BIOBORD
PLATFORM

SUMMARY REPORT OF THE DEVELOPMENT PROCESS OF BIOBORD AND OPERATING MODEL

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1. Introduction

Biobord is an open virtual innovation hub for bioeconomy developers and it offers a wide network of bioeconomy developers around the Baltic Sea Area with a possibility of matchmaking. Biobord is a space for a community of individuals to pursuit innovative activity and entrepreneurship in the bioeconomy. Biobord is developed in a partnership of five regions across the Baltic Sea Region, Central Finland, Inland (Norway), Świętokrzyskie Voivodeship (Poland), Vidzeme (Latvia) and Estonia. The development and piloting of Biobord are supported by the " Rural RDI Milieus in transition towards smart bioeconomy clusters and innovation ecosystems "- project (RDI2CluB), funded by EU development fund Interreg Baltic Sea Region (2017 - 2020).

At the same time as a platform, Biobord Operating Model was developed. Biobord Operating Model provides an overview of the network connected by the Biobord-platform. Biobord Network forms an international bioeconomy innovation ecosystem that can support the developers in commercialization of new bioeconomy products or services as well as improving the competitiveness, viability, and sustainability of bioeconomy business. The Biobord Operating Model also gives an overview of the functionalities and service paths of the digital hub - the Biobord-platform. Moreover, the operating model contains a collection of practical manuals and guides for Biobord Network members and users of the Biobord-platform

2. Biobord development process

Biobord development process was implemented in the few key aspects with special attention to acceptance of the final users.

First, RDI2CluB team elaborated Biobord technical concepts which were based on the analysis of the potential end user's needs. At the same time, project partners conducted a survey on existing bioeconomy platforms to study their functionality, operating rules as well as system of communication among the users. The survey was a great source of knowledge about technical concept and data collected of other platforms. Feedback from the survey was used by PP1 JAMK IT team as a base for technical development of the platform and content of the Biobord Operating Model.

To ensure proper Biobord development, agile piloting and testing methodology was designed. It was created to give the broad scope of data, opinions and proposals for improvement collected among project partners, its staff and Biobord final users (in the next stage).

Below, piloting and testing process is presented, as well as applied methodology, piloting criteria and collected data with additional information from the testers. Piloting and testing process are an important part of Biobord development process, it contributes to upgrades of the Operating Model as well as functionalities and technical improvements of the Biobord-platform. Piloting and testing results were also useful during elaborating and lunching a new phase of communication, promotion, and dissemination of Biobord.

2.1 Biobord Piloting

Biobord platform was developed with an iterative, user centered, service design process. RDI2CluB-project conducted two piloting phases:

1. September 2019 - December 2019: technical update of the Biobord-platform and feedback for the second version of Operating Model.

2. January 2020 - April 2020: improving user experience and content of Biobord-platform and feedback for the third version of Operating Model.

Biobord piloting - iterative improvements to the Operating Model and platform functionalities, aim testing and developing the services based on the users' feedback.

Piloting has few basic characteristics: iterate and refine processes, experiment, learn and apply lesson. Piloting consists of a "controlled" space where its performance can be measured. Piloting also allows to select a group of intended users to interact with the technical environment and find potential problems (testing results) in the real-world situation. To measure the piloting results, a series of variables (or indicators) will be pre-determined and these will enable essential criteria to be tested and measured.

Testing methods:

Functional (or features) testing process includes testing the application by providing a set of inputs and determining or verifying the result/output by comparing to the expected results. A functional test concludes that the software meets the specification. However, it does not verify if it works for the user or whether the user wants to use it, or if he/she will be satisfied when using it. Functional testing is more effective when the test conditions are created directly by the user according to his/her requirements.

Exploratory testing (UAT - User Acceptance Testing) and effectiveness of services - is a testing method where individual functionalities of the system can be tested without mutually predefined order. UAT is the process of verifying that the created solution/software works for the user and according to the user expectations. Running acceptance testing also ensures the IT Team that no requirement change has happened and that everything is as it should be to satisfy the customer/partner.

In the process of Biobord development three iterations of UAT have been conducted to identify and verify end users' needs before final acceptance.

2.1.1. First stage of piloting (September-December 2019)

During the first piloting phase, Biobord was tested with different user groups and service cases, including project lifecycle, network management, innovation calls and matchmaking, capacity building as well as connecting developers with product and business development services. With these regional and

international pilot cases, the platform and its operational model was developed based on the feedback and experiences of users.

In the first stage of piloting the following activities were carried out:

- Biobord Feedback Survey 1-14.11.2019 (https://forum.biobord.eu/t/biobord-online-survey-report/660) to develop the platform with the feedback and experience of the different user groups (technical usability of the platform)The results of the poll are attached to this report (chapter 5.1)

- Polls on survey results 25-28.11.2019 (https://forum.biobord.eu/t/feedback-collection-from-biobord-users-by-november-14-2019/607/)to choose tasks or proposals that needed urgent attention and based on the results from the survey. The results of the poll are attached to this report (chapter 5.2)

- Focus Group discussions (https://forum.biobord.eu/t/focus-group-discussion-piloting-criteria/639) to gain feedback on the Biobord user satisfaction on technical aspects and service paths. Focus Group discussions included:
    - Management Support Team → project life cycle service path (26.11.2019)
    - Work package 2: Joint Action Plan facilitators → network management service path (25.11.2019)
    - WP3: Open bar facilitators → matchmaking service path (28.11.2019)
    - WP4: Local pilot group → how Biobord assists bioeconomy pilot studies or projects to gain transnational learning and networking opportunities (25.11.2019)

The results of the focus group discussions are attached to this report in chapter 5.3.

Piloting criteria

The first stage of piloting was based on the piloting criteria, helpful in detailed evaluation of Biobord as an IT Tool and assist in providing relevant comments and development proposals.

The list of criteria included:

Indicator Groups	Piloting criteria description
Technical criteria, usability and functionality	
	Visual attractiveness of the Biobord
	Quality of navigation and intuitively
	Registration and membership requirements
	View and modification of own profile
	Sharing open documents, video, and similar information allowed
	Scalability for various type of hardware
	Search in knowledge and networks bases
	Clear and communicative icons
	Notification about new documents, meetings, or events
	Relevant info about other users

	Easy to interact and co-work with other persons
	Quality of language and attractive non-jargon terminology
	Potential for planning and promoting meetings and events
User Acceptance Testing; exploratory and operational criteria	
	Clear business and management model
	Level and quality of facilitation
	Clear and supportive guidelines
	Professional co-working principles
	Quality of IPR protection / security level
	Biobord gravity and willingness to use Biobord in the future
	Improvements and modifications to increase attractiveness
Effectiveness of services for bioeconomy related activities	
1. Project Lifecycle	
	Number of projects coordinated
	Type and scale of coordinated projects (research, pilots, case studies, demo)
	Biobord use in project planning, management, and scaling
2. Network Building	
	Number of groups connected
	Number of networks / groups managed with Biobord support
	Number of new connections found, and dialogues established by Biobord
3. Capacity Building	
	Insight gained by Biobord from other partners or from partners networks (education, consultation, or best practice sharing)
	Peer learning group created
	Learning platform established (regional, transnational)
4. Matchmaking	
	New bioeconomy developers connected to Biobord
	New opportunities, expertise and partners found
	Number of online network events organized
5. Innovation Support	
	Number of supports in developing new ideas provided
	Number and types of innovation services provided
	New commercial products or services created

Upgrades in Operating Model and Biobord-platform

In November 2019, feedback was collected from Biobord users and focus group discussions were carried out with RDI2CluB partners to improve the user experience and services of Biobord. Feedback was applied directly to the technical development and upgrading of the Biobord Operating Model.

The improvements entailed several small technical adjustments, visual outlook update as well as integration of totally new features:

- Document Management system (DMS) for registered users, under the 'Resources' headline. It is for sharing, storing, and managing the resources of projects, teams, and networks.
- Upgraded matchmaking and networking services on Biobord forum. Service experience was developed based on the feedback from pilot users.
- Biobord Operating Model was updated based on these new features and services.
- New login feature: ability to register through Google-account or LinkedIn-account.

Updates of the Biobord-platform and Operating Model were widely disseminated on Biobord news-section, as well as RDI2CluB's social media channels (Facebook and twitter). Information of the upgrade was also shared with in the bioeconomy-community via EU Bio Net -article written by the project manager Anna Aalto.

2.1.2. Second stage of piloting (January - April 2020)

The second round of piloting was conducted on January - April 2020 and it gave more precise information about the content, usefulness, effectiveness, and future of the platform. One indicator is effectiveness of services for bioeconomy related activities. User experiences indicated the concrete demand of different offered discussion groups, so development of the platform is user driven. During the second round of piloting, the following activities were carried out:

- Biobord feedback survey on the experience of all registered user (30.03-14.04.2020). The results of the poll are attached to this report (chapter 5.4)

- Facilitators self-evaluation and conclusion on regional forums (https://forum.biobord.eu/t/facilitators-self-assessment/1322) 27.04-01.05.2020. The results of the self-evaluation are attached to this report (chapter 5.5)

- Transnational workshop discussion (https://forum.biobord.eu/t/online-workshops-on-local-pilots-jap-biobord-april-23/1296/2?u=riikkakumpulainen) 23.04.2020. The results of the workshop discussion are attached to this report (chapter 5.6).

- Focus group discussion: Advisory Board and multiplier group 29.04.2020 (https://forum.biobord.eu/t/focus-group-discussion-advisory-board-multiplier-group/1152/7). The results of the focus group discussion are attached to this report (chapter 5.7).

- Biobord Developers Group meeting: decision of poll questions of potential upgrades 05.05.2020

- Polls of potential upgrades for RDI2CluB partners 13.05.2020 – 22.05.2020

Upgrades in Operating Model and Biobord Platform

The second piloting round focused more on the user experience and content of Biobord. The intention of the second iteration was to **prepare Biobord-platform for the life after RDI2CluB-project.** The second iteration was conducted with the Biobord Developer's Group and with the help of PP1 JAMK's technical support and service designer.

Upgrades included:

- New, more describing, and simpler front page at biobor.eu

- New about-page that contains information about RDI2CluB, the project behind the platform

- Improved network map that shows Biobord Network's organizations

- Simplified Biobord Forum, with just three main categories (User Support, Open Biobord and On Stage)

- Renewed tag-system (specific tags with visual icons and color coding)

- Better descriptions of the forum's project group and regional groups

- New feedback and idea collection models.

These upgrades made Biobord-platform easier to understand for external users and made information seeking simpler with the new tag-system. The aim of the updates is to attract more external users to Biobord.

The platform upgrades of the second iteration were also widely communicated in RDI2CluB's social media channels, as well as on Biobord. On Biobord PP1 created a separate news-article of the updates, as well as informative Biobord-topic which clearly indicated all upgrades made. Information was also disseminated in EUSBSR Highlights-blog written by Hannariina Honkanen from JAMK and disseminated in EU Bio Net via article written by the project manager Riikka Kumpulainen.

