is collected via BioBoosters Pilot Forum (Howspace) for organisers.

Information from target groups is planned to be collected in particular during:

- Service agreement negotiations with Challenge provider
- Selection of the solution providers to the Hackathon process with Challenge provider
- Active scouting discussion with potential solution providers
- Discussion with the solution providers when invited to join the Hackathon process
- Negotiations with co-organisers to join the Hackathon process
- Direct contacts with the mentors to confirm their role and participation
- Impressions on/right after the Kick-off Day and Hackathon Day(s)

Feedback from client (challenge provider) is collected on the following questions:

- What barriers has the client had in responding to the challenge earlier?
- Does your client have earlier experience with Hackathons? What have been their experiences been like?
- What motivates them to organize a Hackathon with us?
- What is the impression of the client on the quality of the solutions presented? Does it change in course of the process?

Feedback from (potential) solution providers is collected on the following questions:

- What barriers do the teams name for not wanting to participate or hesitating to participate?
- What motivates the teams to participate in a BioBoosters Hackathon?
- What benefits do the teams experience from participating in the Hackathon process?

Feedback from mentors is collected on the following questions:

- What barriers do the potential mentors name for not wanting to participate or hesitating to participate?
- What motivates the mentors to participate in a BioBoosters Hackathon?
- What benefits do the mentors experience from participating in the Hackathon process?

In addition, the organisers are asked to reflect on their lessons learned in each of the 10 phases of the Hackathon process. This information is used mainly for upgrading the Hackathon organiser's checklist. However, it could also provide interesting insights for further elaboration in the evaluation process.

## 4.2 Data management

Evaluation team has prepared a data management plan to address issues such as:

- Consistency and quality of data
- Ethical and legal considerations
- Documentation and metadata
- Data storage and backups during and after the project
- Licences and open access to data after the project

This plan is available as annex 3 of the evaluation plan and is updated per need.

## 4.3 Data analysis

After each hackathon, survey data will be collected by Jamk University of Applied Sciences via Howspace. Thereafter, the organization leading the evaluation (Foundation for Education and Social Dialogue "PRO CIVIS") is analysing the data in a systematic manner. The evaluation team will gather mainly qualitative data. Pro Civis is analysing data in order to summarize results and to look for patterns will be an important part of the evaluation. The methods used will be content analysis and thematic coding. Mixing different methods will also allow for data triangulation.

Intermediary evaluation findings are elaborated in focus group interviews with the Hackathon organisers to validate the findings for the evaluation report. The focus group interview sessions are organised twice per pilot round (Autumn Hackathons and Spring Hackathon separately). AI sensemaking is used in the planning to identify themes from the Howspace to plan the focus group interviews.

The focus group interviews are carried out as face-to-face meetings where the evaluation team leader is conducting the interviews to a panel of organisers. Other partners are able to listen in and provide commentary notes and pose further questions to the panellists. Howspace platform is utilised to enable hybrid participation and input before and after the interview session.

## 5 OUTCOMES

Establishing the impact of the BioBoosters Hackathons will constitute the basis for transfer of the project solution to external innovation hubs as well as for the continuation of the Hackathon organisation activities within the network.

In practise, the outcomes of the evaluation process are upgrades to the BioBoosters Hackathon model and network operations as well as validation of the BioBoosters Hackathon model and its impact.

### 5.1 Upgrades to the BioBoosters Hackathon model and network operations

After each piloting iteration, an **evaluation report** covering all 9 hackathons will be prepared. The reports will include answers to evaluation questions that will be used for creating development recommendations and for further (the first round) / final (the second round) development of the long-term BioBoosters hackathon model. The final evaluation results will also be used for developing recommendations on how to achieve a sustainable operating model for the partnership.

In terms of project deliverables, the evaluation reports have a direct contribution to 'Output 2.4 Transnationally developed and piloted BioBoosters hackathon model' and 'Deliverable 3.1 BioBoosters Network's operating model'.

#### 5.1.1 Transnationally developed and piloted BioBoosters hackathon model

As outlined in the project data:

*We offer our Hackathon model as a digital handbook that guides the use of the project solution (BioBoosters hackathon model). This handbook has been prepared in the way that it is accessible, durable, and understandable to non-insiders. The digital handbook collects a set of documents prepared during the project implementation. Documents that are relevant when hosting a hackathon, according to the BioBoosters hackathon model. Documents include the conceptualization of the project solution (D1.1), communication guidelines (D1.2), checklist of issues what to consider when integrating the model to a hub (D1.3) and overall experiences from piloting (GoA 2.4). The deliverable will be formulated in tight transnational co-operation between all project partners.*

#### 5.1.2 BioBoosters Network's operating model

As outlined in the project data:

*The BioBoosters Network's operating model is a durability plan that defines how the partnership will co-operate after the project to utilize the project deliverables. It will entail a network agreement to clarify how the hubs co-operate in the Hackathon organization after project lifetime. It will also include a resourcing plan with an outline for costs and financing of personnel resources as well as other relevant resources, such as digital platform licenses and administration. The deliverable is*

*designed in continuous partner and stakeholder dialogue involving the key partners of the Hubs that are representing the connected regional bioeconomy innovation ecosystems (including relevant associated partners).*

## 5.2 Validation of the BioBoosters Hackathon model and its impact

Evaluation results will be also combined and presented in a **publication** of the viability of the project solution to boost the BSR circular transition (D3.2).

The publication will include inter alia:

- the analysis of the viability of the BioBoosters hackathon model from the target group and end-user point of view; and
- the summarized and analysed impact stories featuring the sustainability impacts (economic, social, environmental) of the winning solution idea as real-life benefits.

The publication and its findings will also constitute one of important cornerstones for the preparation of the partnership for potential future cooperation (after the project).

