Report of WP3.5 Marketing Design by Päivi Aro & Helena Ahola, OUAS

Baltic Sea Underground Innovation Network (BSUIN)

Interreg Baltic Sea Region
EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND
BSUIN

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CONTENTS

1 Introduction of WP3.5

This activity has utilized the preliminary findings and outputs of 3.1-3.4. WP3.2 has been previously reported in detail by the authors (attached in this report). In the previous activities the current business models of participating ULs have been described and a service concept for each UL has been created. The outputs for the ULs are the value propositions of improved services. Based on these service concepts of the ULs a joint service offering for the ULs network was created. Besides, new value propositions have been created for the joint service network. How do they match?

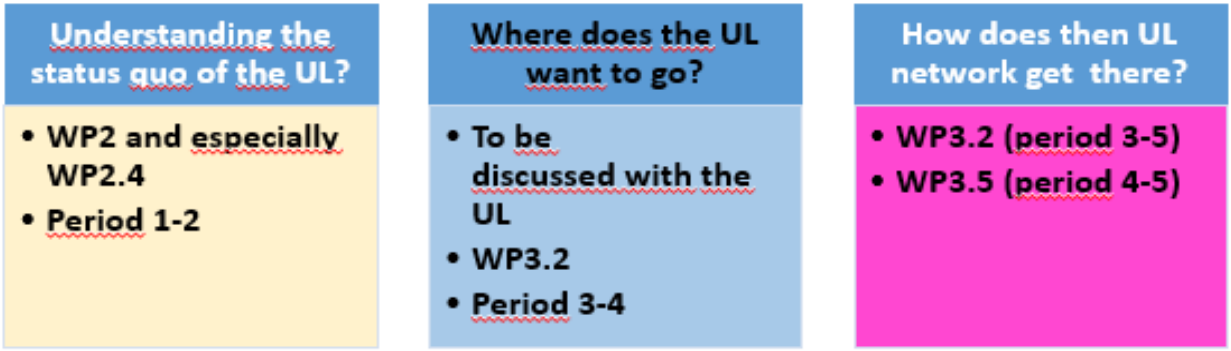

Figure 1. Service development process in the BSUIN project

In the first phase of WP3.5 customer needs and value propositions of ULs' products and services are more closely matched, fitted and fine-tuned. Searching for fit is the process of designing value propositions around products and services that meet the jobs, pains and gains that customers really care about. Three kinds of fit have been recognized (Osterwalder, Pigneur, Bernarda and Smith 2014): product-market fit, business model fit, problem-solution fit. The following questions arise: Are we addressing essential customer pains and gains? What kinds of choices need to be made regarding the service offering, relevant customer segments and their jobs, pains and gains?

The next phase of WP3.5 is to concretize and visualize the value of services to different stakeholders.
1. envisioning: using cues to make customers experience the service mentally,
2. association: linking an object, place or person with a service,
3. documentation: providing information about the performance of a service, its systematics and consumption,

4. representation: focusing on attributes (e.g. features) of the service. Besides showing the service offering life cycle, the aim of visualization is to concretize the services to be offered by showing e.g. a service performance and consumption episode.

The visualization of the fit between customer needs and the ULs' services is the starting point when planning marketing, marketing communication (e.g. exhibitions), marketing design and branding e.g. the name, logo, typography, visual identity associated with the new Baltic underground laboratory network. These elements help designing the website and social media.

The outputs of the activity are:

- value propositions for the ULs network which show(s) designed fits between products, services and customer profiles obtained through workshops.
- visualization of the service offering of ULs network in order to make it more tangible (e.g. poster, roll-up).

2 Theoretical background and the main concepts

Value proposition

A value proposition has a key role in business strategy, and it is considered a strategic imperative for companies. Thus, value proposition development is a critical strategic issue. Tokman and Beitelspracher (2011) argue that a competitive advantage in a service-based business depends on its ability to develop a value proposition focusing on the customer's value-creation needs. The authors have written about that on the BSUIN website in January 2020. See: http://bsuin.eu/2020/01/20/in-search-of-a-joint-service-offering-for-the-ul-network/

A company's value proposition is defined as the set of benefits or values it promises to deliver to consumers to satisfy their needs (Kotler & Armstrong, 2014). It is a strategic management's decision on what the company believes its customers value the most and what it is able to deliver that gives it competitive advantage (Rintamäki 2007). It consists of physical/technical enablers that create the conditions for the service experience and includes the functional and emotional benefits of a company's brand. (Sandström et al 2008).