3. Summary

Biobord as a communication and cooperation platform for the bioeconomy sector was **designed using the 4-step development procedure**:

1. **Discover**
2. **Define**
3. **Prototype**
4. **Pilot**

Through discussions and consultations with the RDI2Club project partners and the partners employees not directly involved in the project, as well as by searching and critical evaluation among existing ICT solutions, we managed to discover the communication and cooperation gaps to be coved by our project. **Our key aim was to meet the needs of a broad spectrum of the potential final users.**

Collected results were the basis for defining Biobord Operating Model and the main functionalities of the Biobord platform. Detailed description of the operating model was a base for IT Team for designing a prototype of the platform which was piloted and tested in 3 iterations.

Before the Biobord piloting had started, 3 groups of piloting and testing criteria were elaborated:

1. **Technical aspects, including usability and functionality**
2. **User Acceptance Testing, mainly exploratory and operational criteria**
3. **Effectiveness of services for bioeconomy related activities, projects lifecycle, network building, capacity building, matchmaking, and innovation support.**

Three stages of Biobord piloting brought a broad spectrum of data, comments, modification or new solutions and proposals which were collected: in the direct communication between users/testers and IT Team, questionnaires' discussion forums and seminars moderated by piloting team. Additional data, comments and proposals for new solutions were also gathered during Advisory Board and Dissemination Team meetings.

When running the next piloting and testing iteration, a group of testers were extended to assure a fresh overview of existing solutions and to confront it with RDI2Club team and previous groups of testers. We were open to new proposals but at the same time it was important to assure development of Biobord Operating Model and Biobord platform in quite stable direction.

Picture 1: 4-step Development Process of Biobord-paltform.

4. Conclusions

1. 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.

2. 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.

3. Well-designed piloting and testing criteria with numerous technics and sources of data collection, provides very useful information, necessary for Biobord Development.

4. 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.

5. Development of a platform is a long-term process; it takes time to collect needed feedback and analyze the results. Small steps are better in the development process, than few big steps.

6. 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.

5. Attachments

5.1 Biobord Survey Report

Introduction

PP9 with support of PP1 and PP10 conducted a survey on the Biobord usage on November 1- 14, 2019. The survey is used as a tool for testing Biobord with different user groups. The purpose of the

survey is to develop the platform with the feedback and experience of the users. By the end of the observation period the number of registered users was 140. At the piloting stage, the users have been attracted to platform mainly via involvement in the user cases. Wider marketing actions have not yet started as our community managers from different regional hubs are testing to find the right approaches for forum co-working.

The survey was directed to all registered users and the answers should reflect the views of the Biobord user groups. Feedback is applied directly to the technical usability of the platform and upgrading of the Biobord Operating Model.

Survey results (pilot 1):

Total number of respondents: 33

The analysis of the questions:

Question 1. What is your professional background?

Number of respondents: 33

- Business
- Academy, research, education, policy, public administration
- Start up, student, inventor
- Media
- NGO
- Other, please specify

The results of question 1:

	Number	Percent
Business	6	18,18%

Academy, research, education	14	42,43%
Policy, public administration	12	36,36%
Start-up, student, inventor	1	3,03%
Media	0	0%
NGO	0	0%
Other, please specify	0	0%

Conclusions and comments: The most common professions among the active users are academy, research, education (42,43%), policy, public administration (36,36%), and only 18,18% of respondents come from business. Other groups of users are not active enough to provide their comments or opinion. Seems like we need more effort to not only attract new persons from business, media, and young users (students) to register on Biobord but find a way to attract them with various activities assisting them in professional life. It will be good to search among RDI2CluB members ideas for most useful activities for each group of users, to be presented to new Biobord user as a value for money = time spent with Biobord and its society. On the other hand, result is quite expected as the core users and early adopters of the platform are RDI2CluB members – and they represent these 3 groups. The piloting has not yet involved any user cases directly targeting media or NGOs.

Question 2. How long have you been using Biobord?

The number of respondents: 33

- Less than one week
- Less than one month
- Several months

The results of Question 2:

	Number	**Percent**
Less than one week	0	0%
Less than one month	11	33,33%
Several months	22	66,67%

Conclusions and comments: 66,67 % of respondents have been using Biobord for several months and no one for less than one week. It is good to notice new users' comments and Biobord development proposals and specially comments and proposals from the student's start-ups group.

It is important to notice that new users have less problems with mobile use and navigation, only small percentage expected better instructions and support. New users were very satisfied with scope of received information but so far (for few weeks) not manage to gain expected level of

contacts, knowledge, and new ideas. As few respondents clearly indicated, it seems that it was a matter of time spent on Biobord to get satisfactory level.

Question 3. Did you use Biobord on a mobile device?

Number of respondents: 33

- Yes, frequently.
- Yes, I have tried on a mobile device.
- No, not at all.

The results of Question 3:

	Number	Percent
YES, FREQUENTLY	1	3,03%
YES, I HAVE TRIED BIOBORD ON A MOBILE DEVICE	9	27,27%
NO, NOT AT ALL	23	69,7%

Conclusions and comments: The survey results show that most of the respondents (69,7 %) do not use Biobord on a mobile device, only 3% of respondents use it on a mobile device frequently. For most of the Biobord users, it is an IT tool operated from computer (laptop or stationery). We may assume that it means that they open Biobord in office during work time. It is a quite encouraging and broad group of active users of Biobord on mobile devices. Relying on the number of such users we may assume that Biobord can be used on mobile, what usually happened outside of office / work time – private time, travel, out of office on meetings, seminar, conferences etc. It is worth to think what kind of IT tool should Biobord be, a professional tool used mainly in work and with calm and not interruptive circumstances or a must have tool with full time (24h) access.

Question 4. Did you experience any problems when using Biobord with a mobile device?

Number of respondents: 10

- Yes
- No

The results of question 4:

	Number	Percent
YES	2	20%
NO	8	80%

Conclusions and comments: Most respondents (80%) did not experience any problems when using Biobord on a mobile device, although just 10 registered users answered this question. The response rate is low, because the question is targeted only to users that have reported the use of Biobord on mobile devices. From the comparison between new and old users, it is also apparent that the new users have experienced less problems with a mobile device indicating that the user experience has improved during technical development.
Despite a low number of responses, it is good to know such a high percentage of positive opinion. Biobord can be easily and broadly used in any place. There is technical potential for Biobord (services, discussed topics, pressures subjects raised, importance for professional life or business development, etc.) to be used very often or maybe even at any free time.

Question 5. Please describe your challenges when using Biobord on a mobile device.

Number of respondents: 2

Responses
As I remember it was during testing phase and the platform was not responsive and adjustable for smaller screens, i.e. iPhone and iPad.
When I was using the platform several months ago it was not responsive to smaller display on mobile phone.

Conclusions and comments: Users faced problems on the early stage of Biobord development with display a smaller screen. Not any other problems with using Biobord on mobile devices have been register.

Question 6. Do you think Biobord platform is easy to navigate?

Number of respondents: 33

- Yes, I can easily find what I am looking for
- Navigation is mostly easy
- Navigation is easy in some parts, while difficult in others
- No, it is difficult to find what I am looking

The results of question 6.

	Number	Percent
YES, I CAN EASILY FIND WHAT I AM LOOKING FOR	3	9,09%
NAVIGATION IS MOSTLY EASY	17	51,52%
NAVIGATION IS EASY IN SOME PARTS, WHILE DIFFICULT IN OTHERS	9	27,27%
NO, IT IS DIFFICULT TO FIND WHAT I AM LOOKING FOR	4	12,12%

Conclusions and comments: Most of respondents (51,52 %) claim that platform navigation is mostly easy, and 9,09% that they can find easily what they are looking for. Percentage of users with no problems with navigation is only little above 9%, but it means that Biobord has capacity and tools to assure very easy navigation. We need to find out what we should do to help other users fully understand Biobord navigation technology and logic.

Question 7. Please describe your challenges in navigation at the Biobord platform.

Number of respondents: 24

The results of question 7:

Responses
Forum navigation requires some information about what goes on in different categories
It is hard to find what I am looking because of the relatively flat structure and lack of tree. It also produces quite long strings if you get a discussion with many answers. It ends up with relying on email notifications if you think you must answer or not, and to navigate
Too many sections and sub sections, too many different topics in the Biobord developers' group. It is hard to understand what requires urgent response and what information is less relevant.
Can be difficult to find documents and where to discuss what.
Not clear system of searching for interesting subjects or documents
It takes a while to understand how to use the Biobord platform, but after a few minutes, all become clear. I would suggest not to mix language versions on the main page. The categories should be described in English, the discussion could be continued in other languages, if necessary.
Elements in News subpage can be interacted with, but do not have a cursor on them when hovered. Conversely, main navigation buttons have a cursor, but there is no hover effect, which is very counterintuitive.
It is difficult to know where to look, to know which group you are supposed to search in
It works well
The Platform could be more intuitive. There are too many topics and when a given issue concerns more than one topic it is sometimes challenging to find / respond under the right topic.

Going back from a topic is sometimes difficult.
So many threads, so many discussions. Not easy to find one specific topic or document; it takes time.
Finding the right documents posted in diverse forum posts takes too much time
It is difficult to find the real date of post publication - you can only find how long time ago it was published
It is not so easy to find what we are looking for. There are so many topics, and the searching feature does not work correct. The platform is not really intuitive, sometimes it' s difficult to go back to the topic.
Lot of information on displays. Needs to read very carefully, and still I miss sometimes the point I am looking for. If you are not a native some user, many procedures feel unlogic. We oldies have learned to read different type of displays. That is a fact that probably stops many users interest to go further.
The "services" and "news" parts are easy to navigate. It is a bit more challenging to understand the structure of the Forum, especially, the Biobord Network Actions part which encompasses many different topics. As soon as you understand the way how the topics are structured, it feels quite easy to navigate. The "search" function is also of help.
If you don´t use the platform daily, it´s hard to remember where to find certain document. But it´s a same problem with all platforms.
I have gotten messages in my e-mail but do not really know how to continue communication about them.
Searching for information, posting information, testing.
Mainly the problems may arise from that I am not yet so familiar with the structure and contents of the platform.
Too many categories, but basically it is easy to navigate.
I think that my difficulties are mostly caused by lack of usage of Biobord
For me, the hardest task is to identify the different discussion forums - I must use "search" almost every time in Biobord

Conclusions and comments: It are very optimistic to have 24 comments out of 33 responders. Most of the comments stress the intensity of Biobord usage as a base to learn navigation technology and technics. Few users indicated the need for documents search which is planned to be available as a data base in the next stages of Biobord development. Some technical and logic aspects should be addressed by Biobord developers along with IT Team: flat structure, lack of tree, grouping and limitation of sections and topics, assistance in discussion involvement (new messages since last visit), going back from the topic, dates of posts publications, etc. RDI2CluB team should consider some limitation in number of categories and topics. To attract final users, it is worth to consider the development of common application for a new project with participation for all interested parties. Maybe we should establish a few future consortia to apply for H2020 projects or get ready to

Horizon Europe. Having few leading and attractive goals we should be able to establish broad discussion forums in other topics.

Question 8. Did you get adequate instructions in support for starting to use Biobord?

