ECOLABNET

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VIA University College

Developing the External Collaboration Model

A process report on developing the External Collaboration Model, explaining the collaboration between RDI's, SME's and IO's

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ECOLABNET Network of service providers for eco-innovations in manufacturing SMEs

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Introduction

This report sum up the development process of the External Collaboration Model from research and benchmarking other collaboration models, through the development in close collaboration with all partners of ECOLABNE to the final result of ECOLABNET External Collaboration Model.

The first step with research and benchmarking is published in a report "Benchmarking Collaboration Models" (published 26 June 2020). The report was built around illustrations to ease the communication. This report will sum-up the main input into chapter 1 "Research Phase", and continue the use of illustrations in the following chapters.

The development phase, had several loops with designing the model and deciding on essential text with participation of ECOLABNET partners in decisions and confirming input to the model.

RDI = Research and Development Institutions (= Universities)

SME = Small and Medium-sized Enterprises

IO = Intermediary Organisations

Research phase

Text in this chapter is mainly condensed text from an earlier internal report "Benchmarking Collaboration Models"

The first step of the process was reading articles and online sources to make a general description of the collaboration between companies, intermediary organisations (IO) and universities. To find out what leads to good results in collaborations, we looked for possible barriers and benefits. We explored different perspectives and identified possible challenges in collaboration.

Different constellations of collaboration were found when reading the different types of text. Some collaborations are based on pure knowledge-sharing for the benefit of a better knowledge outcome, some on business-deal collaboration where companies develop in collaboration with researchers.

The triangle collaboration between intermediary organisations, companies and universities are more complex because of the different expectations for the outcome of the collaboration. The reason for participating in the collaboration can also be different which can also make the collaboration more complex. Here it made sense to look at some known examples of triangle collaborations and describe the benefits and challenges for each part of the collaboration as well as the difficulties the partners faced when juggling their regular work along with the collaboration project.

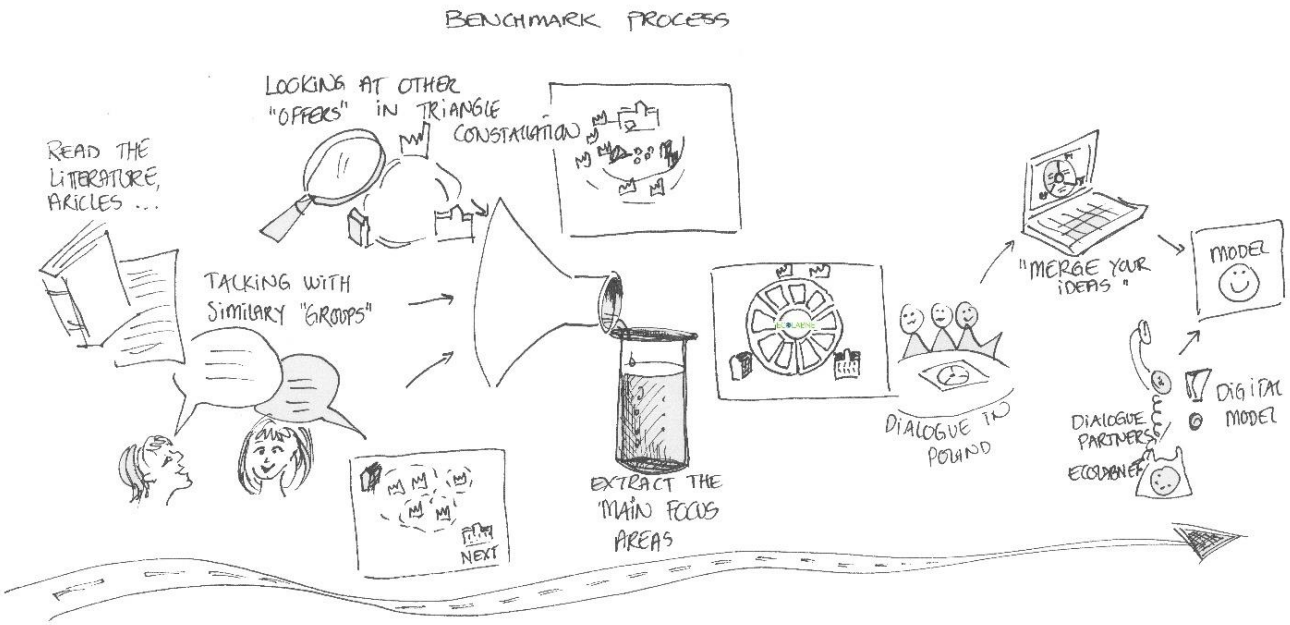

Illustration 1: Overall benchmarking process of Collaboration Models

Through literature research were gained an overview of the common features dominant in multiple articles. The primary focus is on how the SMEs and the universities each contribute to the collaboration, what they need and which barriers and challenges they face. More often than not, the communication approach is easier in the flat organization structure of the companies than the typically more bureaucratic structure of the universities.

Contributions and barriers

The companies contribute with a strong focus on results based on wanting to create economic growth. Furthermore, they can provide specialized machinery and test facilities. They have knowledge about the sector and about their own products, materials, processes and services.

The barriers of the companies are among others availability. This can be an issue, especially in peak periods. Furthermore, management might not want to commit, or they can be reluctant to share knowledge, etc.

The universities contribute with academic knowledge, focus on research which can result in e.g. a formalized research report. the universities also have easy access to students who can complete projects with the support of the professors, etc.

The main barrier for the universities is the structure of the semesters. The semesters can constitute a barrier because it might collide with the schedule of the companies and intermediaries.

The intermediary organizations contribute with a network of members and they often have access to a communication channel to this network.

Funding can be a barrier for the intermediaries as it is often tied to a formal project application.