Customer profile

In the workshop The Value Proposition Canvas is used. It is formed around two building blocks, customer profile and a company's value proposition. Customer Profile describes the gains, pains and customer jobs. Gains are the benefits which the customer expects and needs, what would delight customers and the things which may increase likelihood of adopting a value proposition. Pains are the negative experiences, emotions and risks that the customer experiences in the process of getting the job done. Customer jobs are the functional, social and emotional tasks customers are trying to perform, problems they are trying to solve and needs they wish to satisfy. A customer profile should be created for each customer segment, as each segment has distinct gains, pains and jobs. (Osterwalder, Pigneur, Bernarda and Smith 2014.)

Fit

Searching for fit is the process of designing value propositions around products and services that meet the jobs, pains and gains that customers really care about. Three kinds of fits have been recognized (Osterwalder, Pigneur, Bernarda and Smith 2014): product-market fit, business model fit, problem-solution fit. Customers expect and desire a lot from products and services, yet they also know they can't have it all. Customers also have a lot of pains. No organization can reasonably address all of them. Fit happens in three stages:

1-The first occurs when you identify relevant customer jobs, pains, and gains you believe you can address with your value proposition.

2-The second occurs when customers positively react to your value proposition and it gets traction in the market.

3-The third occurs when you find a business model that is scalable and profitable.

Visualization of the value offering

In visualization of the value offering the framework of Kindström, Kowalkowski & Nordin (2012) is utilized. It covers tangibilization strategy, visualization techniques, managerial aspects and key outcomes. They regard visualization strategies in the context of the service-based offering's life cycle.

It is very challenging to communicate and illustrate the value of the new offering to the customers and to convince them due to the intangibility of service performance. However, visualization enables firms to illustrate, show, demonstrate and communicate the value of their offerings, and involves utilizing various visualization strategies. There are three ways to bring up the values to customers: to list all potential benefits, to recognize favorable points-of-difference and to communicate those benefits that the customer really appreciates and needs (resonating focus). Simply listing all potential benefits is not sufficient when service content is increased and offerings are becoming more complex. Instead, firms need to align their communication with their customers' actual needs. This requires more and better customer knowledge, since the value proposition becomes more and more customized and includes a higher service content.

Four general visualization strategies have been identified:

1. Envisioning
    - Using vivid cues in order to persuade customers and make them experience the service mentally
2. Documentation
    - Proving relevant information about key attributes, features and benefits of the service
3. Association
    - Linking an object, place or person to the service
4. Representation
    - Focusing on core attributes that are direct or peripheral parts of the services, e.g. buildings, vans, employees

The stage model for service-based offering life cycle contains market sensing, development, sales and delivery. By taking the entire offering life cycle as its starting point, several visualization strategies are necessary, but also that the focus of visualization changes throughout the life cycle. It is not enough to rely on just one specific visualization strategy for successful service development, but several strategies should be utilized to maximize their chances of success.

3 Methods

The implementation of WP3.5 is based on service design and its tools.

Service design can be considered as a mindset, a process, a toolset, a cross-disciplinary language and a management approach. Service design has established itself as a practice that enables industries to design and deliver their services with a human-centred approach. Through its tools, service designers obtain contextual and cultural understanding which creates a backdrop for new service solutions, with improved user experience and customer satisfaction. (Stickdorn & Schneider 2011 & 2018)

The main principles of service design include the following (Stickdorn & Schneider 2018):

- *Human-centred*: the experience of all the people affected by the service is considered
- *Collaborative*: all relevant stakeholders should be included in the service design process
- *Iterative* means that service design is an exploratory, adaptive and experimental approach, iterating toward implementation
- *Sequencing:* the service should be visualised and orchestrated as a sequence of interrelated actions
- *Real*: needs should be researched in reality, ideas prototyped in reality and intangible values should be evidenced in terms of physical artefacts or digital reality
- *Holistic* in nature: the entire environment of a service should be considered.