Number of respondents: 33

- Yes
- Mostly
- Partly
- No, not at all

The results of question 8:

	Number	Percent
YES	20	60,61%
MOSTLY	12	36,36%
PARTLY	1	3,03%
NO, NOT AT ALL	0	0%

Conclusions and comments: Biobord instructions are at a satisfactory level (97%). We need to spend more time to make Biobord more attractive. In our opinion, it is not so much a matter of look or even navigation or intuitively problems. For most users it should be “business attraction”. It means all users are looking for direct benefits from using Biobord. We have quite numerous and ambitious goals like bioeconomy awareness building, searching for partners, knowledge exchange, etc. All users will be happy to be part of such and many other bioeconomy development activities as soon as we assure direct benefits for persons representing their institutions or businesses.

Question 9. Please describe what instructions or support were missing?

Number of respondents: 9

The results of question 9:

Responses
-
A simple and SHORT "how to use Biobord" general introduction video or short step-by step introduction tutorial document that is available at the landing page, would be much more helpful than several, complicated and long user guides.

Searching and navigation among forum subjects
cannot indicate
It was just users' fault to underuse the instructions
Since I am a member of the Biobord Developers group, it was my task to understand how the platform works. So, if I did not know how to do certain tasks, e.g. publish the data in wagtail, I consulted with my colleagues.
There were difficulties with first login in.
Probably all instructions were available - it is just not easy to catch everything at once
I got the instructions on very early stage - it is also learning by doing. I do not have time to read manuals...

Conclusions and comments: One of the users is asking for a short video with usage instruction, what is planned to be made quite soon. Other users stress on "learning by doing" and "no time to read instructions". With such an approach we need to pay more attention on intuitive and a clear tree of categories and topics being under discussion.

Question 10. Have you benefited from using Biobord so far? Have you gained?

Number of respondents: 33, selected answers: 73

The results of question 10:

	Number	Percent
NEW CONTACTS	7	21,21%
NEW IDEAS	12	36,36%
NEW KNOWLEDGE	16	48,48%
INFORMATION THAT IS VALUABLE TO YOUR WORK / BUSINESS	19	57,58%
ENCOURAGEMENT	4	12,12%
NEW OPPORTUNITIES	5	15,15%
OTHER BENEFITS, PLEASE DESCRIBE	5	15,15%
NO BENEFITS SO FAR	5	15,15%

Answers given into free text field:

Option names	Text
OTHER BENEFITS, PLEASE DESCRIBE	Project management platform
OTHER BENEFITS, PLEASE DESCRIBE	Increased cooperation
OTHER BENEFITS, PLEASE DESCRIBE	In some part, replacing email in project working

OTHER BENEFITS, PLEASE DESCRIBE	It is quite easy to communicate with project partners via the Biobord Forum, so it is good for the communication purposes.
OTHER BENEFITS, PLEASE DESCRIBE	discussion forum for our project

Conclusions and comments: It are a very impressive list of benefits indicated by Biobord users. Such a spectrum of gains proofs the main Biobord goals and development directions. In the next stages of development, we should also question a quality and usefulness of such benefits.

Question 11. How would you like to use Biobord in the future?

Number of respondents: 33

The results of question 11:

Responses
I would like to use Biobord as a project management platform
To try to keep updated about what moves around out there
1) Active use of the "Services" category. 2) Active promotion of the Bioeconomy hub via the Biobord. 3) Using Biobord to access expertise, develop new projects, promote hub members and their offers/ services/ needs/ requests of support
Not sure
As a platform to share ideas, contacts, know-how, etc. within bioeconomy.
Coworking, sharing of project ideas and looking for potential partners for new projects.
Business contacts and new opportunities
As a platform for the identification of valuable contacts for business development.
Not sure now, I am just observing its development for the time being.
To get in touch with expertise and other people, get new ideas.
I do not know
We would like to boost interest in the Platform in our region, however it might be difficult due to only one language version.
In project management
In project implementation
For finding and managing partner relations
cannot say
develop new projects, share other ideas, contact with people
It must be a place for knowledge, good practices share.
As a platform for communication and document management, also advertising

I think Biobord shall be the central platform where to find all relevant information (policy papers, research findings, calls for proposals, partner search) related to Bioeconomy, something like a central information depository; if the number and diversity of users is increasing, it can serve as a platform for contact establishment and formation of partnerships, and idea exchange platform specifically in the topic of Bioeconomy.
Try to use more than nowadays. And test the mobile version.
To make new contacts and new ideas
To get fresh ideas and feedback from other users
If it is more intuitive and contains more easily available information.
Probably as a source of information and possibility of networking
To create national and international networks, gather information related to ongoing projects and co-operation possibilities. Webinars would also be interesting.
international open networking & closed discussion forums
Searching for collaborators
To share information with other members of the research network.
To contact with other entities, but there are not so many so far
We are developing our regional smart specialization strategy right now - and bioeconomy is going to be one of our focus areas. I hope to be able to easily connect our regional partners with partners from countries around the Baltic Sea, to have a platform to exchange experience and find good examples for my strategic work within regional development and bioeconomy.
It would be a part of marketing channel
Info and networking space

12. How did you find the visual outlook of Biobord platform? Is there something we could improve?

Number of respondents: 30

Responses
The landing page top section should feature the name of the platform and explain the purpose of the platform
Good
1) Services category is currently messy -the services cards should be already classified by the service type, country, bioeconomy sector, upon their appearance. 2) Category names are very misleading. For example:

Open bar and its subcategories are not clearly understandable, especially for new users. I would strongly suggest simplifying the names (and reduce number of categories) so that it clearly resembles the function of the category. For example, instead of "open tap" just simplify to "funding opportunities" 3) The choose of visual style of the platform is too "cartoonish"
I like it. From my point of view no improvements are needed.
I think the visual is quite down to earth. There is no need for theatrics, I like the fact that it is kept simple and professional.
Not
It is ok.
Other than a few things I mentioned earlier the site is mostly clear with exception to the aside section in 'News', which looks rigid.
It is quite good
Generally, it looks ok, but sometimes there is too much content and it is a bit overwhelming and intimidating. Maybe we could put more on stress on that bioeconomy is something happening to everybody and we all are involved in it. Now the Platform seems to be more appealing to people who already know their place in the bioeconomy.
It is OK, but not something very special.
Improve the way of presenting relevant posts across categories - based on the match with the user’s profile
That is OK.
The landing page is a little messy, there should be a list of services, because finding relevant in these, is not so easy. I think that the news should be more separated from the rest of the page.
I like the way o visualisation. No improvements are needed.
It is frankly speaking confusing and messy
In ideal scenario, the platform accessibility can be improved, for example, for people with visual impairment (changeable size of letters, intensity of background colours).
I think is OK
The visual outlook is pretty and understandable
Visually it is ok.
Professional look
Outlook is clean and easy to go through; font is clear to read.
It is clear, once you know what it is about. Maybe a short introduction text could be useful?
Pretty much good
About the project manager's message. I cannot say yet.
It looks quite good.

It is little bit confused. Could you make it easier to find topics and functionalities?
Visual look OK

13. Please share any open feedback and development ideas to enhance the user experience in the Biobord platform.

Number of respondents: 24

Responses
Not easy to give any feedback because the hole design at the bottom makes it hard to keep up to date about what is happening inside Biobord
Limit the number of categories, simplify the user experience, clarify the misleading category names.
I am probably too old to get inspired of such a tool
We must put to the platform more important and valuable information to attract new users.
Biobord Forum is probably the most asset of the whole platform - it could maybe be more brought out on the front page, not as only a link at the very top. As this is where majority of the information and 'added value' is, there could be more links on the front page somehow directing people there.
No comments
I suppose I mentioned everything I meant to in previous questions.
With one click of your mouse you can join international enthusiasts of the bioeconomy. We all feel it is important, we all want to change the world, save it for the future. We are driven, we are imaginative. It is YOU that I miss!
Use of calendar is difficult. I do not understand how to and event there without adding new topic. It would help if you could respond to any message in a topic, now it is a list of answers without knowing which message they answer. It would be helpful to have a doodle kind of element in the Forum.
We need find an effective way of using social media to attract users to relevant posts. Email is dead. Find some way of integration with the big existing ones.
to highlight the benefits of using the platform
The responses for the topics are not so visible, there are too many different categories and subcategories
We need to provide information which will be valuable for our users and will attract a new one.
English is a barrier for many users. Practical and concrete content makes the system interesting.

Document management system shall be improved considerably if the platform is used as a project management tool. In the Network Action part, the topics that are not active for several months shall be closed and archived.
I would like to be able to change my username
Displaying the date of publication of posts
The software package looks good. But usability can be a challenge because there are so many levels.
It should attract more scientists; it should be more a source of knowledge.
As I am quite new as a user of Biobord I acknowledge the possibility to give feed-back, but I have not work much with Biobord until now. It is good to have the possibility to give feedback - so please continue to give such possibilities!
It is important to get more users to use this platform

Conclusions

Biobord users indicated a large spectrum of proposals for its future use. At this stage of Biobord development, we should spend more time on gravity and attracting present and future users on a few very attractive goals instead of being too ambitious with limited time and other assets needed for omnipotent bioeconomy development IT tool. It is very good to notice very good responses and comments from the business type users. According to received comments and proposals from this group they mostly have no problems with navigation, instructions, support or using on mobile devices. Spectrum of benefits for business users is slightly lower than for academic, researchers, policy, and public administration staff, but same as it is with start-up users, it a matter of time to reach an expected level of benefits.

5.2 Polls on needed changes

Respondents were asked to vote and determine which of the presented tasks need urgent attention.

Question 1. What are priorities to you from the recommendations (max. 2)- *Number of respondents-14, number of votes cast-25. The selected proposals:*

- We need to communicate the benefits of using platform - 71%
- We need to provide more knowledge on bioeconomy – 64%

Question 2. To help the navigation in the Forum, which proposals would you agree with (max. 5) - *Number of respondents-13, number of votes cast-24. The selected proposals:*

- We need to simplify the purpose and the operation of the 'Biobord Network Actions' category to help external users to get involved – 76%
- We need to change the names of the open bar categories to more descriptive ones to help the users in navigation – 53%

5.3 Feedback from the Focus groups discussions

The leader of each focus group provided a short report from the webinar to express key issues noticed during the meeting and assist PP9 (Foundation for Education and Social Dialogue PRO CIVIS) in elaboration of this report.

1. Feedback concerning Technical Criteria

Technical problem 1.

Registration must be improved. In the current version, the registration mail is open only for a couple of hours. If you are limited in time or the confirmation e-mail gets classified as a spam, the user must contact the administrator to delate the account or start a new account with another email.

Recommendation proposed by forum participants:

To keep the confirmation of registration e-mail open for a longer period.
To allow registration with Google, Facebook, or LinkedIn accounts.

Technical problem 2

Issues solving. Currently technical issues are solved with direct contact to administrators or via the 'Feedback and technical support' category in the forum. A 'request for help' ticket system is also being implemented for the next upgrade launched on January 15, 2020. A Discobot automated chat is also already available for all new users to help start the use.

Recommendations proposed by forum participants:

To activate Discobot chat option by promoting it to new users.
To make concise help tutorials in a video format.

Technical problem 2

Quality of navigation in Forum must be improved. Currently, there are a lot of topics and it is difficult to discriminate between relevant and less relevant information. Due to many opened topics, the use of Forum involves **lots of scrolling up and down**.

Recommendation proposed by forum participants:

No recommendation from forum participants how to solve this problem.