Impact of the circular solutions found through the BioBoosters Hackathon model will be also communicated through the collection of 18 impact stories (D3.3) highlighting the impact of the circular transition, boosting transferability across the BSR and creating business interest in the circular bioeconomy transition.

### 5.2.1 Publication of the viability of the project solution to boost the BSR circular transition

As outlined in the project data:

*The publication of the viability of the project solution to boost the BSR circular transition, collects the project piloting results and overall analyses together to one digital publication. It describes with practical examples how the project solution can be used to boost the circular transition, and what should all be considered. The publication will be widely disseminated via BSR and EU channels.*

### 5.2.2 18 online stories of the impact of the circular solutions

As outlined in the project data:

*Deliverable 3.3 is a collection of online impact stories that visualize the impacts of the found circular solutions through the BioBoosters hackathon model in GoA 2.2 and GoA 2.3 piloting. The impacts are reflected through economic, social, and environmental indicators. The aim of the stories is to highlight the impact of the circular transition, to boost transferability across the BSR and to create business interest in the circular bioeconomy transition. Stories reflect different Baltic Sea regions and different types of businesses. Thus, the stories are helping with hackathon marketing (challenge provider and solution provider engagement). The stories will be embedded on the project website and disseminated widely in various BSR communication channels.*

**Annex 1 Value Proposition Canvases**

**Annex 2 Participant surveys**

**Annex 3 Data Management Plan**

**Annex 4 Timetable**

## Annex 1. Value Proposition Canvases of BioBoosters Hackathon Target Groups



### PAIN RELIEVERS: SOLUTION PROVIDERS

- ✓ Direct dialogue with key staff of the potential client, a large industry leader
- ✓ Networking with other participants and experts; building partnerships
- ✓ Dialogue with a potential first client (first commercial piloting)
- ✓ Ability to assess the potential of the idea and needed next steps

### GAIN CREATORS : SOLUTION PROVIDERS

- ✓ Professional mentoring for free
- ✓ Dialogue with the potential client and direct feedback to guide the innovation process
- ✓ Discovery of services and funding opportunities for idea testing
- ✓ Winners announced with press release and a social media campaign; later impact story shared in Hackathon platform and social media
- ✓ Being promoted in LinkedIn in connection to the Hackathon posts (and with a badge and/or skill endorsement) and at the Hackathon platform
- ✓ Co-creation workshop option to help launch the co-operation with the challenge provider
- ✓ Timely delivered and focused guidance throughout the process with a contact person that responds quickly to arising questions
- ✓ Professional and easy to use online platform housing all needed information throughout the process

### JOBS: SOLUTION PROVIDERS

- ✓ Finding first piloting opportunities and first clients
- ✓ Establishing a RDI project plan to test an idea; testing services, consultation with experts, potential clients etc.
- ✓ Dialogue, comparison, and negotiations with potential RDI partners or commercial co-operation partners
- ✓ Getting attention and validation to our idea or proof-of-concept

### PAINS: SOLUTION PROVIDERS

- ✓ As a small business, we struggle to get into dialogue with large companies
- ✓ We see a lot of potential in our solution but as a small business we hope to find partners to work with us to help pilot the solution and/or establish new value chains or build the needed ecosystem
- ✓ We are not connected in this sector and do not properly understand client needs
- ✓ We have a proof-of-concept but it is difficult to find first commercial piloting opportunities and first clients
- ✓ We are not sure what is the best way forward; it is difficult to compare potential development paths

### GAINS: SOLUTION PROVIDERS

- ✓ Dialogue with a potential client; understanding client needs
- ✓ Knowing whether to invest resources into further development
- ✓ Network building and discovery of services and funding opportunities for idea testing
- ✓ High-profile promotion to company's the knowhow and solution
- ✓ Learning to speak the language of our client and how to sell our idea
- ✓ Planning an innovation process from idea to market



## Annex 1. Value Proposition Canvases of BioBoosters Hackathon Target Groups



### PAIN RELIEVERS: MENTORS

- ✓ Network building with relevant future-oriented innovators and learning companies that are planning their green transition
  - Discussion and interaction with leading companies and innovative SMEs during Kick-off and development phase (Howspace) and the Hackathon day + evening program
- ✓ Learning experience; professional development
- ✓ Mentoring experience; having an impact

### GAIN CREATORS: MENTORS

- ✓ Being promoted in LinkedIn in connection to the Hackathon posts and with a badge and/or skill endorsement
- ✓ Being included in an international mentors registry
- ✓ Acknowledgement from solution provider teams for 'best advise of the day'
- ✓ Interaction and co-learning with the challenge providers and solution providers
- ✓ Professional and easy to use online platform housing all needed information throughout the process
- ✓ Invitation to join co-creation workshop after the Hackathon to get involved in the forming RDI partnerships

### JOBS: MENTORS

- ✓ Establishing dialogue with the business sector
- ✓ Building business networks
- ✓ Studying green transition in the industries; understanding systematic challenges hindering green transition and potential solutions to them
- ✓ Personal branding to position as a specialist

### PAINS: MENTORS

- ✓ Trouble of engaging business sector in a dialogue as a public sector organization, NGO or research and educational institute
- ✓ Lack of business sector connections
- ✓ Trouble of identifying business-driven RDI challenges and barriers to transition
- ✓ Perceived lack of tangible sustainable development impacts from own daily work

### GAINS: MENTORS

- ✓ Using one's expertise for making an impact
- ✓ Getting validation to professional knowhow
- ✓ Growing business networks
- ✓ Getting early leads on potential RDI projects and partnerships and having the opportunity to pitch own services and knowhow to join these co-operation initiatives