In the previous WP3.2 the business models of the underground spaces and labs (ULs) have been described using Service Design methods. (Aro, Ahola & Vuorela 2019.) Service design tools were also used in these online workshops. Workshop agendas with materials were sent to the partners a week before the meetings via the Skype. In the first workshop value proposition canvas was used to find out the fit (below Figure 2).

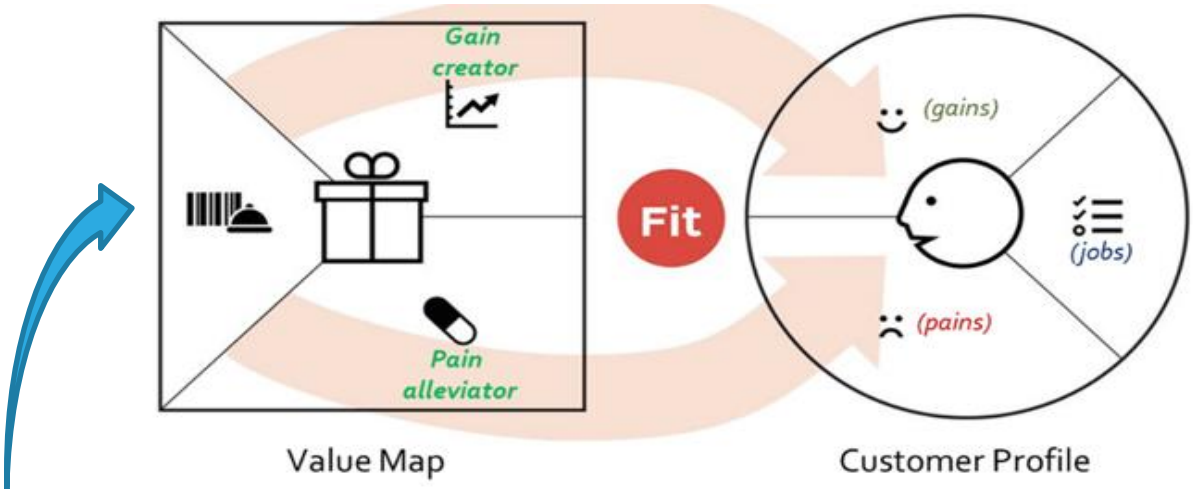

Figure 2. The Fit

Joint Service offering developed for the BSUIN network (Figure 4) was used to describe the service of the network (on the left, **the red arrow**).

Essential services	Additional services
Research infra Underground infra Site characterization and knowledge Wide expertise for underground projects	Underground logistics Co-ordination of research projects Industry specific machinery & equipment Support for R&D projects (e.g. funding and innovation) International co-operation Extensive networks References of successful projects Demonstrations Underground and industrial tours

Figure 3. Service offering

For data visualization and analysis a "research wall" -method was used. A research wall gives an overview of the data and the mix of research methods and data types. Building a research wall means synthesizing and analyzing research data through a visual arrangement of research data on a wall. It consists of many types of data on these walls (quotes, photos, screenshots of websites or videos, statistics, artifacts, etc.). This enables identifying patterns within the data, and also provides a place to share the research with others as it develops. The material on the

wall can be clustered according to specific topics, like certain customer segments, common problems, steps along the journey map, etc. The various patterns identified can then be further explored with tools like personas, journey maps, key insights etc. These elements also become part of the research wall. (Stickdorn, Hormess, Lawrence & Schneider 2018.)

