

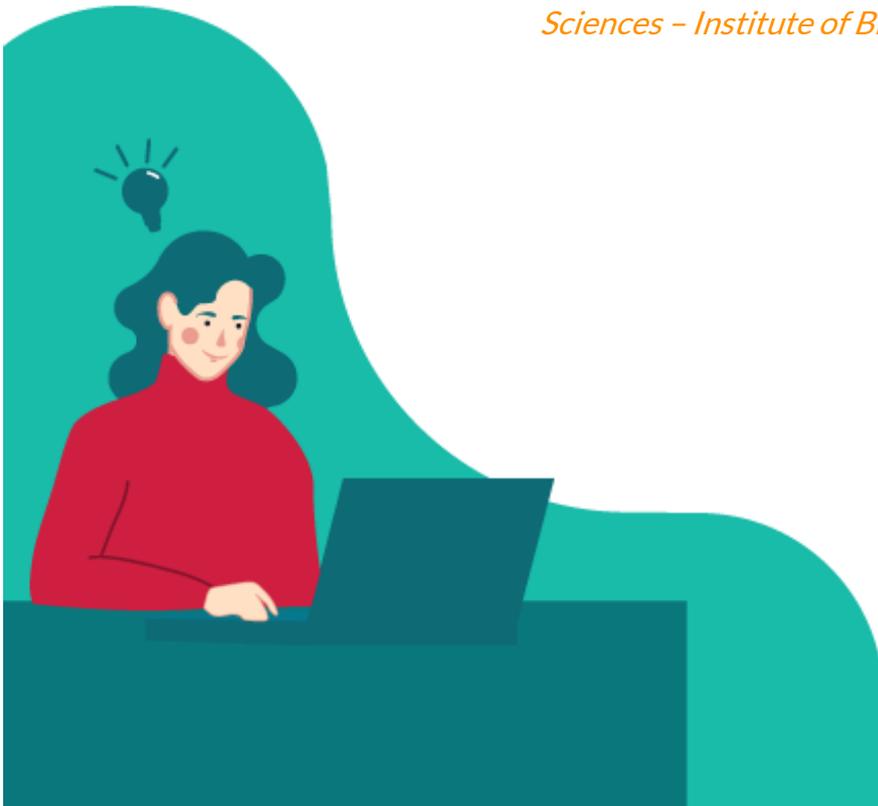


BIOBORD
PLATFORM

RDI2CLUB IN A NUTSHELL

Summary of the project and lessons learnt

*30.09.2020 Riikka Kumpulainen, JAMK University of Applied
Sciences – Institute of Bioeconomy*



 **Interreg**
Baltic Sea Region



EUROPEAN UNION
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1. Introduction

A three-year project of RDI2CluB (Rural RDI milieus in transition towards smart bioeconomy clusters and innovation ecosystems) has become to its end. Project has been funded by European Development fund programme Interreg Baltic Sea Region, and it has been part of the project family of 2014-2020 under the Priority 1 'Capacity for innovation' that is dedicated to actions strengthening the ability of the Baltic Sea Region to create and commercialize innovation. RDI2CluB unites authorities, RDI institutes (research, development, and innovation institutes) and business development bodies from five regions (triple helix consortium) to a joint quest of boosting smart and sustainable bioeconomy development in the rural areas of Baltic Sea Region. Project has been implemented with 12 partners across the BSR:

- JAMK University of Applied Sciences (lead partner), FI
- Regional Council of Central Finland, FI
- SSYP Kehitys Ltd, FI
- Inland Norway university of Applied Sciences, NO
- Inland County Council, NO
- Tretorget Ltd. NO
- Regional Science and Technology Centre, PL
- Świętokrzyskie Marshall Office, PL
- Foundation for Education and Social Dialogue Pro Civis, PL
- Institute for Environmental Solutions, LV
- Vidzeme Planning Region, LV
- SEI Tallinn, EE

Project mission was bringing together bioeconomy developers throughout the rural areas of Baltic Sea Region to a joint table to solve global and local challenges with bioeconomy innovations. Aim was to connect bioeconomy innovation networks to share ideas, share knowledge, raise awareness, find partners and work together to create business opportunities in bioeconomy. To enable international co-operation and co-development we created several tools and methods.