## Annex 1. Value Proposition Canvases of BioBoosters Hackathon Target Groups



### PAIN RELIEVERS: CHALLENGE PROVIDER

- ✓ Formulation of the challenge (our need) in a clear and well-targeted communication message
- ✓ Focused innovation process designed to fit our needs (tailored service)
- ✓ Timely delivered and focused guidance throughout the process with a contact person that responds quickly to arising questions
- ✓ Expert support throughout the innovation process; guided turnkey service with minimal work time resourcing
- ✓ Ability to guide marketing and stakeholder involvement
- ✓ A professional team of mentors to help refine the presented ideas and guide on steps needed to commercialize the solution
- ✓ Learning experience on open innovation process; having a new strategy to approach RDI needs in the future

### GAIN CREATORS: CHALLENGE PROVIDERS

- ✓ Professional marketing campaign targeted via multiple networks giving visibility to the sustainability mission of the company and enhancing employer brand; building trust
- ✓ Discovery of services and funding opportunities for idea testing
- ✓ Expert network supporting scouting of solution providers and providing help to validate teams and ideas
- ✓ Co-creation workshop option to help launch the co-operation with the winning team
- ✓ Professional and easy to use online platform housing all needed information throughout the process
- ✓ International scope

### JOBS: CHALLENGE PROVIDERS

- ✓ Market research and mapping of potential solutions not yet on the market
- ✓ Addressing the growing requirements and pressure for green transition from clients, investors, and consumers.
- ✓ Identification of tangible steps to implement climate/sustainability/green transition strategies/ industrial symbiosis
- ✓ Dialogue, comparison, and negotiation with potential RDI partners or commercial co-operation partners

### PAINS: CHALLENGE PROVIDERS

- ✓ Our RDI need is not related to the company core business and expertise
- ✓ We do not have networks or partnerships in the scope of the arising RDI need or new business potential (e.g. potential value chain)
- ✓ We are not sure what is the best way forward; it is difficult to compare potential development paths
- ✓ We feel stuck with this problem and we need fresh perspectives
- ✓ The key staff does not have enough work time or relevant competences to tackle the challenge
- ✓ We lack a focused process for tackling our sustainability agenda

### GAINS: CHALLENGE PROVIDERS

- ✓ Getting relevant experts to support the RDI planning
- ✓ Effective international scouting of solution providers
- ✓ Help to validate teams and their ideas
- ✓ Finding and being able to assess cross-sectoral, out-of-box solutions and specialized partners
- ✓ High-profile promotion to the sustainability mission of the company; employer brand building
- ✓ Finding the active players connected to the field of our sustainability mission



## Annex 1. Value Proposition Canvases of BioBoosters Hackathon Target Groups



### PAIN RELIEVERS: ORGANIZER

- ✓ Proven and complete process for Hackathon organization supported by strong portfolio of references.
- ✓ Strong, international, and high-visibility brand supporting communication activities of the Hackathon and supporting the promotion of the Hackathon service.
- ✓ Network supports solution provider & mentor search via active scouting co-operation.

### GAIN CREATORS: ORGANIZER

- ✓ Business-driven, demand-driven, and mission-oriented open innovation model has relatively high business impact in comparison to many Hackathon concepts.
- ✓ Network is built of strong, complementary, bioeconomy regions that can offer cross-sectoral knowhow and connections.
- ✓ Ability to learn from the innovation hub practices in the network.
- ✓ The network of networks offers high visibility for communication actions.
- ✓ Professional toolbox of digital and other communication tools for running the Hackathon process and the related communication activities.
- ✓ Ability to establish and grow cross-sectoral and international networks that support green transition of regional business sector.
- ✓ Joint visual brand supported with e.g. an impact platform showcasing KPIs

### JOBS: ORGANIZER

- ✓ Support the internationalization and growth of the regional SMEs
- ✓ Support the green transition of the regional business sector
- ✓ Act as a meeting place for the regional innovation system
- ✓ Act as a connector of the regional innovation system to strategically significant networks supporting the implementation of the smart specialization strategy
- ✓ Offer open innovation processes to promote new business opportunities in the region
- ✓ Offer matchmaking services to find solution providers for businesses

### PAINS: ORGANIZER

- ✓ We have organized Hackathons, but there is...
  - growing competition between open innovation services and it is difficult to attract challenge providers.
  - lack of tangible business or green transition impact from the Hackathons as well as low business sector involvement.
  - high efforts in attracting solution providers and/or mentors.
  - lack of standardization of the process; high costs of organization.
  - lack of effective communication channels and partnerships
  - lack funding models to support the Hackathons
- ✓ We lack an effective open innovation service concept to support green transition of our business sector.

### GAINS: ORGANIZER

- ✓ Implement a business-driven open innovation model proven successful and impactful in supporting green transition of companies and attainment of new business opportunities.
- ✓ Get support for attracting teams and mentors in response to your clients' needs via international and cross-sectoral networks.
- ✓ Understanding the real development needs within companies, our customers
- ✓ Help to initiate and join international business-driven RDI co-operations and regional development projects responding to the needs of the business sector.
- ✓ Join a well-established, high-profile Hackathon brand with international visibility. Get international recognition for your organization's knowhow and region's smart specialization areas. Building brand and employer image.