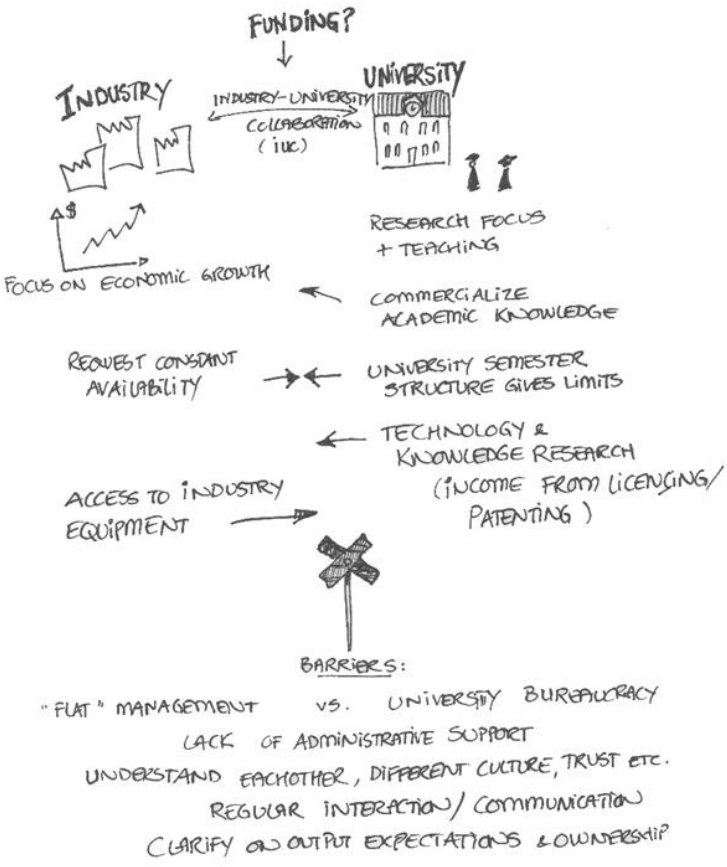

Illustration 2: Outcome of literature research

Benchmarking other collaboration models + Interviewing

The 3-part collaboration focused more on how to get the collaboration started, making a smooth operation and process, implementing results and finishing the collaboration with benefits for all 3-partner perspectives.

Experience from previous and existing collaboration between SMEs, Intermediary Organizations and Universities has been used to pinpoint what makes the collaboration work for each type of partner.

We benchmarked several different constellations of collaborations and networks to understand each partners position and what combined them in membership or network.

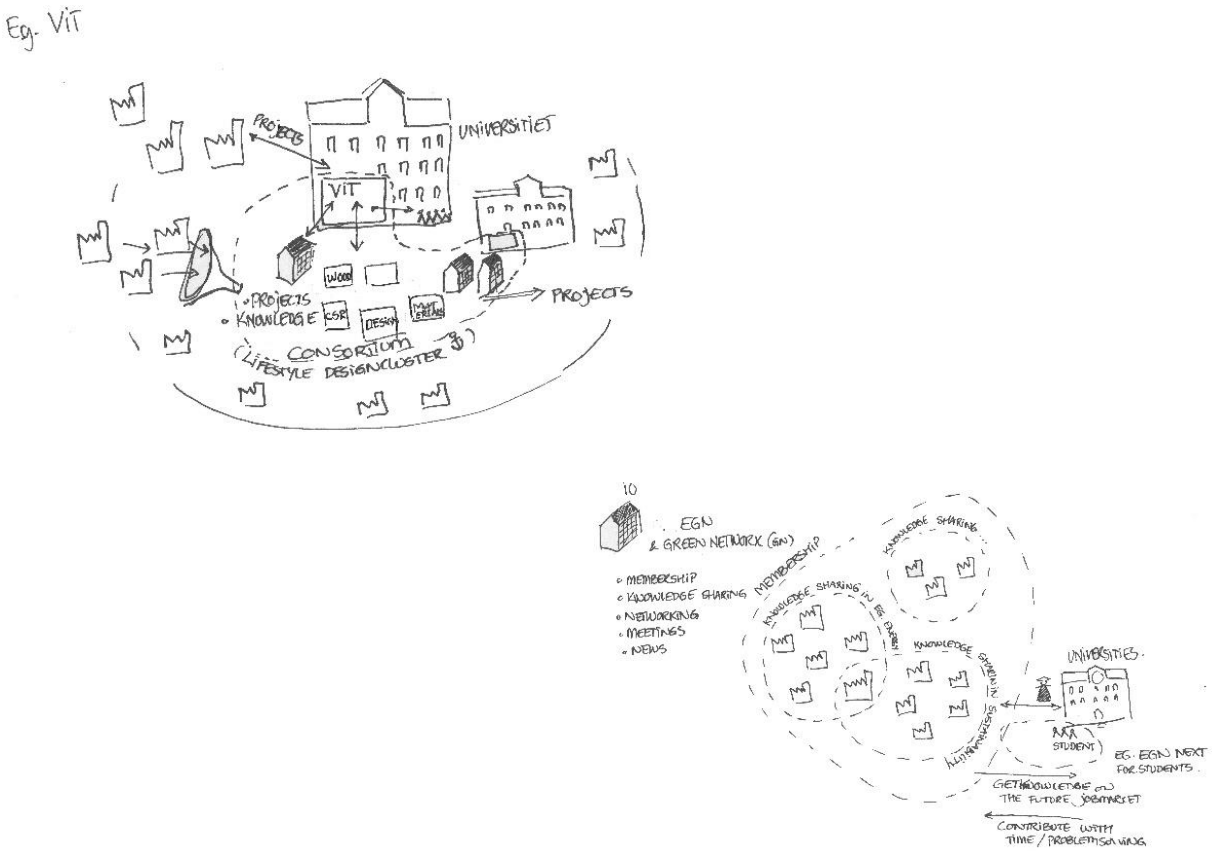

Illustration 3: Different constellations of Collaborations Models

Narrowing it down…

All the inputs from the research was condensed and provided a platform for a beginning development of an External Collaboration Model for ECOLABNET. Our team now focused on how ECOLABNET should be able to bring value into the collaboration between all partners. In a working step the inspiration came from the Business Model Canvas as illustration 4 below indicates.

Based on the input from the literature, we came up with the circle to illustrate the connection between the 3-part collaboration. We were looking for the link between the partners, how do they typically work together and what relation do they build?

The three areas where we needed more specific input from the ECOLABNET partners, were "What each partner need", "What each partner contribute with" (in future collaboration) and "What ECOLABNET should bring to the collaboration". We wanted to see if there was some coherence between the wishes and the expectations.