Tools and methods were main outputs and results of the RDI2CluB project, which will be described in the next chapter.

The life after RDI2CluB-project is described in 'Future Activities' -report, which can be found from the Open Biobord Forum. In summary the development of the main outputs of RDI2CluB-project will continue in an extension phase project called ConnectedByBiobord (10/2020 – 06/2021). Also, RDI2CluB partners have established official Biobord Network to safeguard the use and upgrading of Biobord-platform, Operating Model and Joint Action Plan.

All RDI2CluB partners can be found from Biobord-platform after the project and the well-established co-operation and co-development of bioeconomy will continue.

2. Main Outputs and Results

Main outputs and results were created to support the bioeconomy development of the innovation ecosystems/bioeconomy clusters of the partner regions and to support the transnational co-creation process, as well as the cross-cluster learning. The structure of the main outputs follows a roadmap timeline, which means that each output is linked to the next one (Figure 1). Each output is described in the sub-chapters.

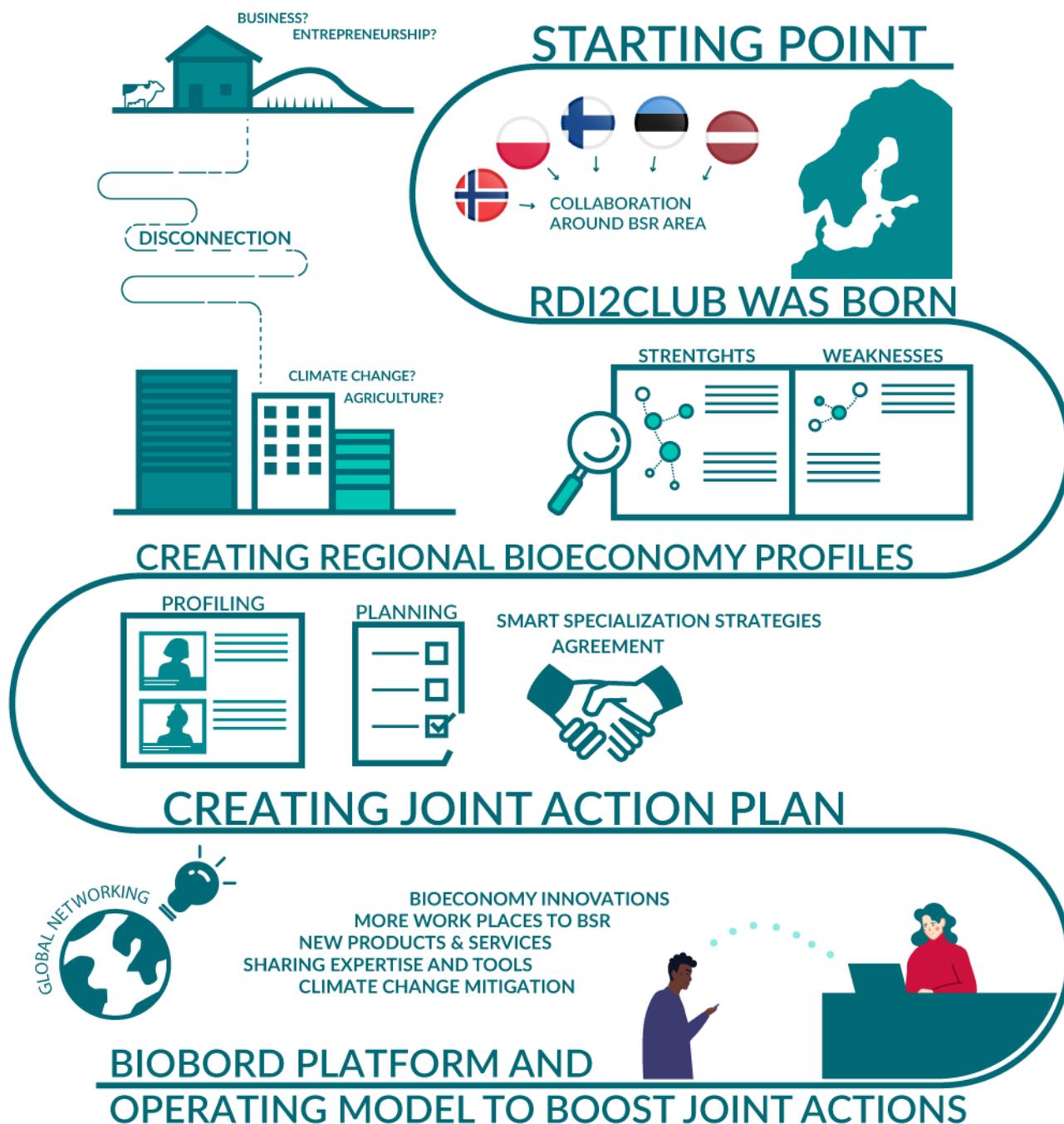


Figure 1: Roadmap of RDI2Club's process with main outputs, Diana Pitkänen 2020.

2.1. Regional Bioeconomy Profiles

RDI2CluB's first main output were Regional Bioeconomy Profiles. Profiles were created to receive a clear picture of the bioeconomy potential within the partner regions and to fully utilize the potential of the regional, national, and EU bioeconomies. Partner regions were: Central Finland, Inland Norway, Świętokrzyskie Poland, Vidzeme Latvia and Estonia. A full description of the creation process can be found from [RDI2CluB's website](#). The process was led by RDI2CluB partner Regional Council of Central Finland, Hannu Koponen, and they summarized the development process to following points (Regional Council of Central Finland 2019):