Note: All answers are permanently anonymous

Group	Q	Main Questions (*Mandatory question)	Format & Instructions	Answer options / Scale
Challenge provider	1.	Have you personally participated in a Hackathon before as a challenge provider?*	Poll Select one option.	<ul style="list-style-type: none"> <li>• Yes, more than once.</li> <li>• Yes, once.</li> <li>• No, this is my first time.</li> </ul>
	2.	How would you assess the impact of the BioBoosters Hackathon experience for your company?* <ul style="list-style-type: none"> <li>• Promising solution idea(s) for solving the challenge</li> <li>• Access to cross-sectoral knowhow</li> <li>• International expertise exchange</li> <li>• Knowhow of the mentors (<i>Benefit from the ideas, connections, or expertise of the mentors</i>)</li> <li>• Access to solution ideas that are not yet on the market</li> <li>• Lessons on open innovation process (<i>Learning a new innovation method</i>)</li> <li>• Positive visibility nationally</li> <li>• Positive visibility internationally</li> </ul>	PULSE survey	Evaluated with a scale from 0-3, where <ul style="list-style-type: none"> <li>• 0 is no positive impact experienced</li> <li>• 1 is small positive impact experienced</li> <li>• 2 is moderate positive impact experienced</li> <li>• 3 is high positive impact experienced</li> </ul>
	3.	How likely do you consider the following statements?* <ul style="list-style-type: none"> <li>• My company would work with the organiser on another Hackathon challenge within the next 3 years.</li> <li>• My company will start a co-operation with a new national contact gained from the Hackathon process.</li> <li>• My company will start a co-operation with a new international contact gained from the Hackathon process.</li> <li>• My company will co-operate more with the Hackathon organiser in the future.</li> </ul>	PULSE survey	Evaluated with a scale from 0-3, where <ul style="list-style-type: none"> <li>• 0 is not likely</li> <li>• 1 is small likelihood</li> <li>• 2 is moderate likelihood</li> <li>• 3 is high likelihood</li> </ul>

		<ul style="list-style-type: none"> <li>• My company will co-operate more with the mentor organisations in the future. (<i>With one or more of the mentor organisations</i>)</li> <li>• My company will apply open innovation processes increasingly in the future.</li> </ul>		
	4.	<p>Do you agree with the following statements about the BioBoosters Hackathon?*</p> <ul style="list-style-type: none"> <li>• It is a good tool for a large company to grow international research, development, and innovation networks.</li> <li>• It is a good tool for a large company to grow national research, development, and innovation networks.</li> <li>• It is a good tool for a large company to connect with cross-sectoral expertise.</li> <li>• It is a good tool for a large company to connect with small-scale innovators.</li> <li>• It is a good way to get out-of-box ideas and new perspectives on a challenge.</li> <li>• The hackathon process helps to overcome barriers to circular economy transition.</li> <li>• The hackathon process supports planning the innovation process from idea to application.</li> <li>• It is a good way to promote company's sustainability mission.</li> </ul>	PULSE survey	<p>Evaluated with a scale from 0-3, where</p> <ul style="list-style-type: none"> <li>• 0 is 'I do not agree.'</li> <li>• 1 is 'I partly agree.'</li> <li>• 2 is 'I mostly agree.'</li> <li>• 3 is 'I totally agree.'</li> </ul>
	5.	<p>How likely are you to recommend the BioBoosters Hackathon?</p> <ul style="list-style-type: none"> <li>• How likely are you to recommend BioBoosters Hackathon to a friend or colleague? Thinking in the perspective of a client (challenge provider)</li> </ul>	NPS PULSE	<p>Net Promoter Score</p> <p>Scale of 0-10 where 10 is the highest likelihood.</p>
	6.	<p>Open feedback for organisers</p> <p><i>We highly value any ideas, comments or feedback that can help us make the BioBoosters Hackathon a more valuable experience for our clients.</i></p>	<p>Super chat feature</p> <p>Showing only your comments.</p> <p>Photos/Video enabled.</p>	

		<i>We will strive to respond to the comments here, but your comments will remain anonymous, and you will not be able to see the comments of other respondents.</i>		
<b>Solution Providers</b>	1.	Have you personally participated in a Hackathon before?*	Poll Select one option.	<ul style="list-style-type: none"> <li>• Yes, more than once.</li> <li>• Yes, once.</li> <li>• No, this is my first time.</li> </ul>
	2.	How would you assess the impact of the BioBoosters Hackathon experience for your team?* <ul style="list-style-type: none"> <li>• Gained knowhow from mentoring (<i>Benefit from the ideas, connections, or expertise of the mentors</i>)</li> <li>• Access to cross-sectoral knowhow</li> <li>• International expertise exchange</li> <li>• Opportunity to plan the innovation process from idea to application</li> <li>• Opportunity to assess the market potential of our idea</li> <li>• Gained knowhow on open innovation processes</li> <li>• Positive visibility nationally</li> <li>• Positive visibility internationally</li> </ul>	PULSE survey	Evaluated with a scale from 0-3, where <ul style="list-style-type: none"> <li>• 0 is no positive impact experienced</li> <li>• 1 is small positive impact experienced</li> <li>• 2 is moderate positive impact experienced</li> <li>• 3 is high positive impact experienced</li> </ul>
	3.	How likely do you consider the following statements?* <ul style="list-style-type: none"> <li>• My team would participate in another Hackathon challenge within the next 3 years.</li> <li>• My team will start a co-operation with a new national contact gained from the Hackathon process.</li> <li>• My team will start a co-operation with a new international contact gained from the Hackathon process.</li> <li>• <i>My team will co-operate more with the Hackathon organiser in the future.</i></li> <li>• My team will co-operate more with the mentor organisations in the future. (<i>With one or more of the mentor organisations</i>)</li> <li>• My team will engage in open innovation processes increasingly in the future.</li> </ul>	PULSE survey	Evaluated with a scale from 0-3, where <ul style="list-style-type: none"> <li>• 0 is not likely</li> <li>• 1 is small likelihood</li> <li>• 2 is moderate likelihood</li> <li>• 3 is high likelihood</li> </ul>