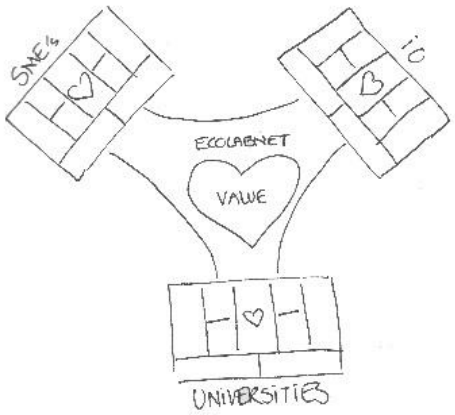

Illustration 4: Inspired by Business Model Canvas and ECOLABNETs value proposition

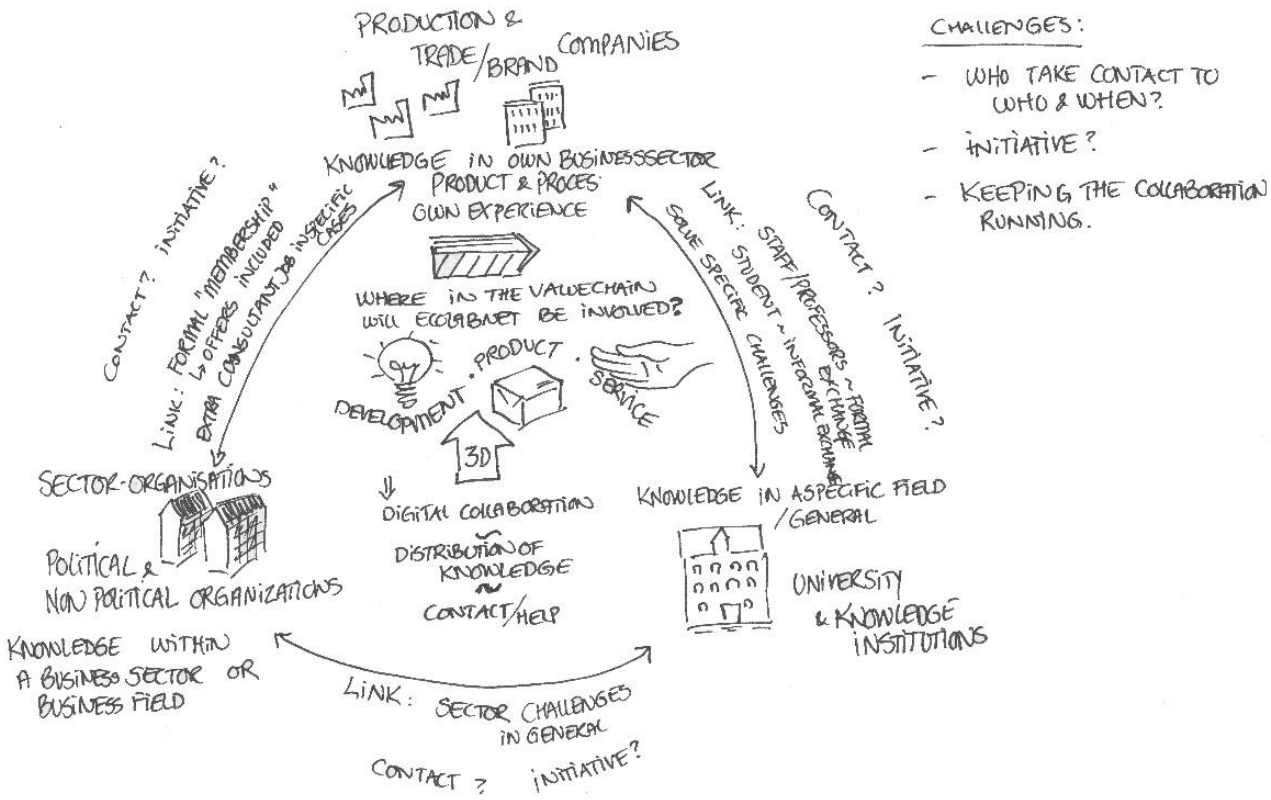

Illustration 5: First version of the sketch

The circle for ECOLABNET input

The research was compared and structured in the different elements of benefits, difficulties and pros & cons of collaboration. This provided perspective on what the three types of partners: intermediaries, companies and universities, each need, contribute with and finally what ECOLABNET can bring to the partnership. The circle around ECOLABNET is meant to illustrate that each partner in the collaboration is equal. This suggestion is based on our research and experience. However, the illustration can be changed or modified needed later.

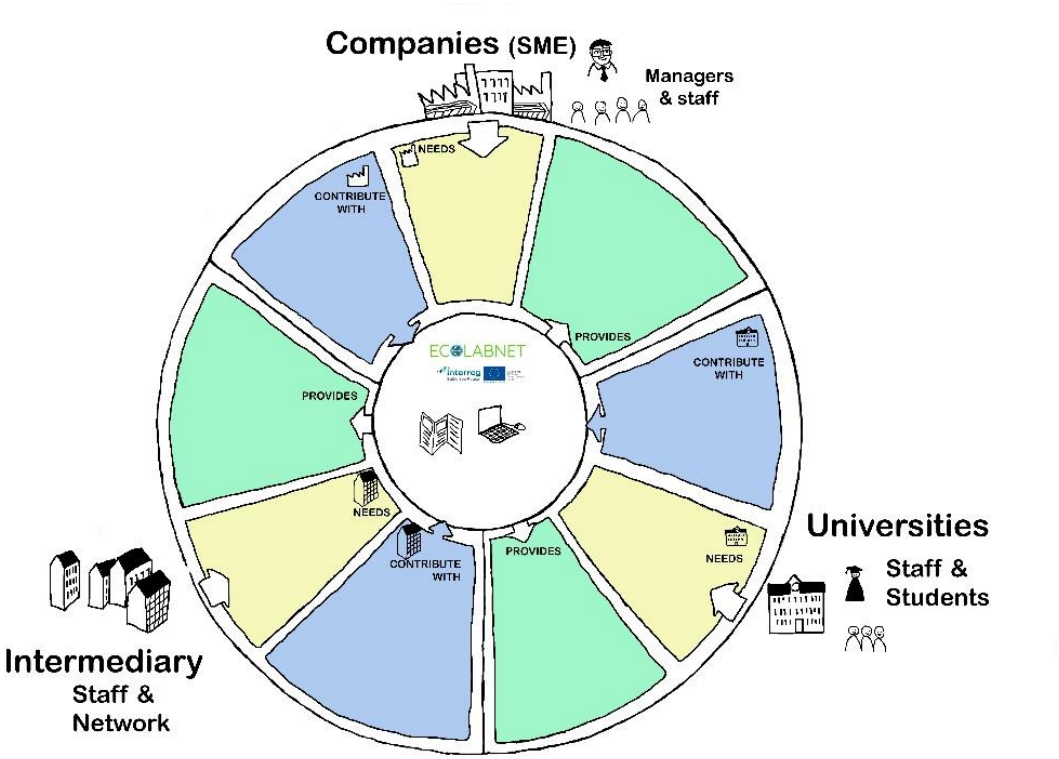

Illustration 6: The circle for ECOLABNET input

This circle was used on the partner meeting in Poland 2019. The ECOLABNET partners gave their inputs on the elements in the circle. The outcome of the partner meeting is illustrated in a final circle….