Technical problem 4

Relevant info about other users. There is no information found on the current users of Biobord (both natural persons and legal bodies).

Recommendations proposed by forum participants:

It would be worthwhile to consider the development of "Members area" where the users can find information about other Biobord users, thus improving networking possibilities. This must be done respecting requirements of GDPR.

The map on the Landing page could also depict countries which are represented in the Biobord user community. That would give more serious image of Biobord in the eyes of potential new users as they would see the Biobord network geography.

Technical problem 5

Feedback collection. An online survey is a useful tool for the feedback collection and shall be applied also in the future category **Communication among Biobord community members.**

In the forum it is difficult to keep track on everything and to find relevant information or topic of interest. There is lot of information, but it is rather difficult to notice the important ones.

There are **too many topics** on Biobord, and it is not so easy to find what we are looking for. The forum categories are like each other, the name of the categories does not reflect the content.

Recommendation proposed by forum participants:

Tags should be used in the messages to alert the ones that should read the topic.

Also **calendar** and doodle-function are needed for this kind of use. Ccalendar should be added also to the Network Actions -category and the polls can be used as "doodle" to set the dates.

We should limit the forum categories and the names should be self-explaining.

The possibility of registration with e.g. Google and Facebook account is technically feasible to be integrated to Biobord. The exact limitations, potential challenges and risks are defined after the integration of Document Management System is complete.

Learning to use forum features such as bookmarks, notifications and tags can greatly improve user experience. Quick tutorials are planned to help new users in adopting these features

2. Feedback concerning User Acceptance

Biobord gravity and willingness to use Biobord. Currently, the involvement of new users requires lots of personal communication and explanatory work by RDI2CluB partner – what Biobord is, who it is for, what kind of services it provides.

There could be a simple **scheme for newcomers'** involvement and an attractive tool to encourage new users to introduce themselves when registering to the Biobord. This could help the network to build up. One idea would also be a "person of the week" campaigns or some other way to introduce users.

3. Feedback concerning Effectiveness of Services

Project Lifecycle. Biobord has helped to reduce amount of e-mail communication among RDI2CluB partners. It ensures quite effective communication. The lack of document management system and integration with other tools (e.g. Google Docs, One Drive, etc.) is a major drawback as there are well-functioning and more and more widely accepted project management tools in the market, e.g. Trello, Slack, Microsoft Teams, etc.

Comments: It is necessary to note that Biobord is not a project management platform (or intranet) and it is not intended as such. The benefit compared to e.g. Teams comes from the open discussion environment and ability to connect with a wider network in the planning and scaling phases. In implementation, Biobord offers a tool for internal and open

communication as well as resource management and building open resource banks to connect the project team and external stakeholders.

Innovation Support. Information about Services available in the Landing Page is valuable, well-structured, and quite easy to use. However, currently it contains information only about infrastructures in the RDI2CluB partner regions. This shall be extended to other regions and countries.

There is very little practical experience with the use of other service paths within Local pilots' group.

<u>Recommendations proposed by forum participants:</u>

Services path shall be extended to other regions and countries.

To identify 1 to 3 new projects and apply all the service paths for their successful implementation from the very beginning. It is more difficult to transfer an ongoing project to the Biobord environment than to start a new project.

The "**About Biobord Network Actions**" - category text could be shortened and clarified to make it clearer that the category is open for everyone and meant also for actions outside the project or JAP's. This could be one way to activate the discussion. Other plans would also be needed, and additional discussion is needed to develop new ideas.

It is important to have good information about the **funding opportunities**. We provide too little information about funding activities we should have more information from the other countries about regional and national funding opportunities. Maybe the solution would be linking up possible finding opportunities from other sources (in our regions and in our countries). When we look through description, there is this double purpose of open tab category. Besides the finding opportunities, there are also other possibilities (like joining to some pilots or utilizing different innovation services).

The scope of funding opportunities is so huge, both on the European and the national level, and it is really hard to present them all and some of them are targeted to the specific group or region so there is no point for other to see them, it could be useful on the local area, not only the international area. What is more, there are also other funding opportunities, like business angels, venture capital. Instead of focusing on the sources of funding, we should rather look through the **problem/task** and solve it.

The idea of the **open tab category**, could be more connected with the service cards, because in many cases, we do not have to discuss the funding opportunities with others, and very often, funding offers have their duration, and the point is just to inform the users.

Open Bar should be divided into **2 categories**: 1) On Stage – web events' will be elevated as the main category; facilitation will remain with PP1 with support of PP2 and PP3. All partners are welcome to announce and organize tailored web-events. If support from facilitators is needed (e.g. for Zoom platform utilization), PP1 can help with the organization of a web-event. 2) 'Connect, solve, recruit and offer' / 'Bioeconomy expertise look-and-find' / 'Matchmaking area' / 'Biobord Open Forum'/ 'What is your challenge' will be the category combining the roles of Mix and Mingle, Open Tap and Challenge Accepted. All hubs will have a person named as facilitator and contact person of the forum that can advise the users in their region, welcome them to the forum and help them connect with the needed experts or announce their own expertise. The area works for introducing network members as well as for connecting demand and supply of expertise, talent, and support.

Specific tags are identified for the category, so that people can adjust their notifications of new topics based on their interests. The facilitators are advised to track the whole category. New users registering to the platform should always receive a welcoming message from administrator and regional facilitator to advise the use of this forum category and encourage people to introduce themselves and propose interest areas for international collaboration.

It would be good to have a place where we can just **chat to get to know each other** with the users who are already registered. It would be easier to communicate in another situation.

We could think about dividing the forum by types of sectors like agriculture, chemistry, blue economy. This could be clear and understandable for all the users.

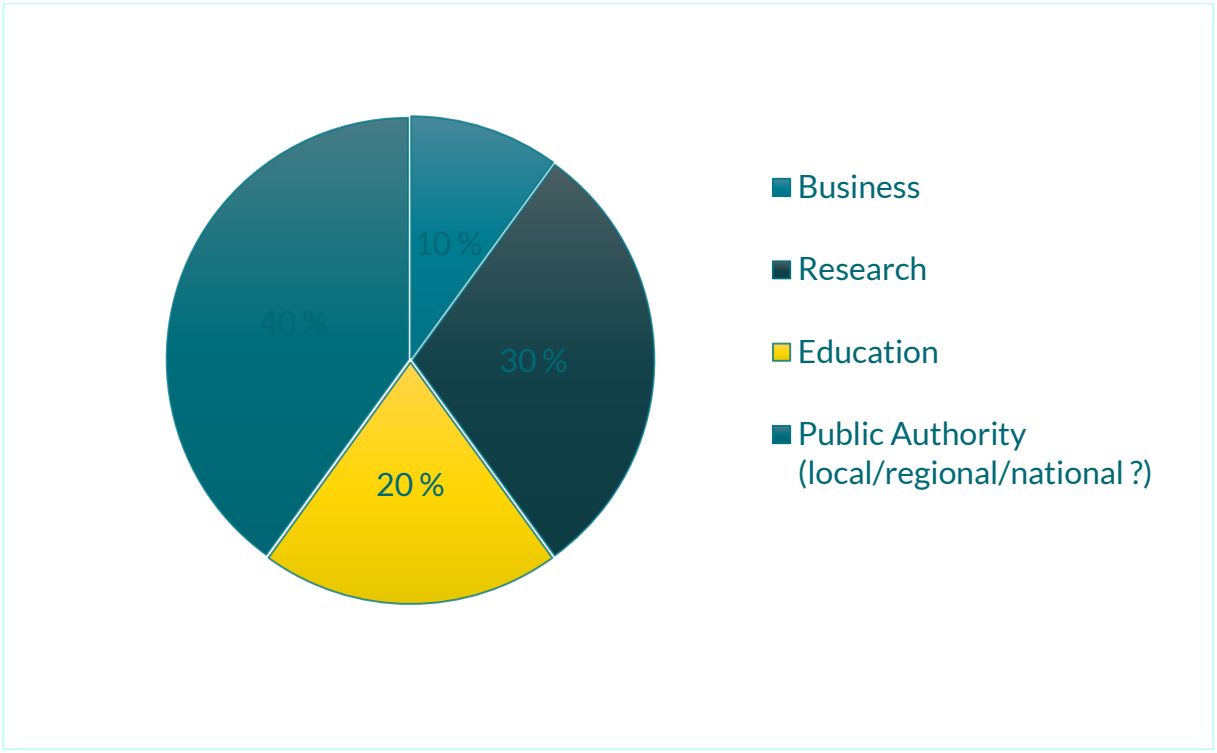
Closed forums should appear on screen for all users, preferably with pop-up of short description and with contact info for the group facilitator.

5.4 Biobord Open Survey

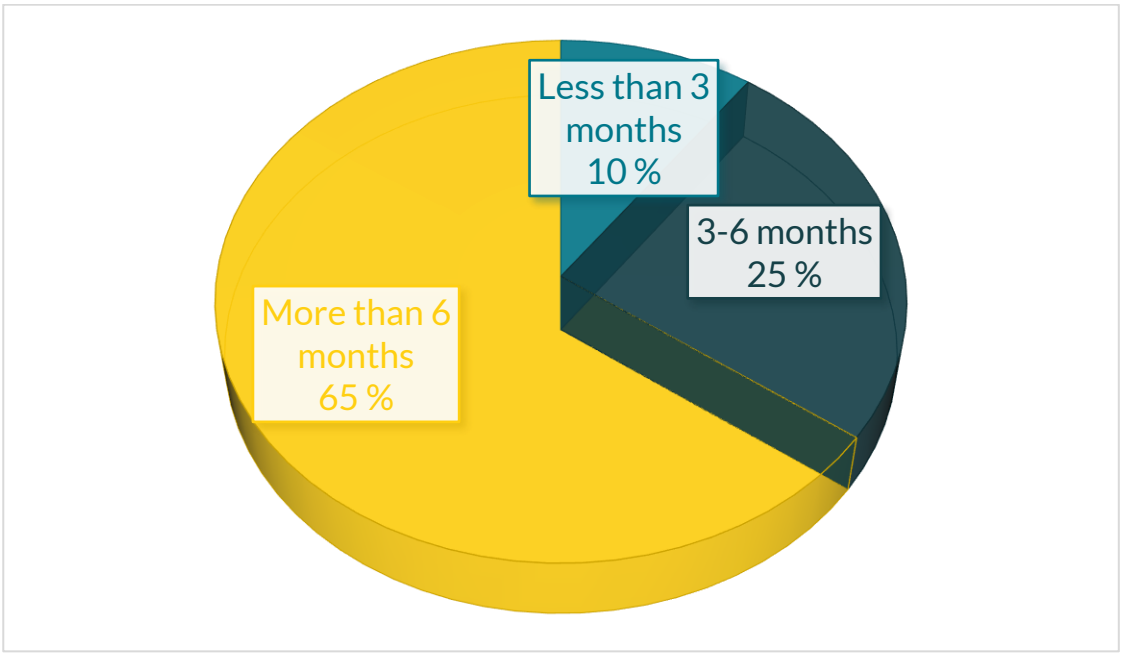
From 30.04 to 09.05.2020 the Biobord feedback survey was conducted. The survey was dedicated to all registered users. The purpose of the survey was to develop the platform with the feedback and experience of the different user groups. The survey consisted of open and closed questions, the number of respondents – 21.