	4.	<p>Do you agree with the following statements about the BioBoosters Hackathon?*</p> <ul style="list-style-type: none"> <li>It is a good tool for finding new business opportunities and clients.</li> <li>It is a good tool for entering into a dialogue with large companies.</li> <li>It is a good tool for getting detailed understanding on the needs of a potential client.</li> <li>It is a good tool for validating a business idea or proof-of-concept.</li> <li>It is a good way to get visibility for your team's expertise.</li> <li>The hackathon process supports planning the innovation process from idea to application.</li> <li>It is a good tool to build partnerships for idea testing and commercialisation.</li> </ul>	PULSE survey	<p>Evaluated with a scale from 0-3, where</p> <ul style="list-style-type: none"> <li>0 is 'I do not agree'</li> <li>1 is 'I partly agree.'</li> <li>2 is 'I mostly agree.'</li> <li>3 is 'I totally agree.'</li> </ul>
	5.	<p>How likely are you to recommend the BioBoosters Hackathon?*</p> <ul style="list-style-type: none"> <li>How likely are you to recommend BioBoosters Hackathon to a friend or colleague? Thinking in the perspective of a participating team.</li> </ul>	NPS PULSE	<p>Net Promoter Score</p> <p>Scale of 0-10 where 10 is the highest likelihood.</p>
	6.	<p>Open feedback for organisers</p> <p><i>We highly value any ideas, comments or feedback that can help us make the BioBoosters Hackathon a more valuable experience for participating teams.</i></p> <p><i>We will strive to respond to the comments here, but your comments will remain anonymous and you will not be able to see the comments of other respondents.</i></p>	<p>Super chat feature</p> <p>Showing only your comments.</p> <p>Photos/Video enabled</p>	
Mentors	1.	<p>Have you mentored in a Hackathon or similar innovation process before?*</p>	<p>Poll</p> <p>Select one answer.</p>	<ul style="list-style-type: none"> <li>Yes, more than once.</li> <li>Yes, once.</li> <li>No, this is my first time.</li> </ul>

	2.	<p>How would you assess the impact of the BioBoosters Hackathon that you attended?*</p> <ul style="list-style-type: none"> <li>Finding a promising solution to the presented challenge.</li> <li>New national business co-operation initiated.</li> <li>New international business co-operation initiated.</li> <li>Getting a new solution to the market.</li> <li>Launching research, development, and innovation co-operation.</li> <li>Launching international research, development, and innovation co-operation.</li> </ul>	PULSE survey	<p>Evaluated with a scale from 0-3, where</p> <ul style="list-style-type: none"> <li>0 is no positive impact experienced</li> <li>1 is small positive impact experienced</li> <li>2 is moderate positive impact experienced</li> <li>3 is high positive impact experienced</li> </ul>
	3.	<p>How likely do you consider the following statements?*</p> <p>Considering the BioBoosters Hackathon model applied in 9 specialized bioeconomy regions across the Baltic Sea Region in a long-term co-operation, how likely do you consider the following statements.</p> <ul style="list-style-type: none"> <li>I would participate as a mentor in another BioBoosters Hackathon with this same organiser.</li> <li>I would participate as a mentor in another BioBoosters Hackathon organised in another country in the Baltic Sea Region.</li> <li>BioBoosters Hackathon supports green transition in the Baltic Sea Region.</li> <li>BioBoosters Hackathon supports growth in bioeconomy sectors in the Baltic Sea Region.</li> <li>BioBoosters Hackathon supports exchange and transfer of best-practices across the Baltic Sea Region.</li> <li>BioBoosters Hackathon initiates business-driven research, development, and innovation activities in regional context</li> <li>BioBoosters Hackathon initiates business-driven research, development, and innovation activities in national context</li> <li>BioBoosters Hackathon initiates business-driven research, development, and innovation activities in international context</li> </ul>	PULSE survey	<p>Evaluated with a scale from 0-3, where</p> <ul style="list-style-type: none"> <li>0 is not likely</li> <li>1 is small likelihood</li> <li>2 is moderate likelihood</li> <li>3 is high likelihood</li> </ul>

		<ul style="list-style-type: none"> <li>BioBoosters Hackathon model is transferable to other Hackathon organisers in the Baltic Sea Region.</li> </ul>		
	4.	<p>Do you agree with the following statements about the BioBoosters Hackathon?*</p> <ul style="list-style-type: none"> <li>As a mentor, I got the opportunity to learn on the real-world application of circular economy business models.</li> <li>As a mentor, I got the opportunity to join new co-operation initiatives.</li> <li>As a mentor, I got visibility for my professional expertise.</li> <li>As a mentor, I got validation for my professional expertise.</li> <li>As a mentor, I got to grow relevant business networks.</li> <li>As a mentor, I got to grow relevant research, development, and innovation networks.</li> <li>As a mentor, I got to establish international networks.</li> <li>As a mentor, I got to establish cross-sectoral networks.</li> <li>As a mentor, I was able to make an impact on the innovation journey of the participating teams.</li> <li>As a mentor, I was able to make an impact on solving the challenge.</li> </ul>	<p>PULSE survey</p> <p>Your responses are permanently anonymous.</p>	<p>Evaluated with a scale from 0-3, where</p> <ul style="list-style-type: none"> <li>0 is 'I do not agree'</li> <li>1 is 'I partly agree.'</li> <li>2 is 'I mostly agree.'</li> <li>3 is 'I totally agree.'</li> </ul>
	5.	<p>How likely are you to recommend the BioBoosters Hackathon?*</p> <ul style="list-style-type: none"> <li>How likely are you to recommend BioBoosters Hackathon to a friend or colleague? Thinking in the perspective of a mentor.</li> </ul>	NPS PULSE	<p>Net Promoter Score</p> <p>Scale of 0-10 where 10 is the highest likelihood.</p>
	6.	<p>Open feedback for organisers</p> <p><i>We highly value any ideas, comments or feedback that can help us make the BioBoosters Hackathon a more valuable experience for our mentors.</i></p> <p><i>We will strive to respond to the comments here, but your comments will remain anonymous, and you will not be able to see the comments of other respondents.</i></p>	<p>Super chat feature</p> <p>Showing only your comments.</p> <p>Photo/video enabled.</p>	