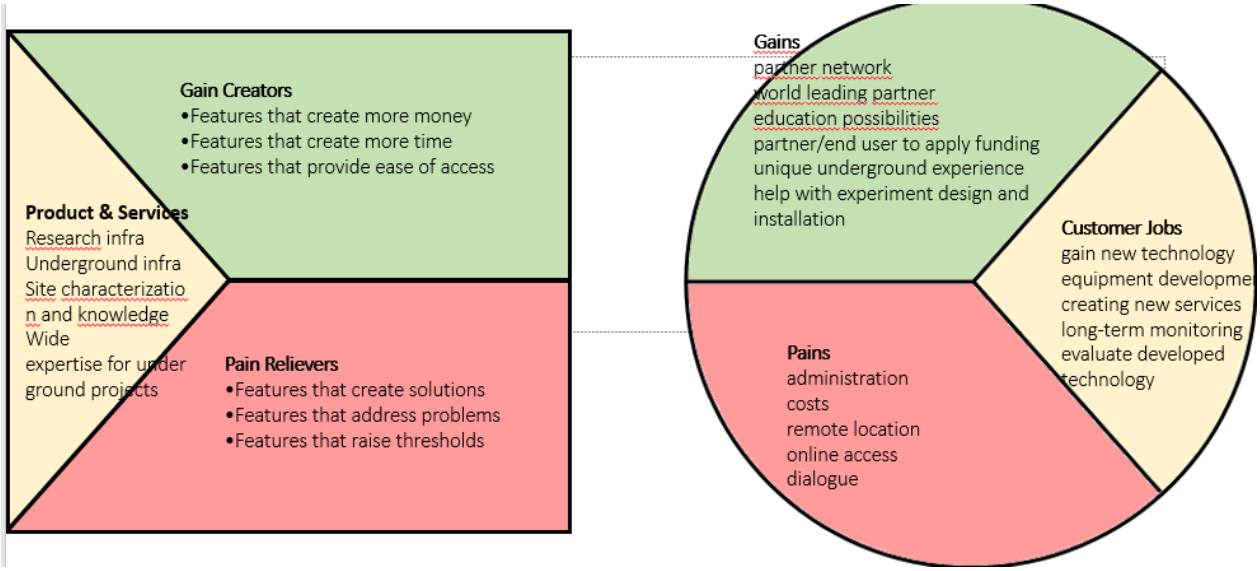

Figure 4. In search of gain creators and pain relievers in the workshop

Besides the Fit as a main focus, there were three other issues to be discussed in the workshop:

- Are we addressing essential customer pains and gains?
- UL and ULs network -the concepts
- What are the most important competitive advantages of the UL network?

To analyse the value proposition for the two case examples and the network the value proposition tool was used (Figure below).

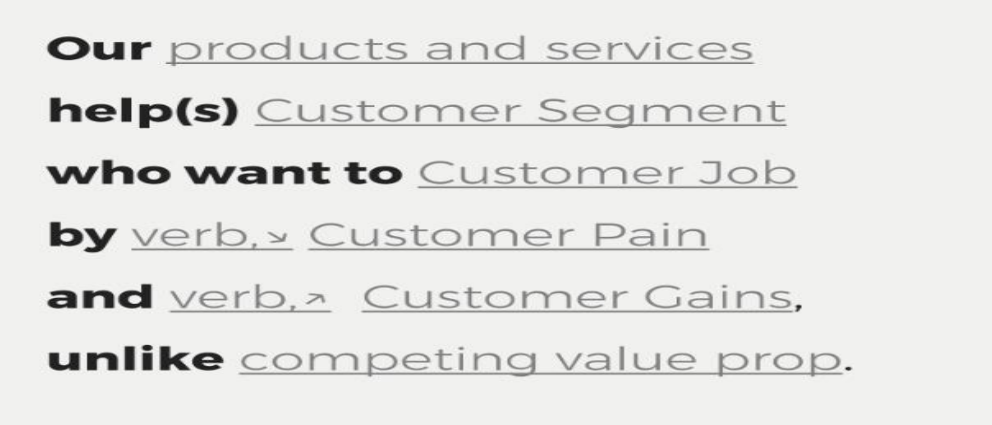

Figure 5. Value proposition tool (https://assets.strategyzer.com/assets/resources/ad-lib-value-proposition-template.pdf)

4 Workshop 1: Designing the fit

In order to search for fit between the services of the ULs and the needs of the customers an online workshop was arranged according to the principles of service design. All ULs and WP3 partners were invited.