Results:

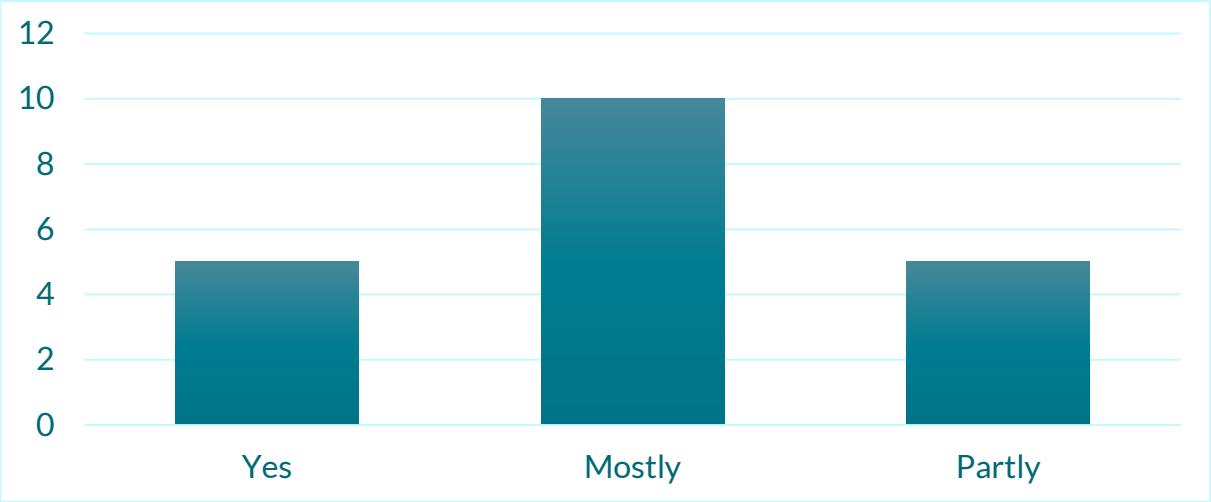
Q1. What kind of entity do you represent?



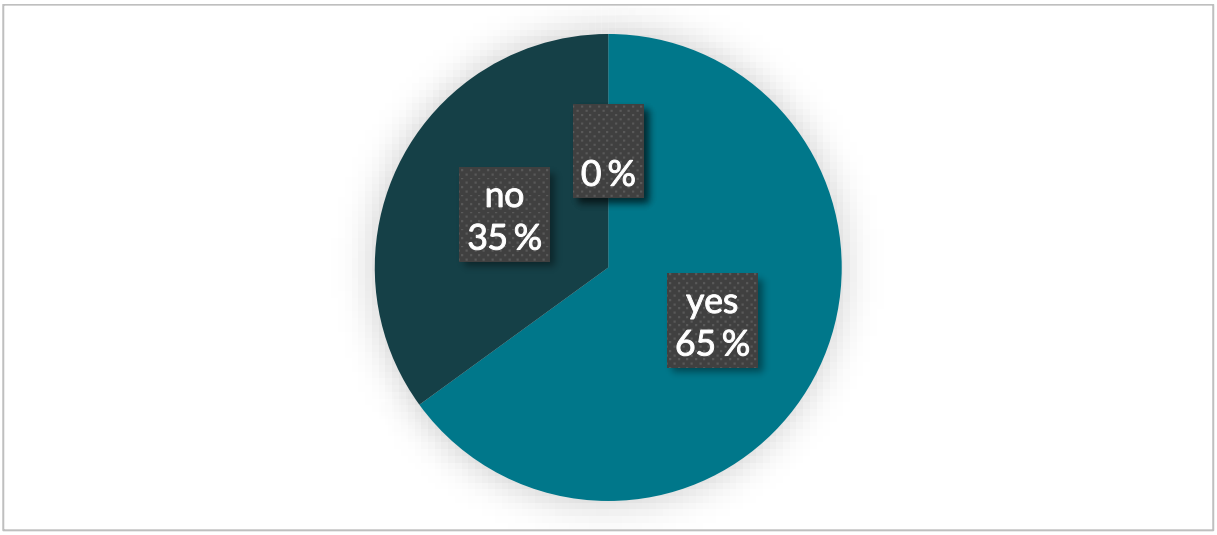
Q2. How long have you been using Biobord?



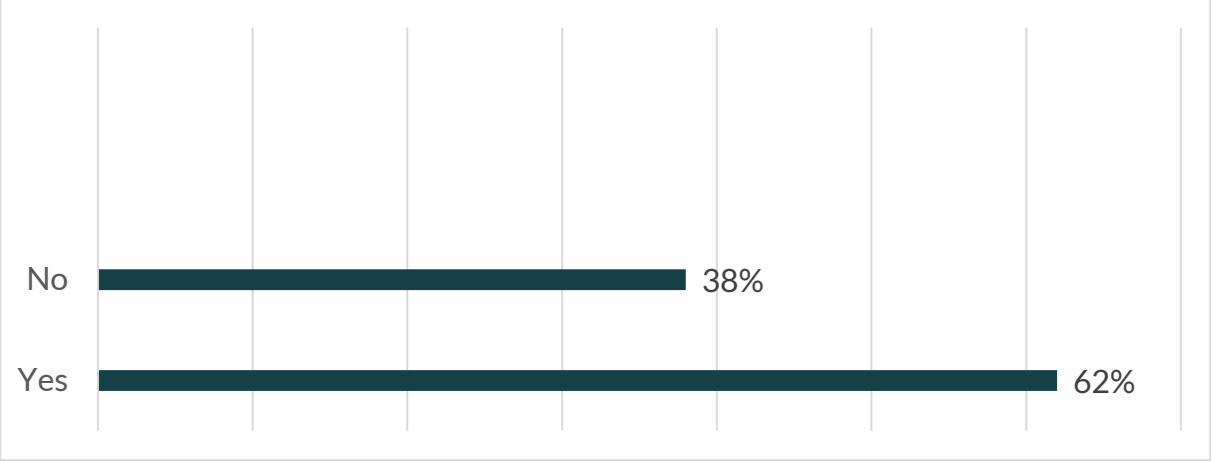
Q3. Do you find it easy to navigate Biobord?



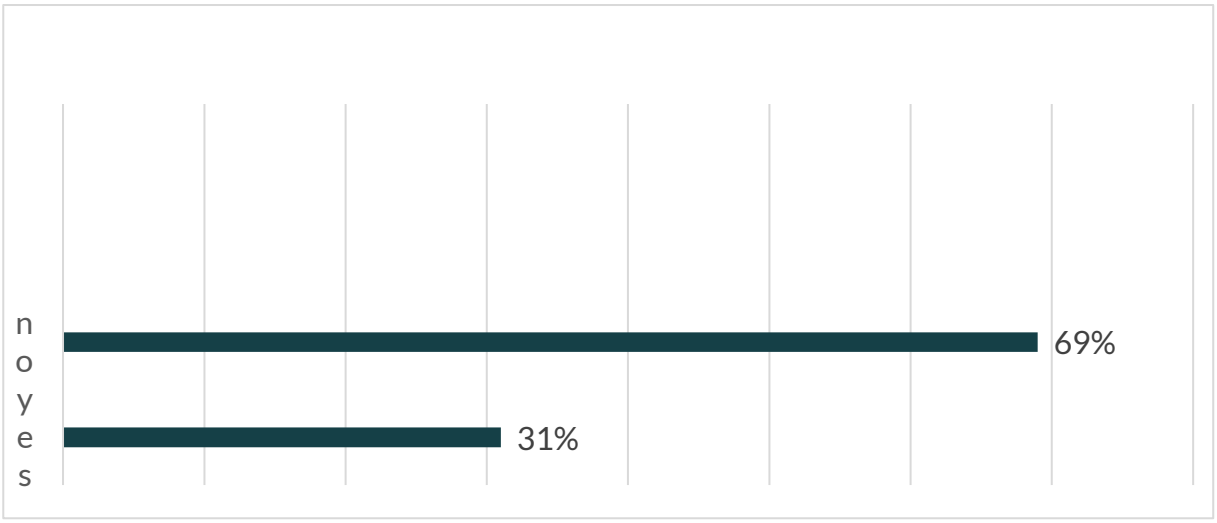
Q4. Was it easy for you to find a discussion group appropriate to your needs and interests?



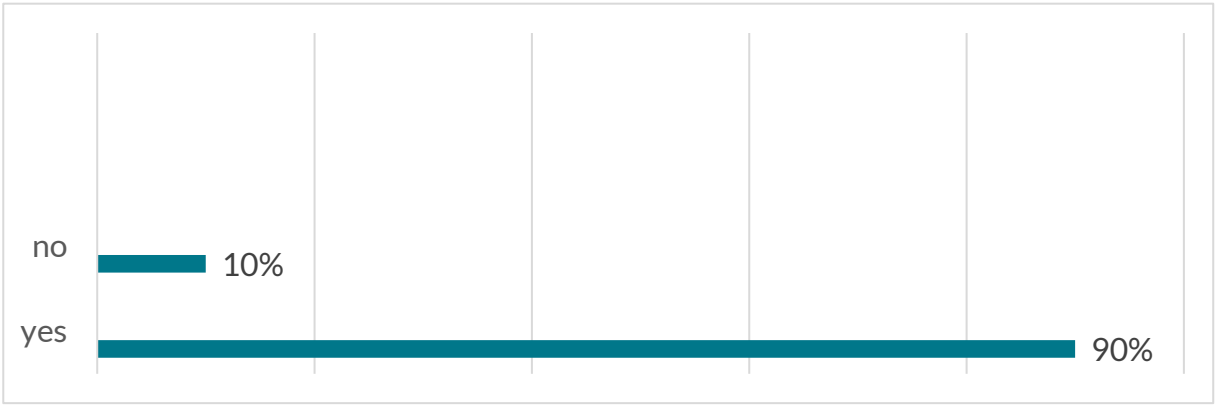
Q5. Have you ever used tags on the Biobord Forum?