<b>Organisers</b>	1.	Have you personally been involved in organisation of a Hackathon or similar innovation process before?*	Poll Select one option.	<ul style="list-style-type: none"> <li>• Yes, more than once.</li> <li>• Yes, once.</li> <li>• No, this is my first time.</li> </ul>
	2.	How would you assess the impact of the BioBoosters Hackathon you organised?* <ul style="list-style-type: none"> <li>• Finding a promising solution to the presented challenge.</li> <li>• New national business co-operation initiated.</li> <li>• New international business co-operation initiated.</li> <li>• Getting a new solution to the market.</li> <li>• Launching research, development, and innovation co-operation.</li> <li>• Launching international research, development, and innovation co-operation.</li> </ul>	PULSE survey	Evaluated with a scale from 0-3, where <ul style="list-style-type: none"> <li>• 0 is no positive impact experienced</li> <li>• 1 is small positive impact experienced</li> <li>• 2 is moderate positive impact experienced</li> <li>• 3 is high positive impact experienced</li> </ul>
	3.	How likely do you consider the following statements?*  Considering the BioBoosters Hackathon model applied in 9 specialized bioeconomy regions across the Baltic Sea Region in a long-term co-operation, how likely do you consider the following statements. <ul style="list-style-type: none"> <li>• BioBoosters Hackathon supports green transition in the Baltic Sea Region.</li> <li>• BioBoosters Hackathon supports growth in bioeconomy sectors in the Baltic Sea Region.</li> <li>• BioBoosters Hackathon supports exchange and transfer of best-practices across the Baltic Sea Region.</li> <li>• BioBoosters Hackathon initiates business-driven research, development, and innovation activities in regional context</li> <li>• BioBoosters Hackathon initiates business-driven research, development, and innovation activities in national context</li> <li>• BioBoosters Hackathon initiates business-driven research, development, and innovation activities in international context</li> </ul>	PULSE survey	Evaluated with a scale from 0-3, where <ul style="list-style-type: none"> <li>• 0 is not likely</li> <li>• 1 is small likelihood</li> <li>• 2 is moderate likelihood</li> <li>• 3 is high likelihood</li> </ul>

		<ul style="list-style-type: none"> <li>BioBoosters Hackathon model is transferable to other Hackathon organisers in the Baltic Sea Region.</li> </ul>		
	4.	<p>OPTIONAL: What barriers could limit the transferability of the BioBoosters Hackathon model to other innovation hubs outside the current network?</p> <p>Kindly provide further information on your view about the transfer potential of the BioBoosters Hackathon model.</p>	<p>Superchat</p> <p>Showing only your comments.</p>	
	5.	<p>Do you agree with the following statements about the BioBoosters Hackathon?*</p> <ul style="list-style-type: none"> <li>BioBoosters network supported the finding of solution providers.</li> <li>BioBoosters network supported the finding of mentors.</li> <li>Howspace added value to the Hackathon process.</li> <li>We were able to apply the ready document templates of the Hackathon process.</li> <li>The organiser's checklist for BioBoosters Hackathon organiser helped us in coordinating the work flow.</li> <li>BioBoosters Hackathon communication plan helped us in planning the communication activities.</li> <li>My organisation got positive visibility for our expertise and know-how.</li> <li>My organisation was able to make an impact on the innovation journey of the participating teams.</li> <li>My organisation was able to make an impact on solving the challenge.</li> <li>My organisation gained new valuable connections.</li> <li>My organisation got the opportunity to join new co-operation initiatives.</li> </ul>	<p>PULSE survey</p> <p>Your responses are permanently anonymous.</p>	<p>Evaluated with a scale from 0-3, where</p> <ul style="list-style-type: none"> <li>0 is 'I do not agree'</li> <li>1 is 'I partly agree.'</li> <li>2 is 'I mostly agree.'</li> <li>3 is 'I totally agree.'</li> </ul>
	6.	<p>How likely are you to recommend the BioBoosters Hackathon?*</p> <p>How likely are you to recommend BioBoosters Hackathon to a friend or colleague? Thinking in the perspective of an organiser.</p>	<p>NPS PULSE</p>	<p>Net Promoter Score</p> <p>Scale of 0-10 where 10 is the highest likelihood.</p>

	7.	<p>How many BioBoosters Hackathons my organisation would organise annually after the project?*</p> <p>Kindly answer considering your expectations related to the organisation of Hackathons implemented with the corresponding model as the BioBoosters Hackathon.</p> <ul style="list-style-type: none"> <li>Looking at the year 2026, how many Hackathons my organisation would organise nationally?</li> <li>Looking at the year 2026, how many Hackathons my organisation would organise internationally?</li> </ul>	PULSE survey	Scale from 0-10
	8.	<p>Open feedback for organisers</p> <p>We highly value any ideas, comments or feedback that can help us make the BioBoosters Hackathon a more valuable experience for the organisers.</p> <p>Your comments will remain anonymous, and you will not be able to see the comments of other respondents.</p>	<p>Super chat feature</p> <p>Showing only your own comments.</p>	

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## Plan Overview

*A Data Management Plan created using DMPTuuli*

**Title:** Evaluation of the BioBoosters Hackathon model

**Creator:** Anna Aalto

**Principal Investigator:** Anna Aalto

**Data Manager:** Anna Aalto, Malgorzata Olesiak, Olli Syrjäläinen

**Project Administrator:** Riikka Kumpulainen

**Contributor:** Eija Iso-Ahola

**Affiliation:** Jamk University of Applied Sciences

**Funder:** European Commission

**Template:** Jamk University of Applied Sciences RDI data management plan template

### Project abstract:

BioBoosters aims to advance the green transition of bioeconomy business by matchmaking competence with needs. By employing a proven business-driven Hackathon process, we can solve challenges that the bioeconomy businesses are facing in transitioning to circular economy business models.