4.1 Summary of the workshop 1 and the results

Table 1. Summary of the workshop

Name & Date	Number of participants	Focus of the workshop	Tools used in the workshop	Results
Service Design: Designing the Fit Part 1: with all partners 6.2.2020	Five representatives of partners, three from OUAS	Are we addressing the essential customer pains and gains? (The aim is to match, fit and fine-tune customer needs and value propositions of the ULs' products and services.)	Service Design, Value proposition canvas, Value Proposition tool, Group discussion, Research wall.	The FIT: Gain creators and Pain relievers Value propositions for the ULs and the network

In this online workshop two examples of value proposition canvases completed earlier in SD creation workshops for the ULs were utilized. Two Customer Segment Profiles were chosen: a business customer and a research institute. These were real customers of the ULs. We discussed the pain relievers and gain creators and summarized the following concerning the fit:

Gain creators: Describe how the products and services create customer gains.

1. Support the customer in planning R&D underground
2. Offer stable underground conditions
3. Support the customer in development of equipment by providing underground infrastructure and finding competent workforce and expertise
4. Support the customer in R&D application preparation

Painkillers: ”Try to address customer pains every time if possible”

1. Contact persons of each UL
2. Clear responsibilities (who, what, where, when...)
3. Risk management
4. Experiment coordination
5. Operational language defined (German, Swedish, English)
6. Help in finding suitable UL for the customer needs
7. Proper planning of the project
8. Versatile expertise of the network

In this way Product-market fit, and Problem-solution fit were validated. The search for business model fit requires more work on the fit to make sure that more revenues with the value proposition can be generated compared to costs incured.

The roles of UL and ULs network (will be EUL)

The roles of a single UL and the ULs network should be clear for all stakeholders. ULs are independent members of the EUL and provide the services for their customers. The EUL offers information of the ULs, guidance to use the underground services, and supports in getting new projects for the ULs. EUL can be seen as an umbrella.

The most important competitive advantages of the UL network

The most important competitive advantages of the UL network are the following:

- An established, international, non-profit network of ULs
- Established network of scientific underground research
- Provide and share information
- Contacts database of the ULs in Europe
- Wide expertise of underground research
- Guide and help potential customers to find a suitable UL
- Helps to link the customer and the UL with national facility
- Unique R&D environment
- Establish (new) underground projects

Generic value propositions

Based on the data analysis generic value propositions for the two examples (1 & 2) and the ULs network (3) were developed as follows:

1. Generic Value Proposition of the ULs (example 1: geo-measurement company)

The UL's R&D&I service helps a company that wants to test equipment in real environment **by** offering a competent and committed expert to plan and coordinate the test process in particular underground lab in cooperation with specific workforce and expertise **and** support the customers' R&D&I by offering added value with local and international networks for enhancing the success of the project (unlike UL outside the network).

2. Generic Value Proposition of the ULs (example 2: research institute)

Underground research infrastructure of the UL **helps** a research institute who want to conduct research in order to bring value to their industrial customers **by** using the resources of ULs cost effectively **and** offers stable underground conditions and the support of UL experts and a wide variety of services (unlike UL outside the network).

3. Value Proposition of the ULs network

Multiple underground & research infrastructure of qualified ULs network with extensive database and unique profiles **helps** e.g. geo-measurement or underground construction companies who want to conduct underground development or technical development in real environment cost effectively in a service-oriented way **by** finding the characterized, safe UL and scientific experts, **and** supporting the customer in planning and implementing customized R&D&I (unlike a single UL or other European non-service-oriented ULs).

4.2 Conclusions and recommendations

Each UL should **specify** the generic service offering (essential and extra services): Research infra, underground infra, site characterization and knowledge and wide expertise for underground projects. What are the additional services of the UL? Each UL is unique.

--> unique business model and value proposition for different customer segments

--> more examples of value propositions are needed (like examples 1 and 2 with real references)

The **network of ULs** adds value to each UL. This also helps the network of ULs (EUL) to recruit members.