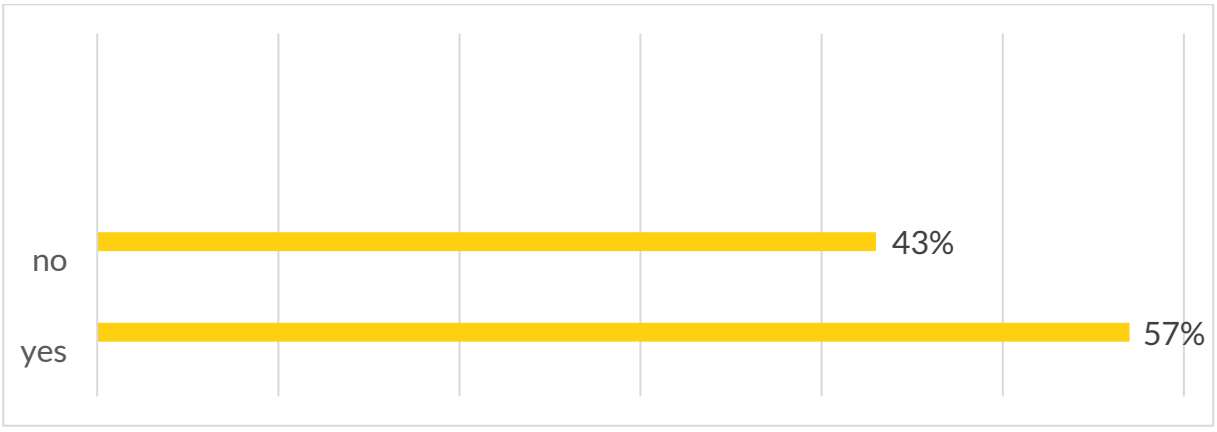
Q6. Have you encountered any difficulties? (in using tags)



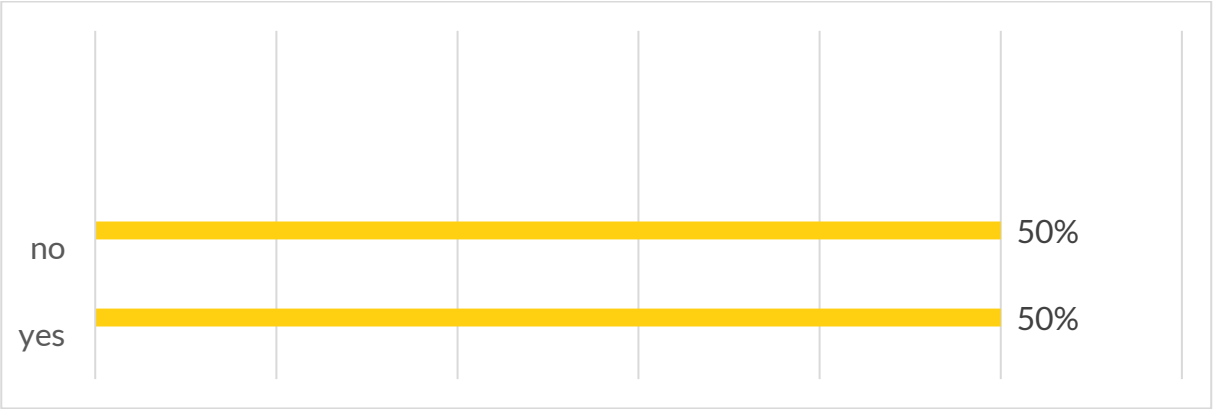
Q7. Do you find the Forum useful?



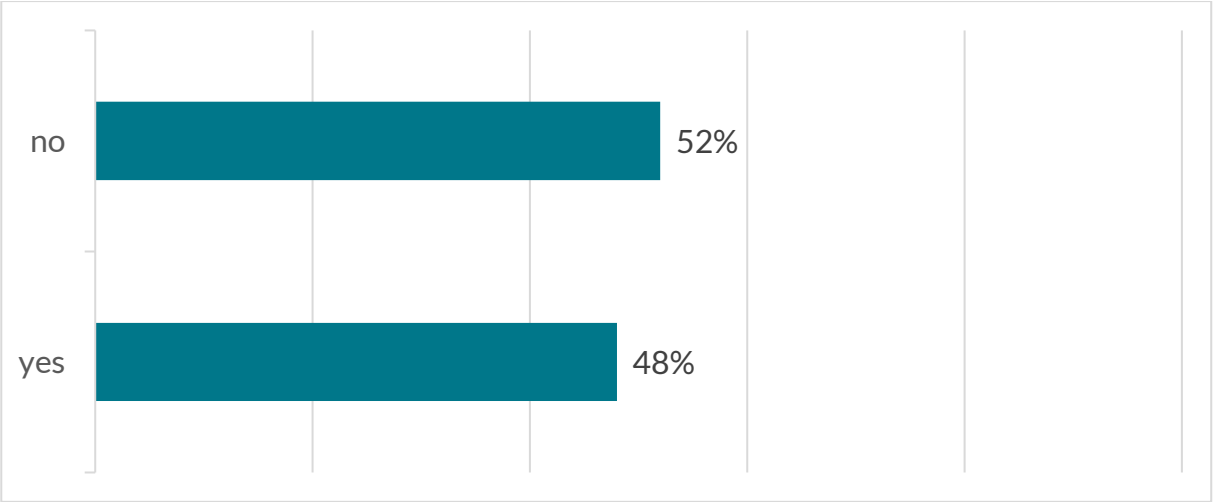
Q8. Have you updated your profile on Biobord (e.g. by adding picture, completing personal information)?



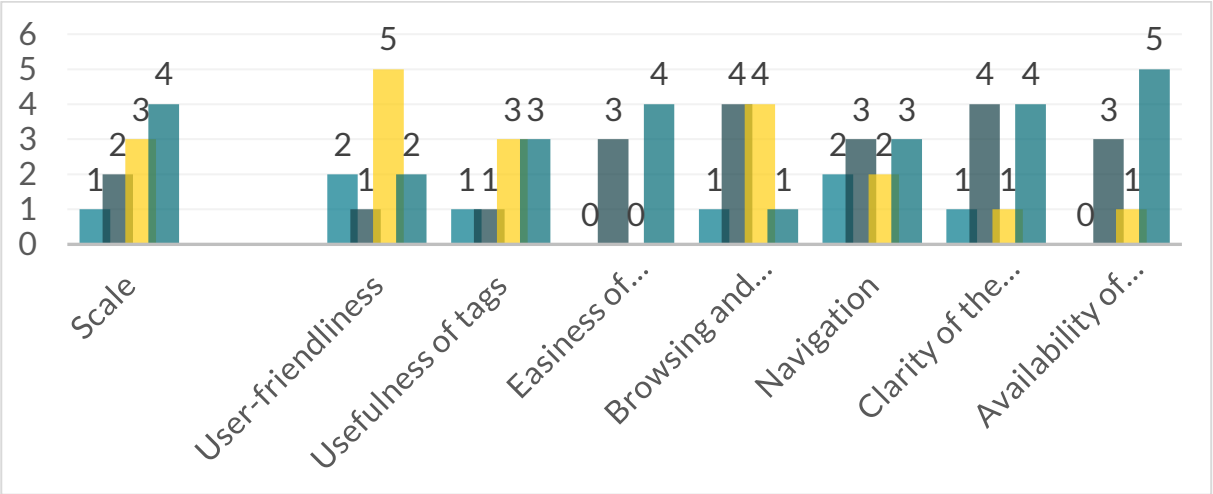
Q9. Did you find the interface easy to use?



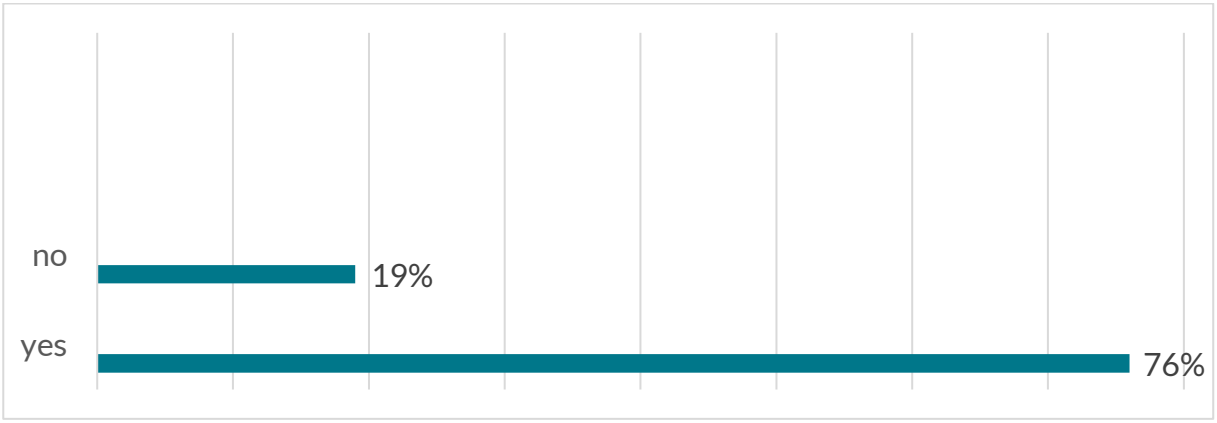
Q10. Have you ever used Document Management System / Resources?



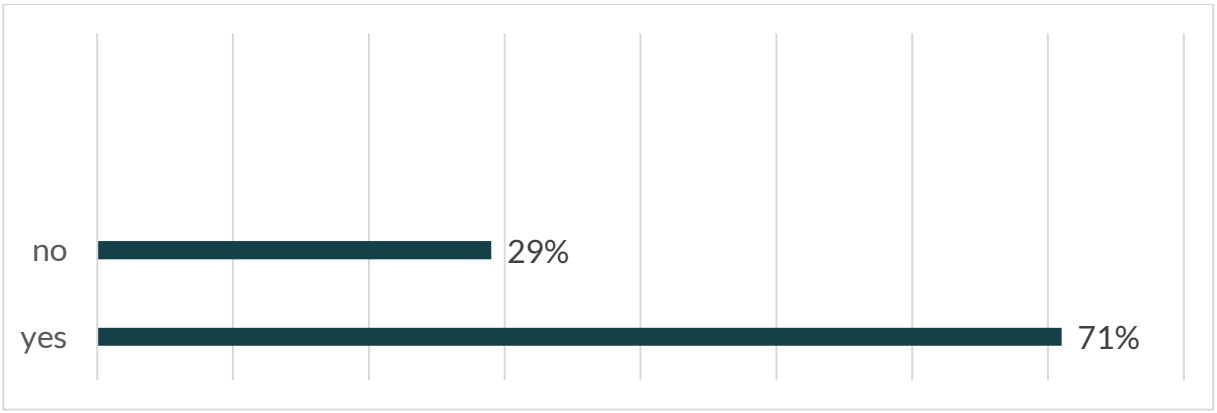
Q11. Rank of the aspects of DMS.



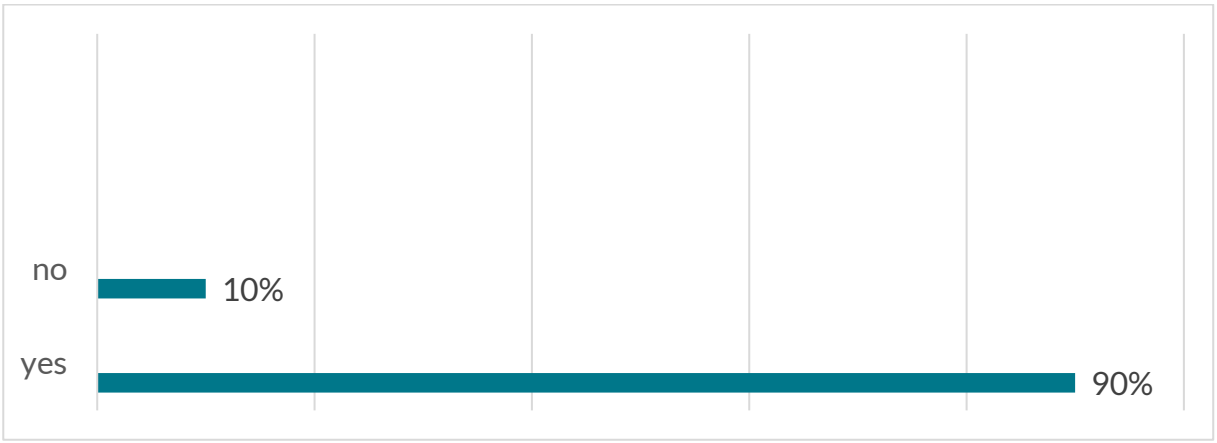
Q12. Have you uploaded or downloaded any documents to and from Forum topics / discussions?