BioBoosters Hackathon is connecting the bioeconomy innovation ecosystems of 9 regions across the Baltic Sea Region. By implementing the open innovation process in inter-regional co-operation, we can facilitate cross-sectoral knowledge transfer as well as connect SMEs, start-ups, and research groups with companies in an international context.

We will run 18 BioBoosters Hackathons together with target groups to validate the innovation process model to be adopted in the key bioeconomy innovation hubs of the participating regions. Furthermore, the model will be transferrable to any innovation hub that is looking to support their regional business networks in green or digital transition.

Our expected impact in numbers:

- 18 Business-driven Hackathons will validate up to 70 solutions to circular transition challenges
- 20 international RDI and business co-operations initiated
- 500 specialist brought together to drive the circular transition of the bioeconomy in the Baltic Sea Region

**ID:** 22450

**Start date:** 01-01-2023

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**Grant number / URL:** <https://interreg-baltic.eu/project/bioboosters/>

## Evaluation of the BioBoosters Hackathon model

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### 1. Overview of the data

**Describe the type of data your research is based on. What kind of data is collected, produced or reused? What file format of the data?**

In the BioBoosters project, the BioBoosters Hackathon model is piloted 18 times. Each of the 9 Hackathon organizers will run 2 pilot Hackathons. Each Hackathon involves a min. of 1 challenge provider company as the client; 3-8 solution provider teams (SMEs, startups, research and student teams etc.), and 4-10 expert mentors. The participants of the international Hackathon process (challenge provider team, solution provider teams, mentors and organizers) are all engaged in a Howspace platform for the duration of the open innovation process.

From each Hackathon process, we collect and produce the following data:

- Hackathon invitations (18): description of the challenge (PDFs + website) as agreed with the client in the service agreement
- Statements from winning team and client on the Hackathon process (published online as videos and quotations)
- Impact stories (18) collected with semi-structured in-depth interviews with challenge providers (CP) and winning solution provider (SP) conducted 6 months-12 months after the Hackathon process. (articles, reference stories published online)
- Participant survey responses (survey administrated via Howspace) targeted to participant groups separately to record experienced benefits and impacts of the Hackathon model (Howspace platform; transferred to Excel; results and conclusions partially published in blogs and final publication of the project).
  - Challenge provider
  - Solution provider
  - Mentor
  - Organizer
- Statistics and data collected on participation via application process (webropol) and organizers (Excel; results and conclusions partially published in blogs and final publication of the project)
  - Challenge provider; business sector, Previous Hackathon experience YES/NO
  - Number of applicants, country of applicants, background of the applicants (SME/Start-up/RDI/Business-research collaboration/student/other)
  - Number of teams selected; countries of selected teams, background of the selected teams (SME/Start-up/RDI/Business-research collaboration/student/other); Previous Hackathon experience YES/NO; Area(s) of expertise (e.g. Business sector)
  - Number of mentors, countries of mentors, background of the mentors (Business/RDI/Policy/NGO & Advocacy), area(s) of expertise, Previous Hackathon experience YES/NO
- Analysis of target group values and impact of the Hackathon model based on focus group interviews with organizers. The focus group interviews are planned based on shared experiences of organizers on the discussions with the target groups at Howspace. AI sensemaking is used to identify themes from the Howspace to plan the focus group interviews; analysis shared for internal use in project team as .docx; results and conclusions partially published in blogs and final publication of the project):
  - Challenge providers (discussions during service agreement negotiations, when selecting teams, and on the Hackathon days):
    - What barriers has the client had in responding to the challenge earlier?
    - Does your client have earlier experience with Hackathons? What have been their experiences been like?
    - What motivates them to organize a Hackathon with us?
    - What is the impression of the client on the quality of the solutions presented? Does it change in course of the process?
  - Solution providers (discussions during the active scouting, invitations to Kick-off and during Hackathon days)
    - What barriers do the teams name for not wanting to participate or hesitating to participate?
    - What motivates the teams to participate in a BioBoosters Hackathon
    - What benefits do the teams experience from participating in the Hackathon process?
  - Mentors (negotiations with co-organizers, contacting potential mentors, during Hackathon days)
    - What barriers do the potential mentors name for not wanting to participate or hesitating to participate?
    - What motivates the mentors to participate in a BioBoosters Hackathon
    - What benefits do the mentors experience from participating in the Hackathon process?

**How will the consistency and quality of data be controlled?**

BioBoosters project evaluation team will ensure the systematic collection and management of the data. While the data is applied and analysed in many processes throughout the project, the original data files will be systematically saved and stored by Jamk University of Applied Sciences and Pro Civis, always ensuring that the original data content is retained in a secure location with limited access.

### 2. Personal data, ethical principles and legislation

**Does the research or project involve the processing of personal data?**

- No

The data used in the research will not include any personal data or sensitive data. In cases, where the data can be directly linked to the participants, such as the Hackathon invitation or the impact story, the participants have approved the publication in service agreement, rules of hackathon, or other direct consent.

When conducting the participant surveys, the data collection is anonymised. This anonymization is comprehensive and irreversible. When collecting feedback from target groups via the organizers, the produced data will consist of the analysis of a focus group discussion.

#### **The types of personal data and the measures required by them**

Data from participant surveys is anonymised data that is not considered personal data as the anonymisation must be comprehensive and irreversible. Where the data is connectable to a person or organization, the right to publish the information has been confirmed separately on the basis of service agreement, rules of participation, mentoring principles or e.g. direct consent.