1. Regional Bioeconomy Profiles are useful for regional developers when they further develop their regional bioeconomy strategies.
2. Bioeconomy is defined differently region per region. This creates challenges on regional and trans-regional dialogue and data comparison.
3. Bioeconomy statistics need to be further developed on regional and national level. Especially on sectors, where fossil- and biobased economies are parallel, e.g. in energy and building sector, the opportunities to identify biobased jobs and added value should be further developed.
4. Sectorial approach is working well when dealing raw materials, land use and other traditional regional parameters. When dealing the level of innovations, research, and development, we need to create more detailed analysis based on the regional level expertise.
5. Bioeconomy profiles act as a start point for regional bioeconomy strategy work. For this purpose, we also need long time datasets, to understand the regional trends in bioeconomy.

At the end of the project, RDI2CluB partners were asked to give feedback of the main output of Regional Bioeconomy Profiles. It was seen that profiles were a good tool for the preparation of the next step Joint Action Plan, but more concrete approach would have been more beneficial. Also, scope could have been more framed in order to go deeper in the analysis. Project partners reviewed the groundwork as essential. It is important to have a mutual understanding of each partner's/partner region's starting level and targets of interest. For this Regional Bioeconomy Profiles were one suitable tool.

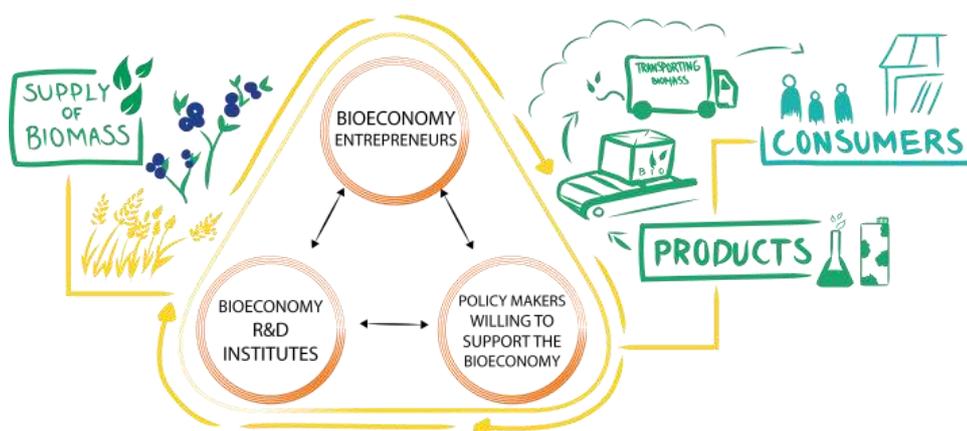


Figure 2: Regional Bioeconomy Profiles, Diana Pitkänen 2019.