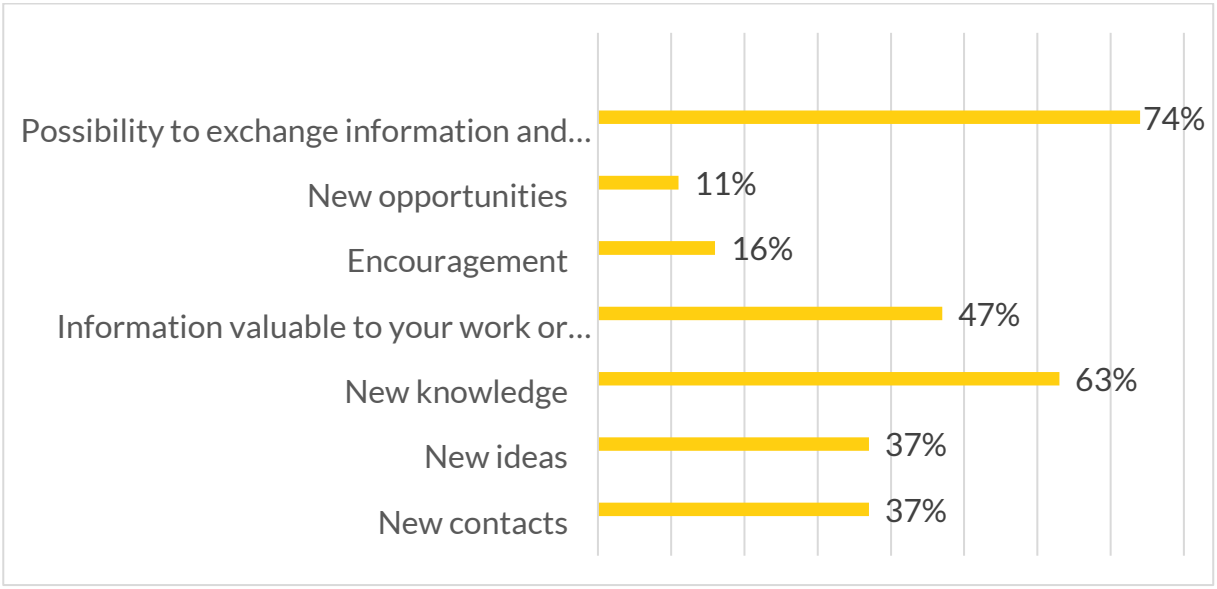
Q13. Did you receive adequate instructions and guidelines for using Biobord?



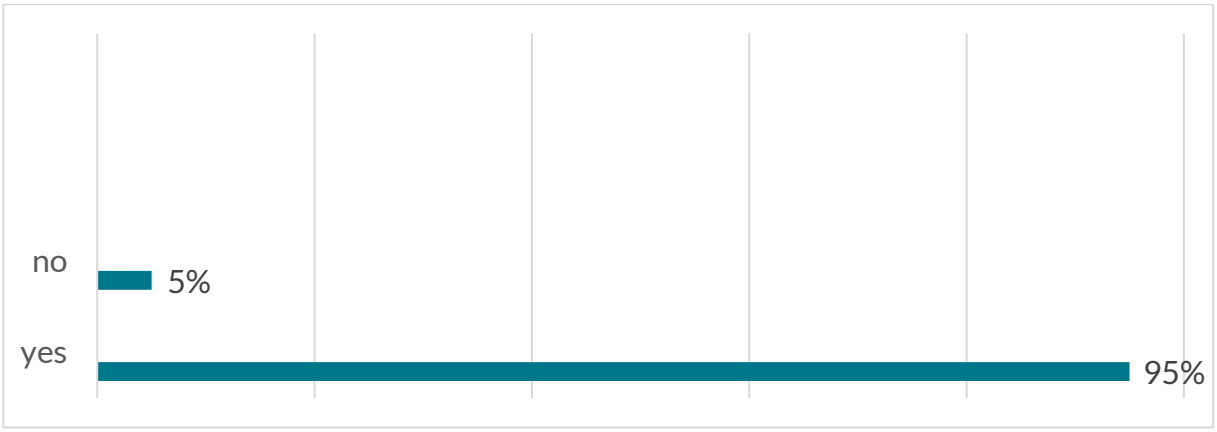
Q14. Do you find the graphic design and layout of Biobord appealing?



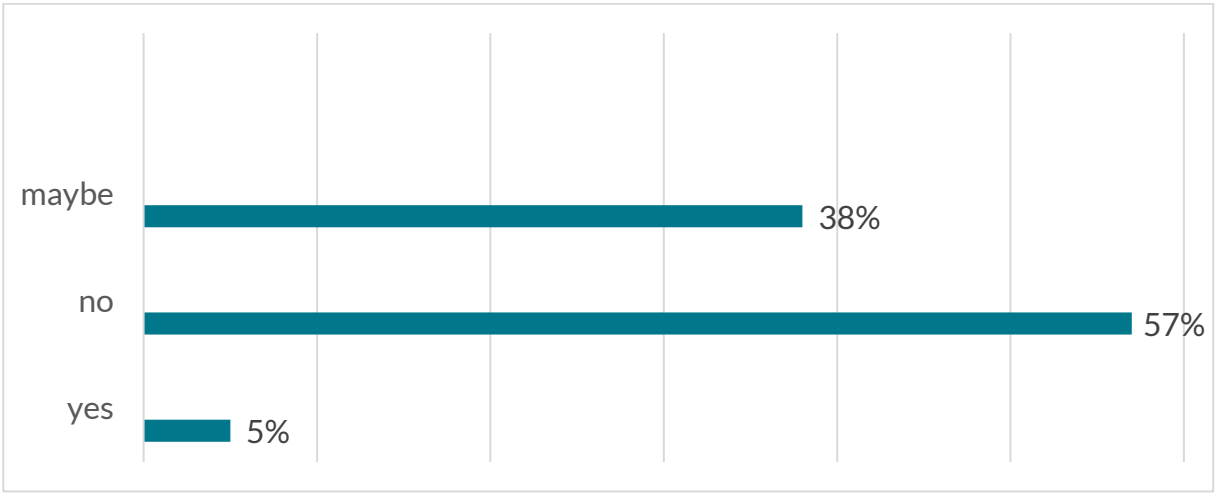
Q15. What have you gained from Biobord?



Q16. Would you like to continue using Biobord?



Q17. Would you be interested in using a paid version of the Biobord platform?



Feedback from open questions:

- The navigation still must be improved
- Difficulty in finding information that is relevant to the interest or the profession
- More styling options in topic text formatting should be added
- More interesting discussions should be started
- Difficulty in finding relevant information (too many categories under the main category, it is difficult to find past conversation)
- The usage of tags is still unclear (difficulty in knowing which tags to use)
- Too many similar icons
- Not so many users of the platform now, what makes that the platform is not so beneficial
- It might be useless for small groups
- Large numer of competitors

Summary of the survey:

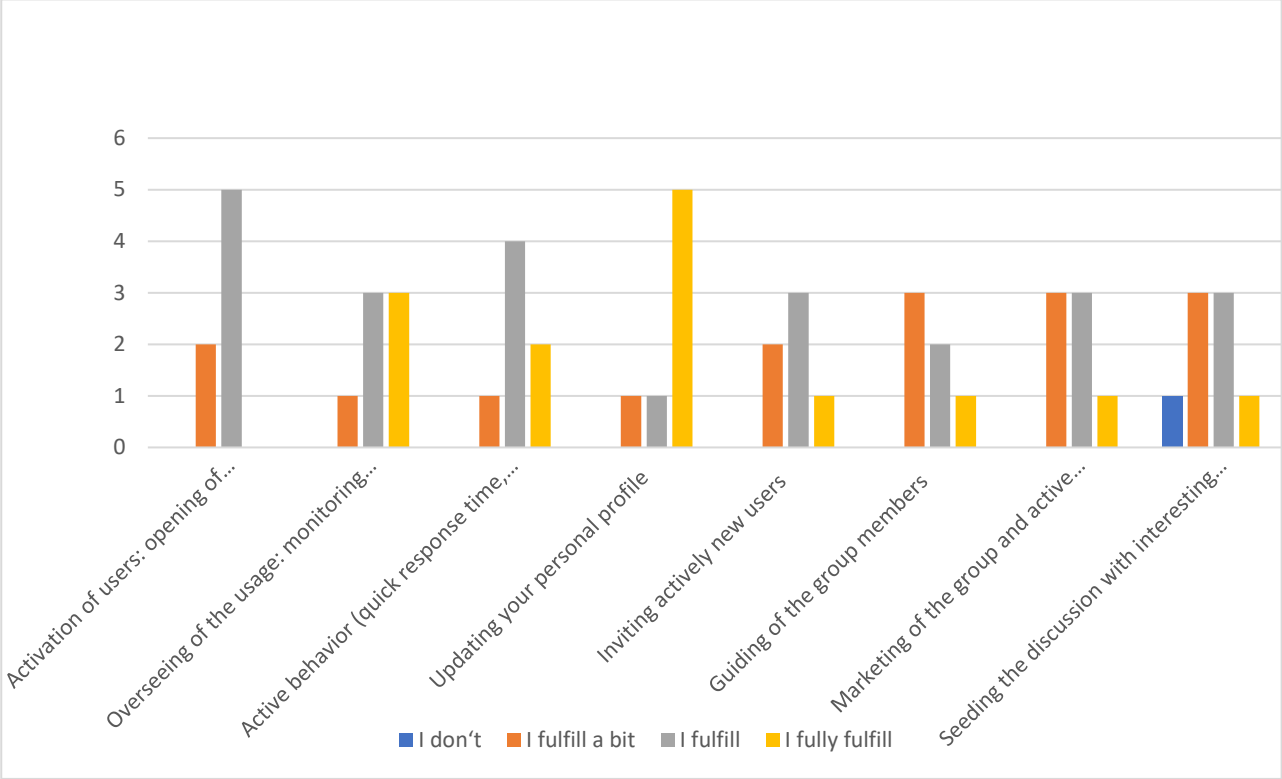
- Most users do not find Biobord difficult to use. Many users gained something from it, mostly new knowledge, new contacts, new ideas and information valuable in work. Most of the users find the forum useful and would like to continue using the platform
- There is still a need to improve the navigation and possibly the layout of the Biobord, the forum mostly. The usage of tags is still unclear. Only half of respondents have used DMS.
- The general conclusion of whether users would be willing to use a paid version was no.