#### **How will you manage the rights of the data you use, produce and share? Is the data confidential?**

All BioBoosters project partners have a right to use the data produced in the project.

#### **What other legislative or ethical questions and measures are related to the data?**

Not identified.

### **3. Documentation and metadata: documentation of data collection, content and processing**

#### **How will you document your data to ensure its findability, accessibility, interoperability and reusability (FAIR principle) for yourself and others?**

In this data collection, we plan to include the relevant metadata to all the listed data, documents and publications:

- Data name
- Data type
- Storage format
- Location
- Authors (when relevant)
- Licences

The publications of the project will be shared at the BioBoosters project page for easy application for all BioBoosters partners and for open access for external users.

### **4. Storage and backups during the research**

#### **Where will your data be stored during the research and how will it be backed up?**

- Jamk's or the partner organization's Teams
- Jamk's or the partner organization's OneDrive
- M and H drives on Jamk's servers

#### **Who is responsible for controlling who has access to the data, and how is secure access to the data controlled? How will you ensure the secure transfer of the data to your partners?**

BioBoosters evaluation team will control the access to the data. The evaluation of the BioBoosters hackathon model is led jointly by the Project Leader – JAMK University of Applied Sciences and Project Partner (PP8) - PRO CIVIS Foundation as the evaluation team leader. The two parties are jointly responsible for:

- preparation of the actual surveys questionnaires for the separate groups (challenge providers, solution providers, mentors and organisers)
- contracting the surveying tool (if necessary) and then delivering it to each Partner
- coordinating, monitoring and supporting the surveying activities of the Partners
- collecting and analyzing the hackathon survey results of the first and second piloting iteration for the mid-term / final evaluation and creating development recommendations
- preparing a publication as a form of disseminating the evaluation results
- management of the data, systematic storage, and access control

## 5. Storing and opening the data after the research has ended

### Will the research data and its metadata be opened after the research?

- Part of the research data can be opened after the research, and its metadata will be published

### Where will the data be stored or archived after the research?

- Case management Tweb

### How will the data or parts of it be disposed systematically?

The dialogue and participant surveys in Howspace platform will be destroyed by latest at the end of the project ends by deleting the platforms.

## 6. Data management responsibilities and resources

### Who is responsible for data management at different stages? Are separate resources needed?

BioBoosters evaluation team will control the access to the data. The evaluation of the BioBoosters hackathon model is led jointly by the Project Leader – JAMK University of Applied Sciences and Project Partner (PP8) - PRO CIVIS Foundation as the evaluation team leader. The two parties are jointly responsible for:

- preparation of the actual surveys questionnaires for the separate groups (challenge providers, solution providers, mentors and organisers)
- contracting the surveying tool (if necessary) and then delivering it to each Partner
- coordinating, monitoring and supporting the surveying activities of the Partners
- collecting and analyzing the hackathon survey results of the first and second piloting iteration for the mid-term / final evaluation and creating development recommendations
- preparing a publication as a form of disseminating the evaluation results
- management of the data, systematic storage, and access control

## Planned Research Outputs

### Data paper - "Publication of the viability of the project solution to boost the BSR circular transition"

The publication of the viability of the project solution to boost the BSR circular transition, collects the project piloting results and overall analyzes together to one digital publication. It describes with practical examples how the project solution can be used to boost the circular transition, and what should all be considered. The publication will be widely disseminated via BSR and EU channels.

### Collection - "18 online stories of the impact of the circular solutions"

Deliverable 3.3 is a collection of online impact stories that visualize the impacts of the found circular solutions through the BioBoost hackathon model in GoA 2.2 and GoA 2.3 piloting. The impacts are reflected through economic, social, and environmental indicators. The aim of the stories is to highlight the impact of the circular transition, to boost transferability across the BSR and to create business interest in the circular bioeconomy transition. Stories reflect different Baltic Sea regions and different types of businesses. Thus, the stories are helping with hackathon marketing (challenge provider and solution provider engagement). The stories will be embedded on the project website and disseminated widely in various BSR communication channels.

### Service - "BioBoost Hub Network's operating model"

The BioBoost Hub Network's operating model is a durability plan that defines how the partnership will co-operate after the project to utilize the project deliverables. It will entail a network agreement to clarify how the BioBoost hubs co-operate in the Hackathon organization after project lifetime. It will also include a resourcing plan with an outline for costs and financing of personnel resources as well as other relevant resources, such as digital platform licenses and administration. The deliverable is designed in continuous partner and stakeholder dialogue involving the key partners of the BioBoost Hubs that are representing the connected regional bioeconomy innovation ecosystems (including relevant associated partners).

Design of the durability plan is taking advantage of the lessons learned from study visits and benchmarking visits throughout the project as well as the lessons learned of co-operation models and practices during the piloting. A key focus of the 2.4 evaluation activities is also going to be on giving recommendations on how to achieve a sustainable operating model for the partnership. These activities are carried out in continuous dialogue.

#### Planned research output details

Title	Type	Anticipated release date	Initial access level	Intended repository(ies)	Anticipated file size	License	Metadata standard(s)	May contain sensitive data?	May contain PII?
Publication of the viability of the project soluti ...	Data paper	2025-12-31	Open	None specified		Creative Commons Attribution 4.0 International	None specified	No	No
18 online stories of the impact of the circular so ...	Collection	2025-12-31	Open	None specified		Creative Commons Attribution 4.0 International	None specified	No	No
BioBoost Hub Network's operating model	Service	2025-12-31	Open	None specified		Creative Commons Attribution 4.0 International	None specified	No	No

## BioBoosters Hackathon Evaluation Plan

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## BioBoosters Hackathon Evaluation Plan

[illegible]

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