2.2. Joint Action Plan

With data and regional dialogue of the Regional Bioeconomy Profiles, RDI2CluB identified and established Joint Actions. [Joint Action Plan](#) (JAP) is a document aiming to support smart, sustainable, and inclusive growth in bioeconomy in rural regions. The JAP includes transnational actions and measures, to be implemented in a cross-regional partnership of at least two partners from two regions. It has been elaborated as roadmap and it is connected to the EU- and Baltic Sea Region strategies, aiming to promote regional development, innovation, and bioeconomy. This connection is described in regional action plans, provided in the attachment to the JAP.

Actions planned in the JAP arise from

- a) Regional action plans
- b) Joint interests and intentions identified by the partners during reciprocal meetings and benchmarking visits
- c) SWOT analysis of the partners' innovation ecosystems
- d) future potential of the bioeconomy in each region, identified after analysis of the regions' resources and described in the bioeconomy profiles

The Joint Action Plan was developed in cooperation with regional triple helix actors - regional authorities, business, and academy. The planning involved also authorities working with design and implementation of national smart specialization strategies in bioeconomy. Furthermore, Joint Action Plan connects the existing EU, EUSBSR, national and regional policies and strategies to a roadmap for the development of bioeconomy innovation ecosystem around the Baltic Sea Region.

Focus areas of the Joint Action Plan are:

- Knowledge building on New Technologies and Business Models.
- Capacity building and transregional co-operation in innovation management and brokerage.
- Raising awareness on the potential of bioeconomy for business and society.



Figure 3: Joint Action Plan, Diana Pitkänen 2019.

The process related to the creation and implementing of the Joint Action Plan was led by RDI2CluB partner PP11 Vidzeme Planning Region. (Vidzeme Planning Region 2020).

At the end of the project RDI2CluB partners were requested to review elements of work package 2 (Regional Bioeconomy Profiles, Joint Action Plan, Regional Action Plan, and dissemination), and the Joint Action Plan was seen to be most successful and useful. Also, partners saw that Regional Action Plans have had a positive impact to their regions. However, it was seen that perhaps JAP could have been also little shorter, so that more focus could have been given to each action. Also, purely transnational aspect of the Joint Action Plan was seen to be successful, rather than having an internal level in the plan. More detailed analysis in the beginning of process would have been also beneficial to get more unified approaches, methods, and processes for innovation development in a transnational context.

Work with the Joint Action Plan will continue in the extension stage project (ConnectedByBiobord), as well as in the newly established Biobord Network. Newest version of the Joint Action Plan can be found from RDI2CluB's website.

25 Cases for Bioeconomy Innovation Around the BSR

One of the main aims of work package two (Promoting S3 for developing the bioeconomy) to unite innovation actors in regional and transnational 3-helix cooperation. To disseminate the inspirational stories that showcases how private and public sector actors in the partner regions have participated to the development of the bioeconomy of BSR, RDI2CluB published (with the help of Nordic Council of Ministers) a publication called '[25 Cases for Bioeconomy Innovation Around the BSR](#)'.



Figure 3: 25 Cases -publication

2.3. Biobord-platform

To implement the Joint Action Plan and to connect our regional innovation ecosystems, RDI2CluB needed an online space to work. For this purpose, Biobord.eu -platform, open virtual innovation hub for bioeconomy developers, was created.

Biobord-platform is:

- Place for project implementing and management
- Place for transnational discussion and developing
- Place for networking and matchmaking
- Place to find innovation support
- Place to share and gain new bioeconomy knowledge

Biobord has been developed in an iterative service design process. Our [Biobord Development -report](#) describes the process behind the creation. Report can be found from Open Biobord forum. Polish RDI2CluB partner Foundation for Education and Social Dialogue Pro Civis was in charge of the development process of the platform with the help of lead partner JAMK University of Applied Sciences that provided technical aspect of the process.

Pro Civis concluded following of the development of the platform:

- Biobord design process was based on four key stages: Discover, Define, Prototype, Pilot. Biobord piloting with the collecting of the feedback directly from the users was the best possible approach for successful development of Biobord Operating Model and Biobord platform.
- Agile approach in piloting and testing with a growing spectrum of users/testers in each iteration, assures complex data collection. It is good to focus on a different aspect of the platform development during each of iterations to help the users in reflecting the right things.
- Well-designed piloting and testing criteria with numerous technics and sources of data collection, provides very useful information, necessary for Biobord Development.
- Transnational cooperation and cross-cluster learning, dissemination of developed solutions, feedback collection and analysis of the results within RDI2CluB team assure steady and permanent progress on the Operating Model and Biobord platform.
- Development of a platform is a long-term process; it takes time to collect needed feedback and analyse the results. Small steps are better in the development process, than few big steps.