5.5 Facilitators self-assessment

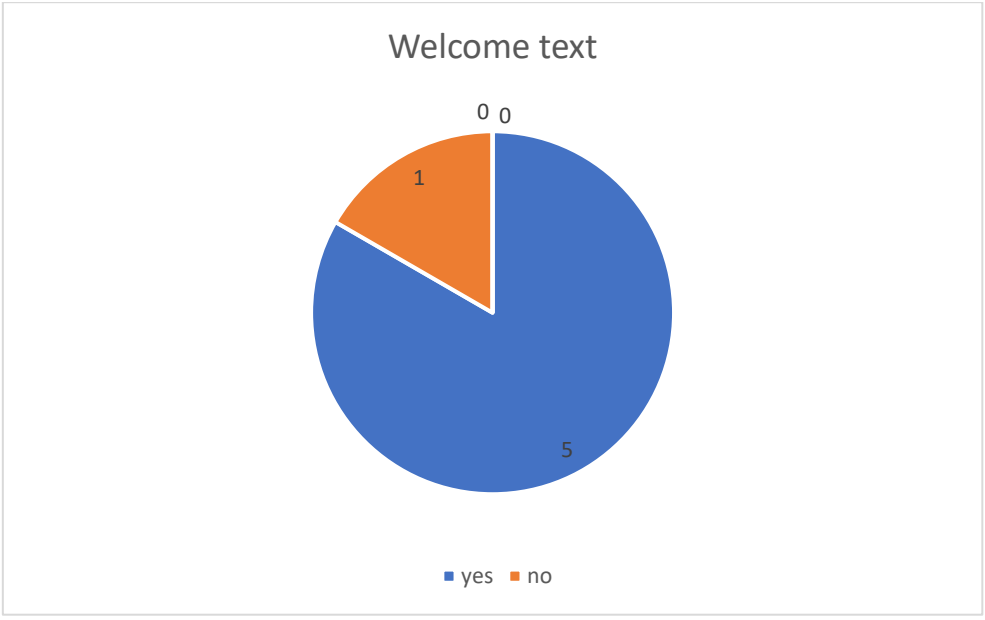
Facilitators of the forum categories were asked to fill the self-assessment form and share their experiences and difficulties with forum facilitating (27.04-01.05.2020). The number of respondents: 7.

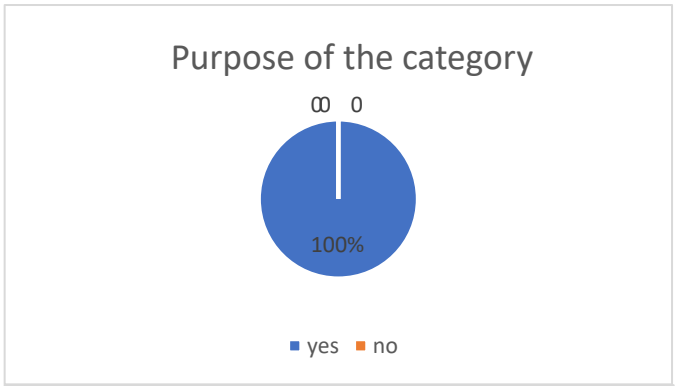
Results of the self-assessment

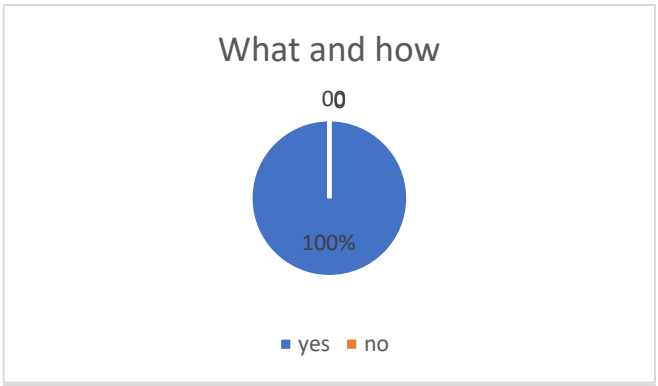
Q1. How can you access your involvement in the following activities?

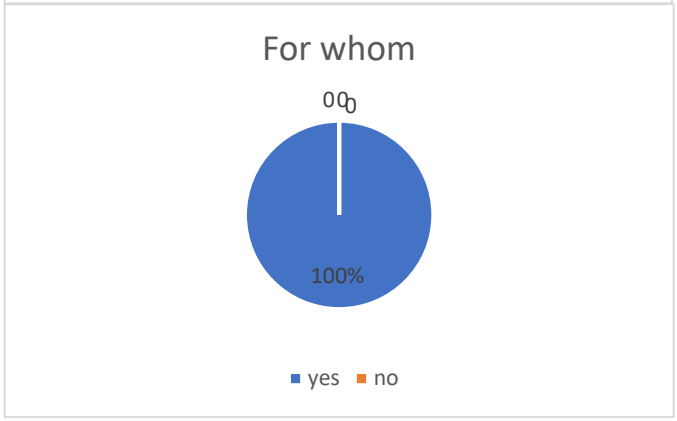


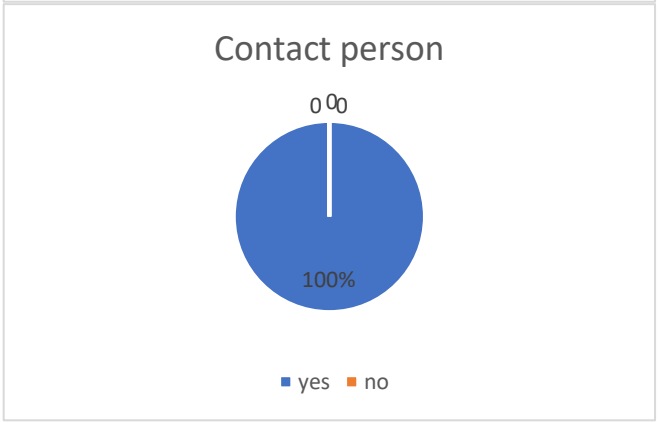
Q2. Does description of your category include following information? (Answer YES or NO)*question for open groups



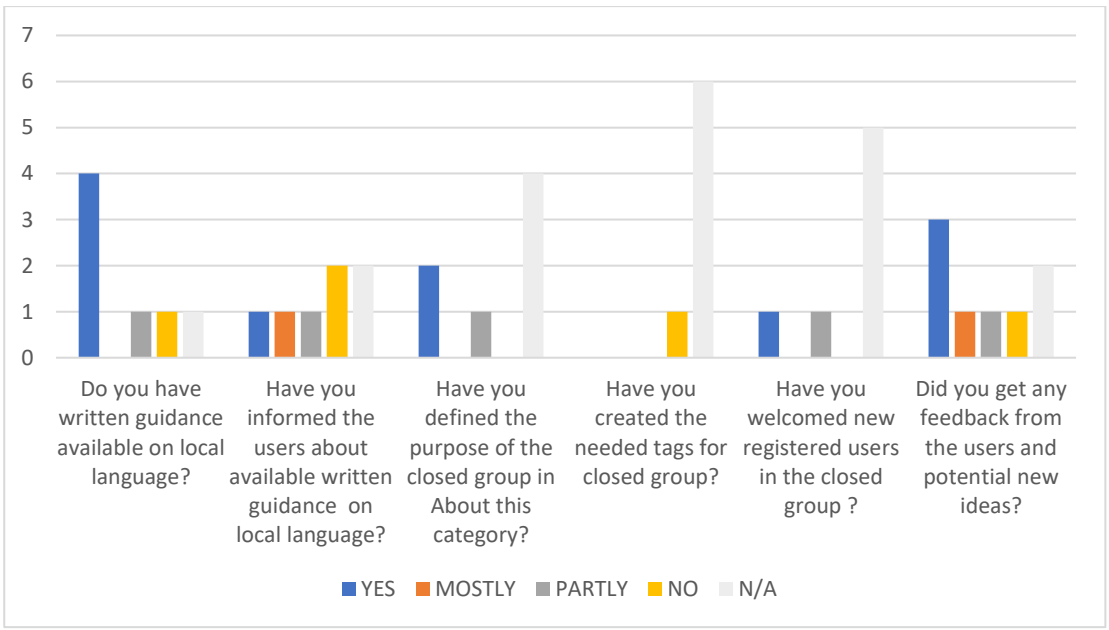








Q3. Please choose the most suitable answer for the following questions:



Q4. Please describe how you invite users to join the forum community (face-to-face meeting, introduction events, personal emails, or social media channels).

- Personal emails (with instruction how to sign-up)
- Face-to-face meetings
- Social media (mainly Facebook and Twitter) and web page
- Support of others (experts, organizations) in informing about the group.

Q5. If you have any other comments or ideas for improvement the forum facilitation, please share them with us here.

- Groups are not so interesting for some users and that is why, they do not see the need of registering
- Some of the users had problems with registrations (misunderstanding while they have got confirmation emails) and navigation which should be more intuitive
- The process of facilitating takes time and it is not easy because of other duties and it requires some substance expertise
- It is not easy to convince people to get involved, they prefer to follow the conversation
- The facilitating of closed groups is difficult, especially when the foreigner wants to join, and he/she is directed to the national facilitator, and after that might not be involved in the right group.

5.6 **Biobord workshop (23.04.2020)**

Biobord workshop was related to Biobord platform and the future of network. Workshop started with presentation of the online survey results and network agreement survey results. After that, the discussion took place and it consisted of three separate discussion groups (policy, RDI, Business) with a discussion host, who presented the results after discussion.

Some ideas/thoughts based on the Biobord workshop

Forum categories

- Combining the Open Biobord with Biobord Network Actions/ Combining the Open Biobord with Biobord Network Actions and Biobord Network Lounge
- Categories disposal and improving tagging (tags in special colors or icons)
- Subcategories should have English descriptions/flag-icon to present the language used in group/Maybe we should have all forums in English (it is difficult to have several languages mixed)

- The search function should be improved and be more complex

Biobord Operational Model

- Biobord Operational Model is a good source of information for the RDI2CluB members, however not helpful for the external users, perhaps we should prepare a quick version for them. The transnational network of Biobord is seen valuable and partners are willing to carry on cooperation

Document Managament System

- Document Management System is not useful and user friendly, it is seeming to be too complicated, maybe we should consider if it's really needed to have it

On Stage

- Many users see On Stage category useful, however its concept should be developed, and we should focus more on the content/subject

Others

- Biobord should be a place where users can find a valuable knowledge, solutions, and practical information like starting and active projects
- The benefits of Biobord needs to be presented clearly and Biobord should be more specific, what must be well described
- Communication should be more open
- Some people see the need of extending the services of the Biobord across the Baltic Sea Region
- We should involve students and think how to get them benefited of Biobord
- The most important thing is to attract new users, especially experts, and it can happen when they will see actions and results of the forum
- Biobord should have a complex description what it offers, with the goals, aims etc. (it might be also used for marketing purpose)

5.7 **Advisory Board/Multiplier Group Meeting (29.04.2020)**

- Biobord should be more specific and personal than the other platforms (especially EU platforms), should have some features which differentiate it from existing platforms, and we should highlight those features
- Personal profile should be more detailed and include more specific information (profession, education etc.) Experts should be more highlighted (maybe some kind of notifications on a personal profile)

- We could use the gamification methods for users to improve their commitment (a kind of rewards or notifications for engagement)
- We should also discuss the issue of our network, maybe partners outside the project can join us
- Information about closed groups might be visible for new members to they could join the discussion