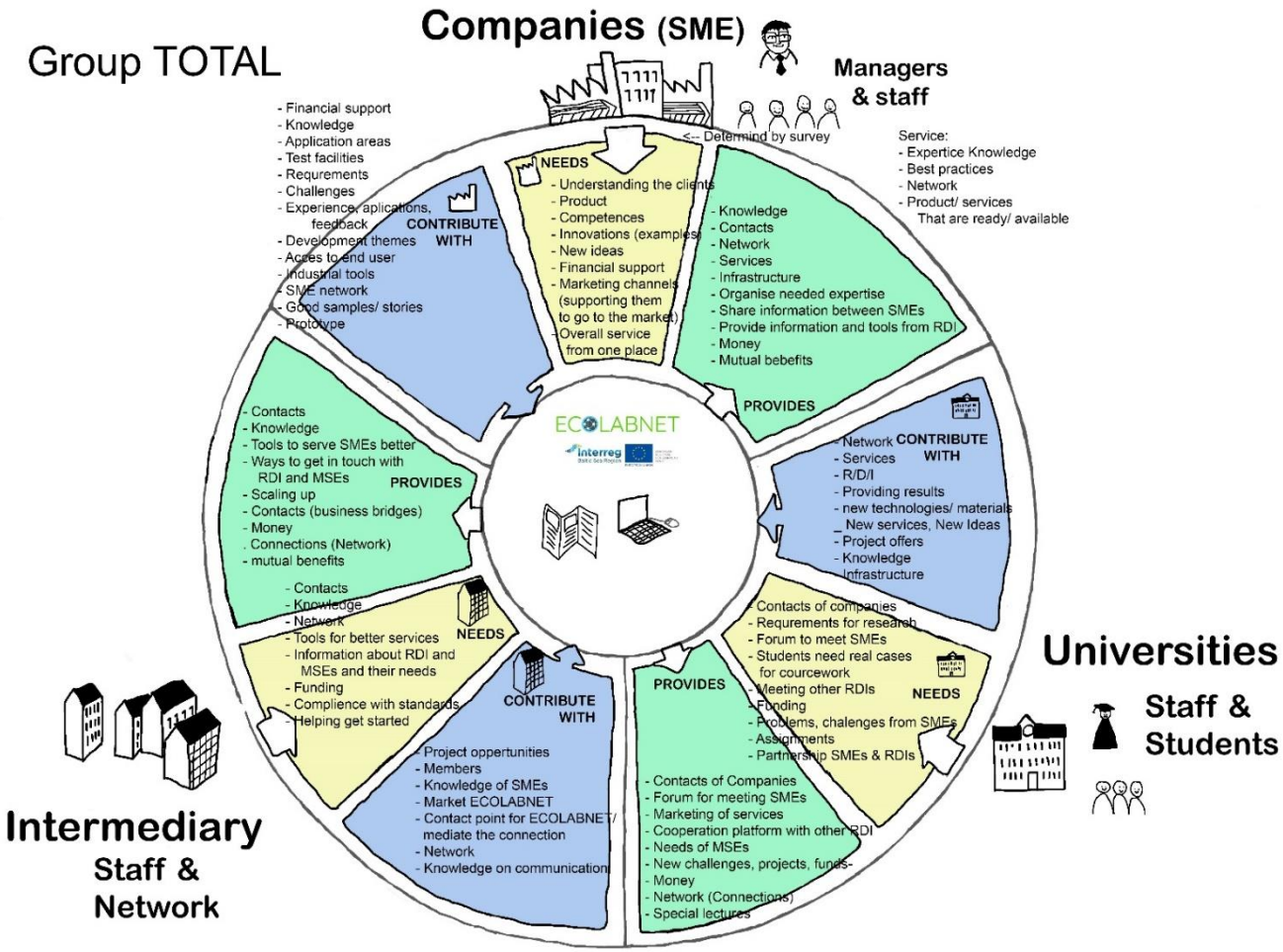

Illustration 7: The total circle for ECOLABNET input

When researching how an ECOLABNET External Collaboration Model should be presented, it became clear that there are different expectations for such a model. We chose to present our findings at the partner meeting in Poland in the fall of 2019. We carried out a workshop with an empty model of the bindings that exist between the actors of ECOLABNET. The partners were asked to fill out the model with their priorities and expectations to the relations in teams. This approach made it much more clear what expectations each partner had to the future collaboration in ECOLABNET. It also created some good discussions. The collected text input can be seen in illustration 7.
An outline begins to emerge. The creation of the ECOLABNET model for external collaboration will enter its next phase.

Development phase

Prioritising

The input to the circle was a lot of data from both survey on SME needs and other input from the research phase. The ECOLABNET partner meeting workshop in Poland gave us a big amount of input we needed to prioritize. Some elements all workshop groups agreed on, like the importance of shared knowledge and networking, and some elements there was a difference between the workshop input, that we decided to list all input and bring it to the partner meeting "Lithuania online" to help prioritize the input.