- Technical development of the platform should be based on the simple and clear solutions. Providing options and examples of the development targets gives better results in feedback collection of the testers

The development of the Biobord-platform is from now on the hands of Biobord Network, they will decide of all potential upgrades. In the extension stage project, the aim is to develop the platform bit further. Main administrator and technical upkeeped JAMK University of Applied Sciences has agreed to maintain platform until the end of 2025.

Feedback collected from the partners in the end of the project indicated that platform is seen very useful and partners will carryon with the use of it. More SME involvement is requested to the platform to ensure the cross-cluster learning. Transnational aspect of the platform is well constructed since the growing number of users are already from 7 different BSR countries. RD12CluB partners hope that in future more and more bioeconomy experts from BSR will find the platform and the network. Perhaps, more concrete actions, such as projects towards the platform, are needed. Also, having a clearer understanding of the existing and missing competences within the network, could improve the services of the platform and Biobord Network.

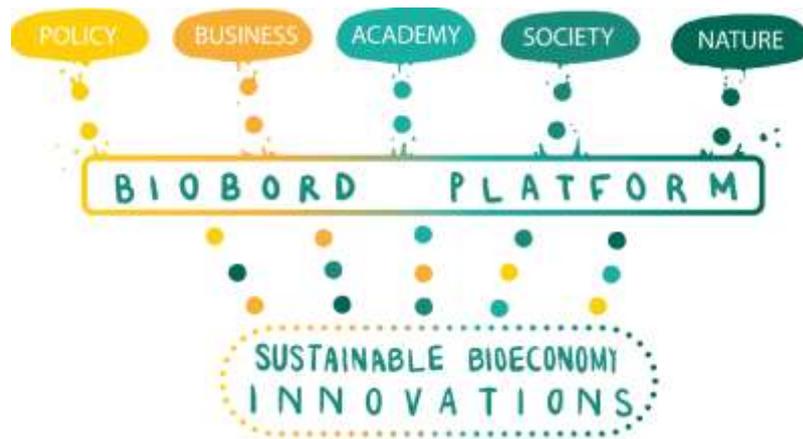


Figure 4: Biobord-platform, Diana Pitkänen 2019.

2.4. Biobord Operating Model

The main thread in work package three (Biobord and Operating Model) is that with transnational cooperation the organizationally thin, rural RD12CluB partner regions create thicker and more complete regional innovation system that supports a renewal of existing path for business development, and a formation of new regional development paths for higher added value bioeconomy products and knowledge-based jobs and growth.

[Biobord Operating Model](#) describes the potential of the RD12CluB network, the functionalities of the platform as well as the user profiles and service paths. Furthermore, the Operating Model provides practical guidance and tools for the uptake of the Biobord, creation of the service paths as well as continuous improvement of the forum community building. The activities related to the creation of the

Operating model and Biobord-platform exploit the Joint Action Plan (JAP) and other results obtained in work package 2 (Regional Bioeconomy Profiles and Joint Action Plan). The creation and development process of Biobord Operating Model was led by Norwegian partner Tretorget Ltd, with the help of lead partner JAMK. Newest version of the Operating Model can always be found from the open forum of Biobord, from the User Support category.

From now on, operating Model will be safeguard and upgraded with the acceptance of official Biobord Network. Extension stage project ConnectedByBiobord will continue to develop the operating Model to version 4.0 by adding a guide that support innovation process and by describing newest members of the Biobord Network.



Figure 5: Innovation Hub Model, Diana Pitkänen 2019.

2.5. Local Pilot Cases

Final main output of RDI2CluB-project was a report of the outputs reached in local pilot cases. Pilots were conducted in RDI2CluB's partner region. The pilot cases were initiated with several purposes in mind:

- To test the applicability of open innovation and co-creation principles and the added value of a digital platform for the development of different types of business ideas and social innovations in the RDI2CluB bioeconomy regions.
- To contribute to the implementation of bioeconomy-related smart specializations of the RDI2CluB project regions.
- To facilitate the development of transnationally oriented bioeconomy innovation ecosystem in the partner regions and the Baltic Sea Region as a whole

Pilot cases were:

1. The Biobord – an online forum where researchers, entrepreneurs, and business developers can meet and collaborate on innovative bioeconomy solutions
2. Waakku – a mobile application for connecting rural entrepreneurs with services and workforce
3. Promoting biomass heating to improve air quality and living standards for residents in spa towns in Poland
4. Using advanced technology and knowledge sharing to promote high-value organic farming in Latvia
5. Development of an international, multidisciplinary and multisectoral network for the sustainable management of wildlife populations in the Northern Hemisphere.

The process of the local pilots was led by Latvian partner Institute for Environmental Solutions.

RDI2CluB's [Local Pilot report](#), that can be found from RDI2CluB website, describes the process more in-depth. Institute for Environmental Solutions collected the lessons learnt from the piloting process:

1. Service design process is applicable for the development of bioeconomy innovation solutions; however, it is not a linear process consisting of a sequence of activities that can be planned in advanced and executed step by step with expected results. Quite the opposite, it is an explorative and iterative process that needs to be able to adapt to changing condition, building on a series of explorative loops.
2. Open innovation and co-creation both at regional and international levels are applicable approaches to look for innovative solutions for bio-economy related challenges that are complex in their nature, require multi-stakeholder and multi-sectoral involvement and are connected with the needs that reach beyond those of a narrow interest group or one business enterprise. Open innovation and co-creation are great ways to access diverse sources of new perspectives and ways of thinking.
3. Collaboration with multiple partners and stakeholders requires time for building mutual trust and open communication, setting of clear goals, agreeing on terms and conditions, and skillful project management. It is also important not to overlook the legal aspects related to the protection of intellectual property rights and profit-sharing issues (if relevant in the context) and to address them in the very beginning of the open innovation-based project. In the case of RDI2CluB project Pilot Cases, the open access principles were observed throughout the process which means that all the results generated are made publicly open.
4. The Biobord was highly appreciated as a tool that reduces e-mail communication, allows keeping documents in one place and gives access to external knowledge sources and new contacts.

However, the potential of Biobord as a tool for bioeconomy innovation development and transfer can be strengthened by recruiting new network members (clusters, regions, municipalities, SMEs, research institutions, young entrepreneurs), increasing the number of available experts and activation of current Biobord users by encouraging more active knowledge exchange, initiating of new cooperation proposals, and joint learning processes.

5. We believe that the interactive impact report is a new way how to communicate with and reach out effectively to various target groups to send a clear and understandable message about the effects of projects, activities, and work in general, thus complementing and sometimes substituting the effort invested to prepare lengthy technical reports that are more appealing to different groups of experts mainly. (Institute for Environmental Solutions 2020).

RDI2CluB partners estimated in the end of the project that most pilots had good results and results are useful in future. Usage of new technologies, development aspect of bioeconomy, innovatively and dissemination, all received positive feedback. One proposal was that more of a research focus could have been taken and pilots could have been linked more strongly to ongoing projects. All and all pilots were seen successful.

Impact Report

For the dissemination of the pilot cases, their potential and the gained results, RDI2CluB prepared an interactive [impact report](#). Impact report is an effective and tool for communicating, which blends:

- Storytelling to translate complex concepts into understandable language
- Visuality to boost engagement and recall of important information
- Open data to complement and enrich the existing sustainability data
- Interactivity to help users to understand the impact of actions carried out



Figure 6: Impact Report, AskKauko 2020

3. CONCLUSIONS

Partners agreed that project was successful even though subject was not easily comprehensible nor easy to implement. Transnational co-operation and consisted network were the most valuable creation of RDI2CluB. Biobord-platform will also stay in the use of partners and development work will continue. All outputs will have a place in future, either in educational purposes, coworking purposes, development purposes or as lessons learnt.

When asked, how RDI2CluB partners have been benefitted from the project, five most popular answers were:

- Increased knowledge of bioeconomy, EU bioeconomy regions,
- Larger network and increased transnational co-operation
- Improved knowledge of bioeconomy potentials
- Stronger regional innovation ecosystem
- New opportunities in the field of bioeconomy: projects, business etc.

With these results and lessons learnt it is easy to continue the bioeconomy development in the ConnectedByBiobord-project!

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