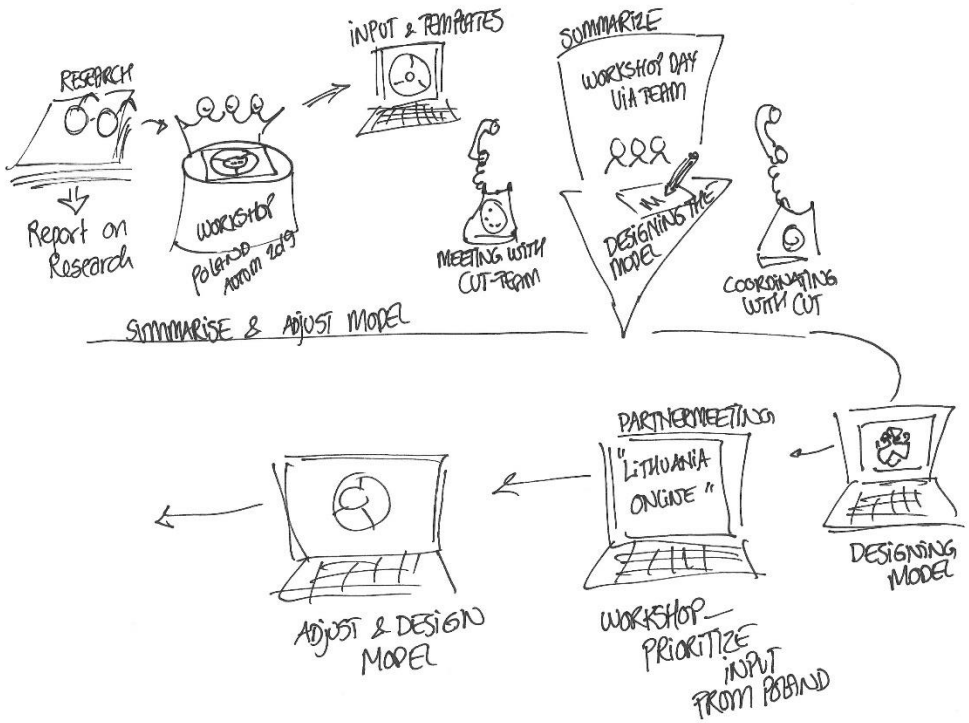

Illustration 8: Prioritizing between the workshops

The VIA team prepared the full list of input for SMEs, IOs, RDIs and expectations for ECOLABNET in templates, with a possibility to place the input under either priority 1 or priority 2.
At the Lithuania online partner meeting in April 2020, all partners participated in prioritizing the input form the workshop in Poland. See some examples in illustration 9. We again had to do it as a workshop in groups, due to the many participants at the meeting. The groups were again mixed.

Universities

Group number: 1 Group chairman: Jurand

Group member: Migle, Anders, Edvinas, Vaidas, Andrius and Jurand

Universities **Contribute with**	Universities **NEEDs**
Circle input: • Network • Services • R/D/I • Providing results • New technologies/ materials • New services, New ideas • Project offers • Knowledge • Infrastructure	Circle input: • Contacts to companies • Requrements for results • Forum to meet SMEs • Students need real cases for coursework • Meeting other RDIs • Funding • Problems, challenges from SMEs • Assignments • Partnership SMEs & RDIs
Priority 1: Facilities (services), Knowledge, New ideas, New technologies, R/D/I	Priority 1: Funding, Requrements for results, Meeting other RDIs, Contacts to companies,
Priority 2: Infrastructure, Project offers,	Priority 2: Partnership SMEs & RDIs, Students need real cases for coursework

Intermediary

Group number: 3 Group chaiman: Jolita

Group member:

Intermediary **Contribute with**	Intermediary **NEEDs**
Circle input: • Project opportunities • Members • Knowledge of SMEs • Market ECOLABNET • Contact point for ECOLABNET/ mediate the connection • Network • Knowledge on communication	Circle input: • Contacts • Knowledge • Network • Tools for better services • Information about RDI and MSEs and their needs • Funding • Compliance with standards • Helping get started •
Priority 1: Contact point for ECOLABNET/ mediate the connection	Priority 1: Information about RDI and MSEs and their needs
Priority 2: Knowledge of SMEs	Priority 2: Network of SMEs/Uni.

ECOLABNET

Group number: 2 Group chaiman:

Group member:

ECOLABNET **can provide...**		
To Companies/SMEs	To Universities	To Intermediaries
Circle input: • Knowledge • Contacts • Network • Money • Service • Infrastructure • Organise needed expertise • Share information between SMEs • Provide information and tools from RDIs • Mutual benefits	Circle input: • Contacts of Companies • Network (connections) • Money • Forum for meeting SMEs • Marketing services • Cooperation platform with other RDIs • Needs for SMEs • New challenges, projects, funds • Special lectures	Circle input: • Knowledge • Contacts (business bridges) • Network (Connections) • Money • Tools to serve SMEs better • Ways to get in touch with RDIs and SMEs • Scaling up • Mutual benefits
Priority 1: Contacts	Priority 1: Novel challenges from SMEs	Priority 1: Information
Priority 2: Knowledge & Expertise & infrastructures	Priority 2: Novel application area of SMEs	Priority 2: Network

Companies

Group number: 1 Group chaiman: Jurand

Group member: Migle, Anders, Edvinas, Vaidas, Andrius and Jurand

Companies **Contribute with**	Companies / SMEs **NEEDs**
Circle input: • Financial support • Knowledge • Application areas • Test facilities • Requirements • Challenges • Experience, applications, feedback • Development themes • Access to end user • Industrial tools • SME network • Good examples/ stories • Prototype	Circle input: • Understanding the clients • Product • Competences • Innovations (examples) • New ideas • Financial support • Marketing channels (supporting them to go to the market) • Overall service from one place
Priority 1: • Financial support. • Access to end user • Application areas, • Good examples/ stories • Industrial tools • Test facilities • SME network	Priority 1: • Financial support • Innovations (examples) • Marketing channels (supporting them to go to the market) • Product • Competences
Priority 2: • Knowledge • Experience, applications, feedback • Requirements • Challenges	Priority 2: • Overall service from one place • Prototype

Illustration 9: Templates for prioritizing input

After the Lithuania online workshop, the output from all groups was listed in new templates in the order of the amount of appearance in the prioritizing templates. The output can be seen in illustration 10.

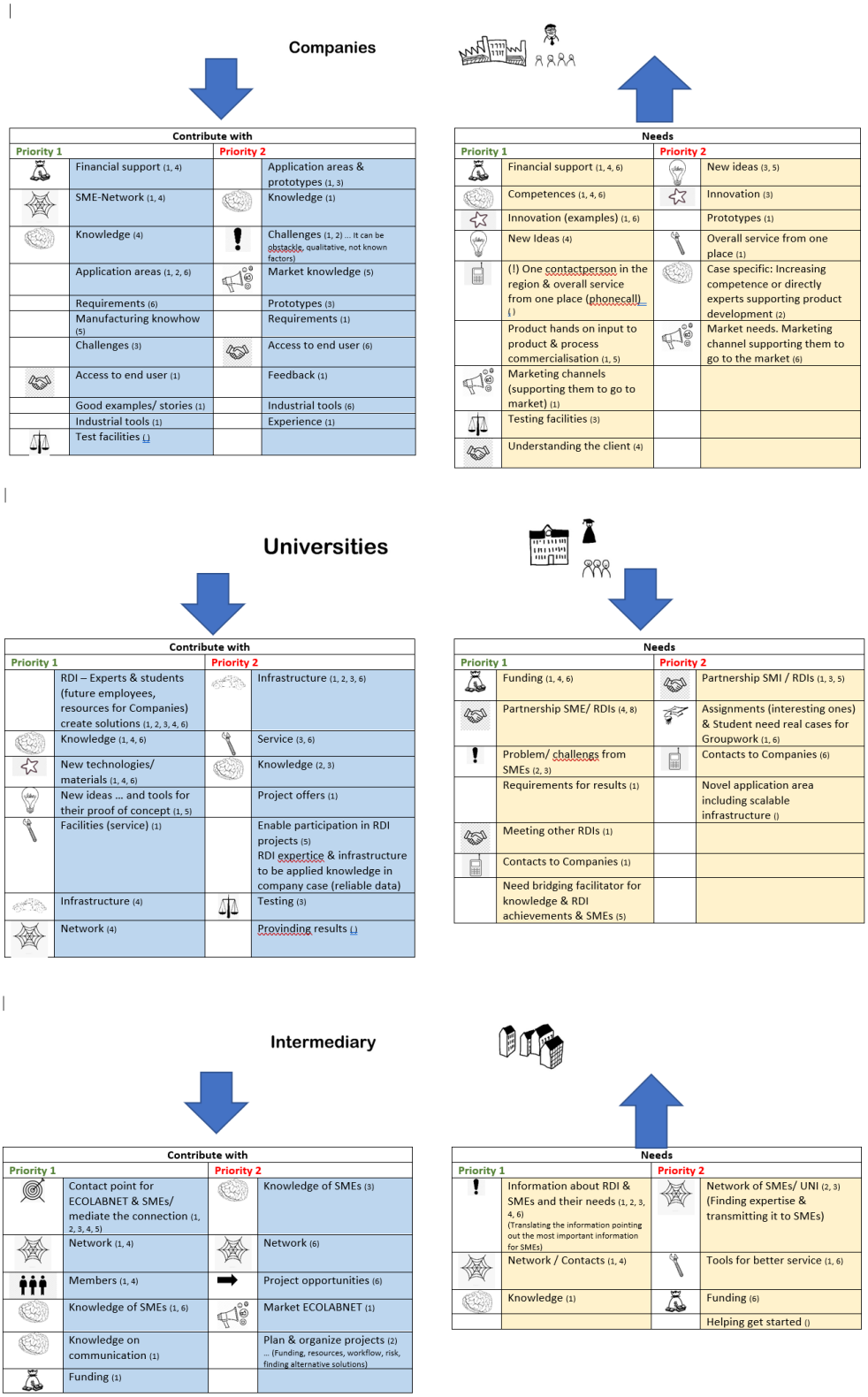

Illustration 10: Summarizing templates

The following template show the output for what ECOLABNET should provide

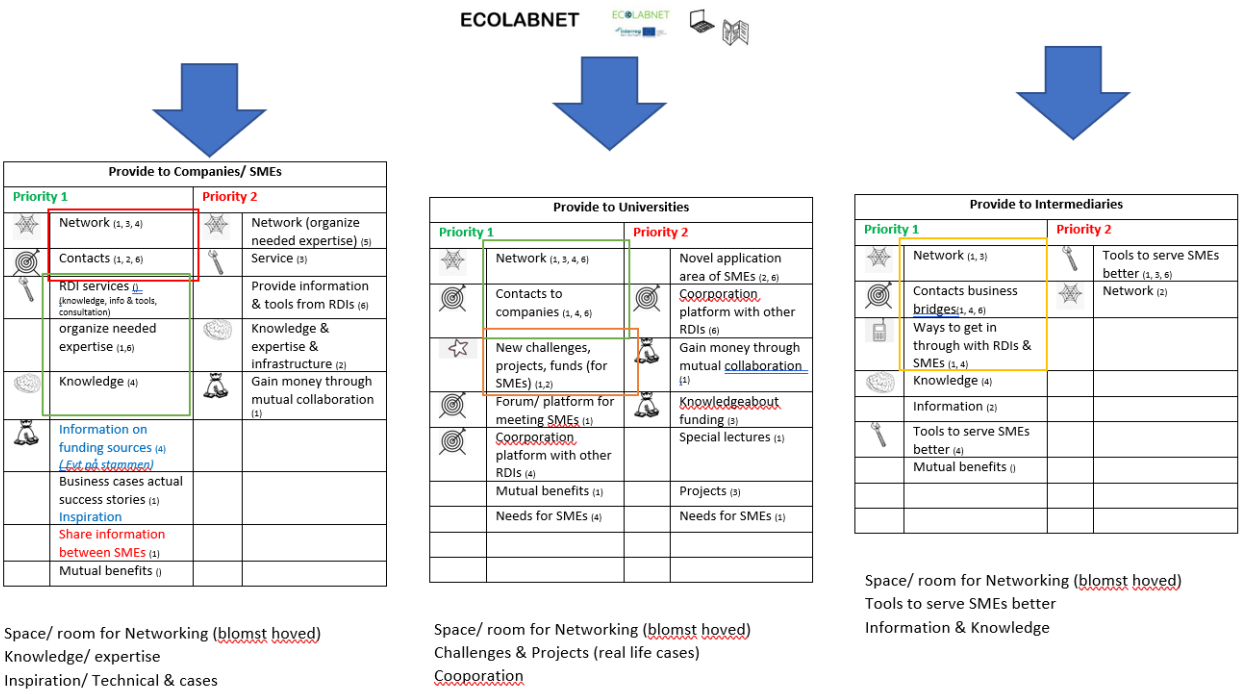

Illustration 11: Summarize template for ECOLABNET

An icon was added to the summarized templates to make it easier to compare the templates and evaluate the impact for the final model.

From wheel to propeller

Based on the outcome of the Lithuania online partner meeting, It was clear that the main focus should be on what ECOLABNET could and should provide, based on the SME needs and what IOs and RDIs can contribute with. That is where the propeller appeared.

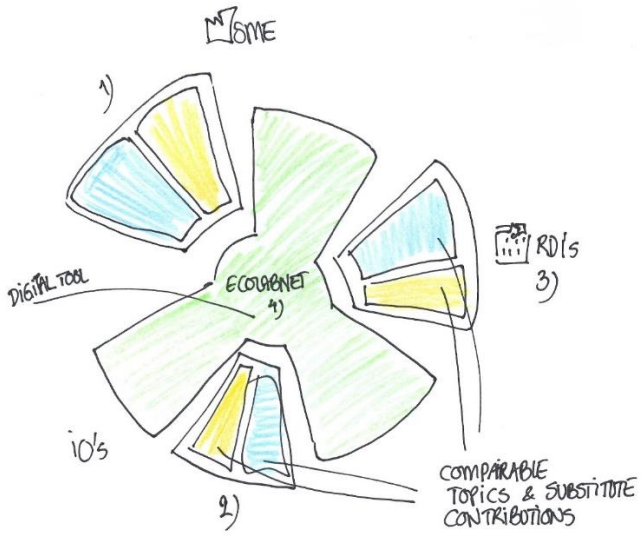

Illustration 12: Propeller appear

The develop phase of the model took a turn working with a variety of different illustrations of propellers that could illustrate the external collaboration between IOs, RDIs and SMEs in ECOLABNET. Some of the illustrations were quickly changed again, if they were too comparable with other symbols. The process was extensive, before it ended with the propeller. The idea with the propeller was presented at the Danish online meeting, and the approach with the propeller was approved by the partners.

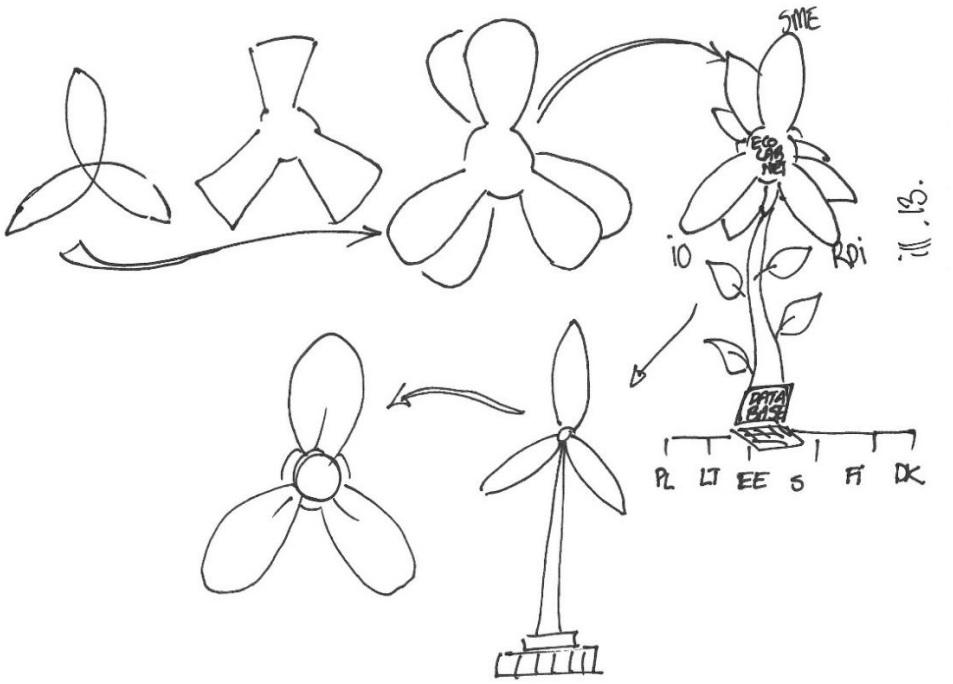

Illustration 13: Process of developing the propeller solution

The development of a model based on the propeller was then in action. In the beginning, there was a lot of text in the model to help explain the flow of competences for each of the partner groups. Too much text will also make the model complex, it is therefor a balance between enough information to explain the external collaboration and as little as possible to make it simple to understand.

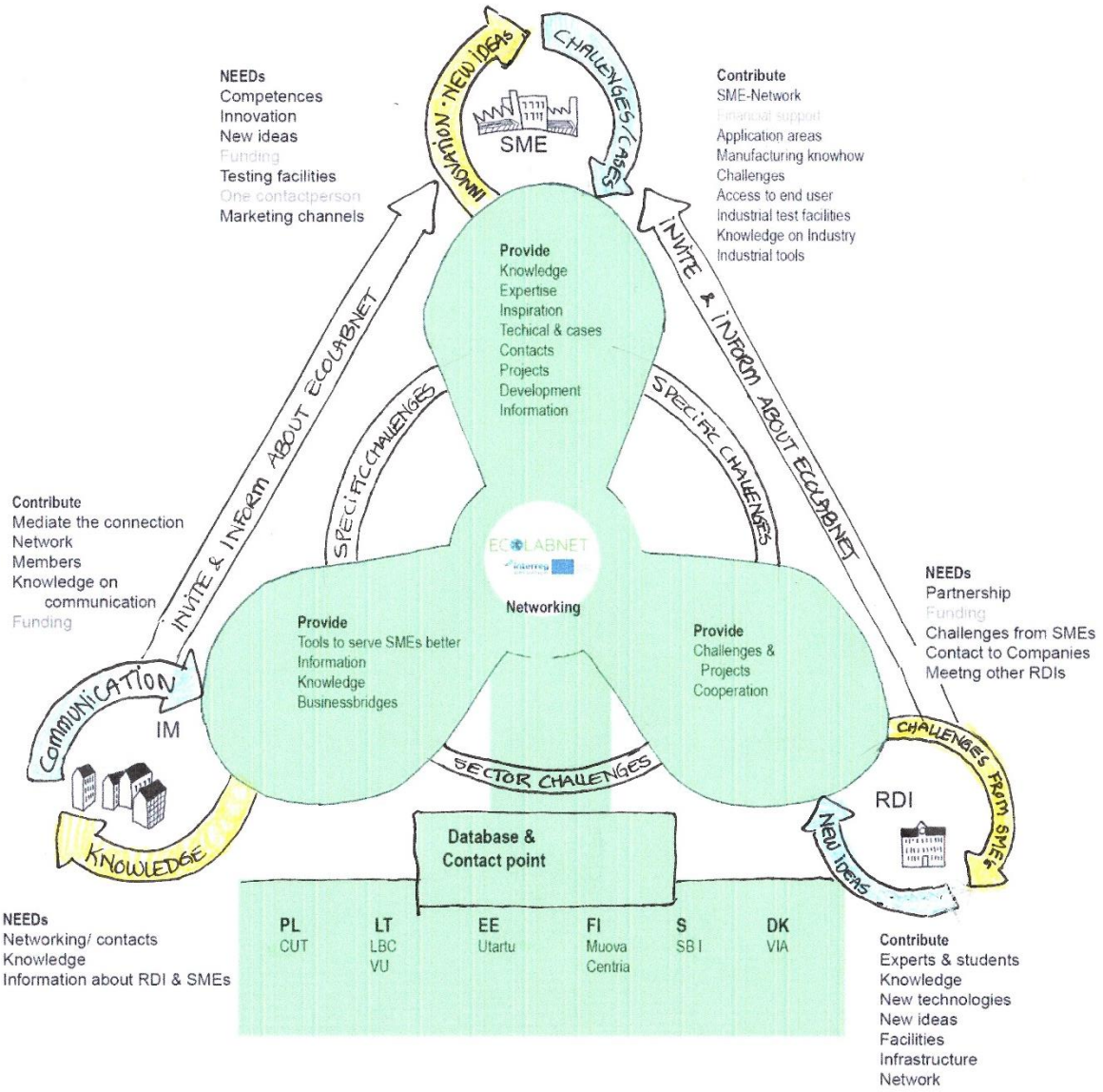

Illustration 14: Propeller with text

Final stage of the design

The next step of developing the model was the graphical design. There were still some details that should be settled. The graphical work was finalized by a new team member.

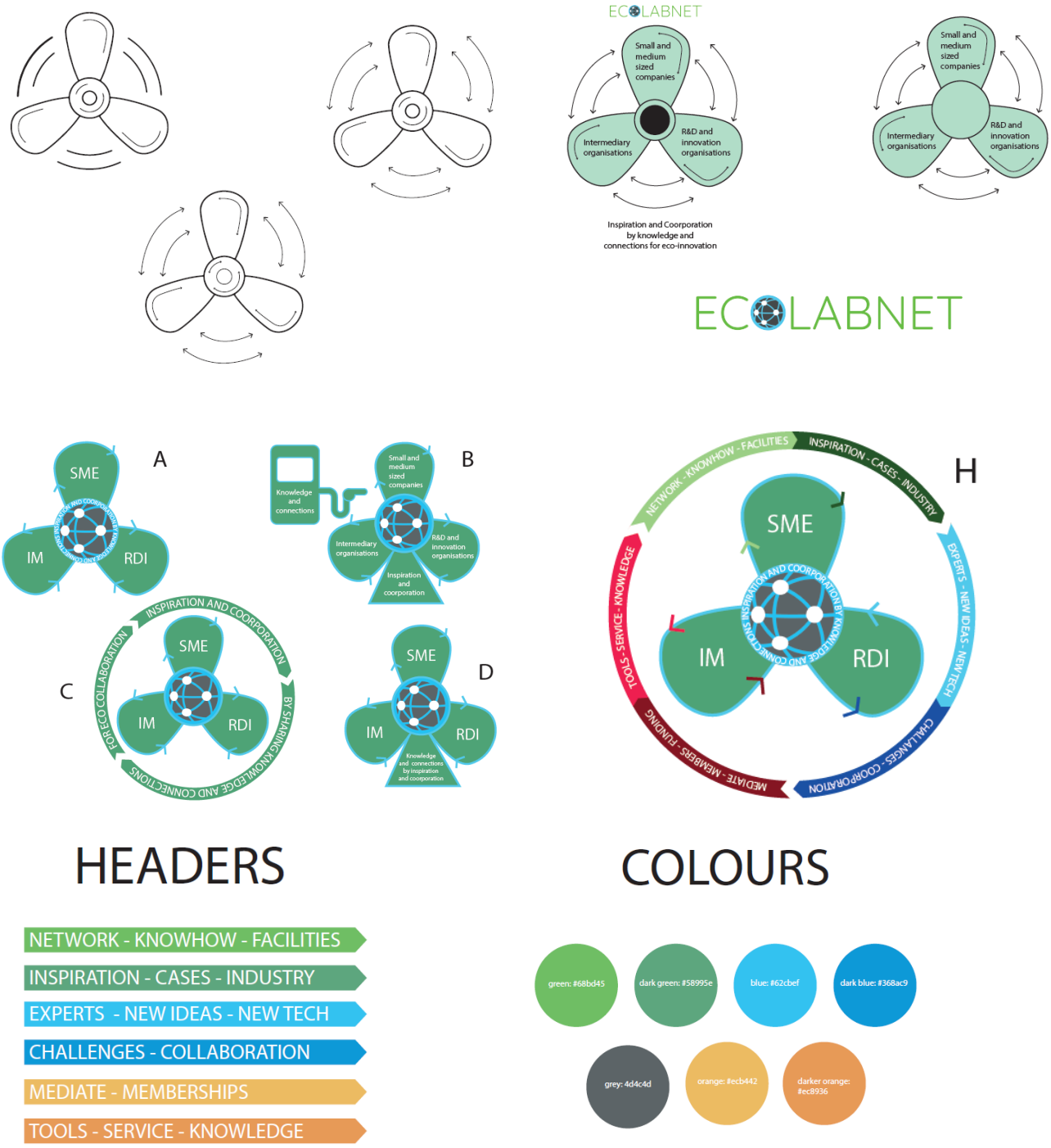

Illustration 15: Designs in the finalizing phase

The colors used for the model was verified to ECOLABNET graphic colors. The circle around the propeller explain the main extract of text form the earlier workshops. The finalizing of the model was presented at some online meetings to get approval of the appearance and text. Along with the graphical work, a text to explain the model in detail was written: "The External Collaboration Model - Introduction to the External Collaboration Model".

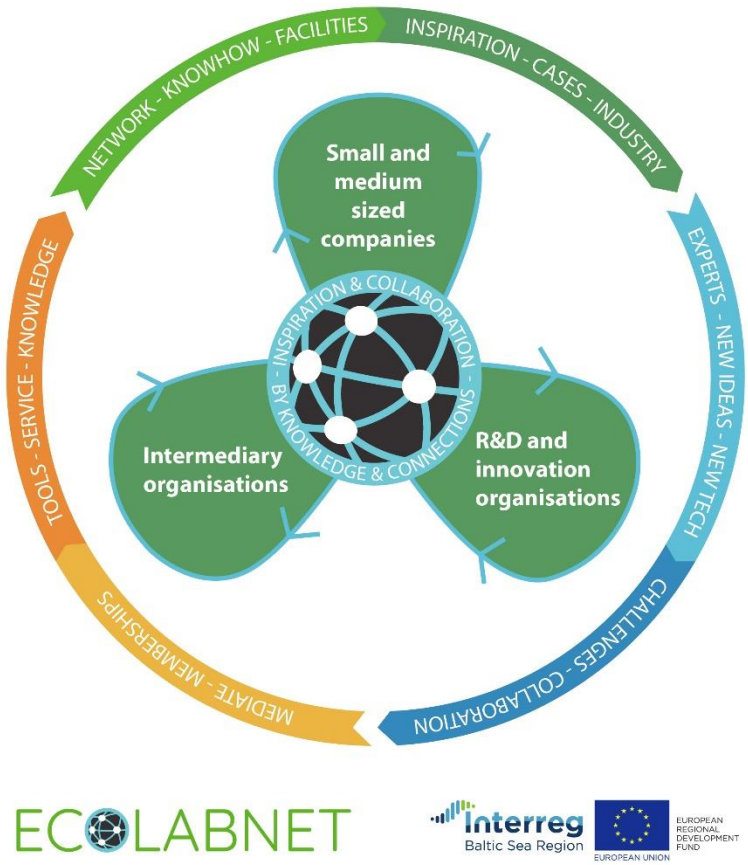

Illustration 16: Final model

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