Elements of value could be further elaborated (why would a customer buy a service via ULs network instead of someone else). What attributes of the services create **functional value**, e.g. saves money, reduces effort, risks and costs, avoid hassles, provide quality and variety? What attributes of the services create **emotional value**, e.g. nice to work in a network with experts that are well known professionals. We can learn from the customer and tailor the value proposition to changing needs. Understanding the customer is a prerequisite of a good value proposition.

5 Workshop 2: Visualization

In order to visualize the service offering and the value proposition for the networks of ULs, an interactive workshop was arranged according to the principles of service design. The participants of the workshop have been creating the service offering and the value proposition in the previous phase.

5.1 Summary of the workshops and the results

Table 2. Summary of the workshop 2

Name & Date	Number of participants	Focus/question for the workshop	Tools used in the workshop	Results
Visualization workshop 7.4.2020	8 + 2 facilitators from OUAS	How to visualize the service offering and the value proposition for the network of ULs	Pre-assignment Padlets Interactive discussion	Ideas how to visualize the service offering and the value proposition for the network of ULs by using different strategies and techniques in different customer life cycles

Pre-assignment

In order to orientate to the topic of the workshop, the participants were given a pre-assignment: *How do our ULs visualize and concretize their services today? Familiarize yourself with their websites and list the visualization techniques used*. The article by Kindström, Kowalkowski & Nordin was recommended to be read in advance.

Padlets (www.padlet.com)

In order to generate ideas for the visualization of the service offering and value proposition for the network of ULs, four padlets were used.

1. Your ideas for visualizing essential services?
2. Your ideas for visualizing additional services?
3. How to show and visualize the promises of the value proposition?
4. What visualization techniques can be used in different stages of the service offering life cycle?

The outcomes of the padlets are shown below (Figures 6, 7, 8 and 9):

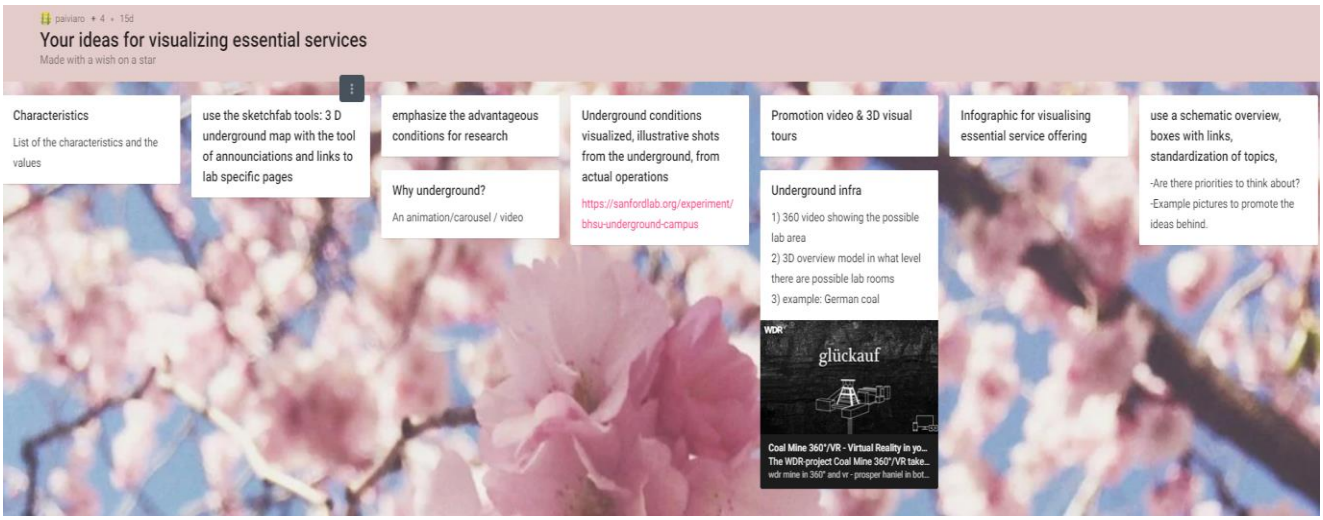

Figure 6. Ideas for visualizing essential services

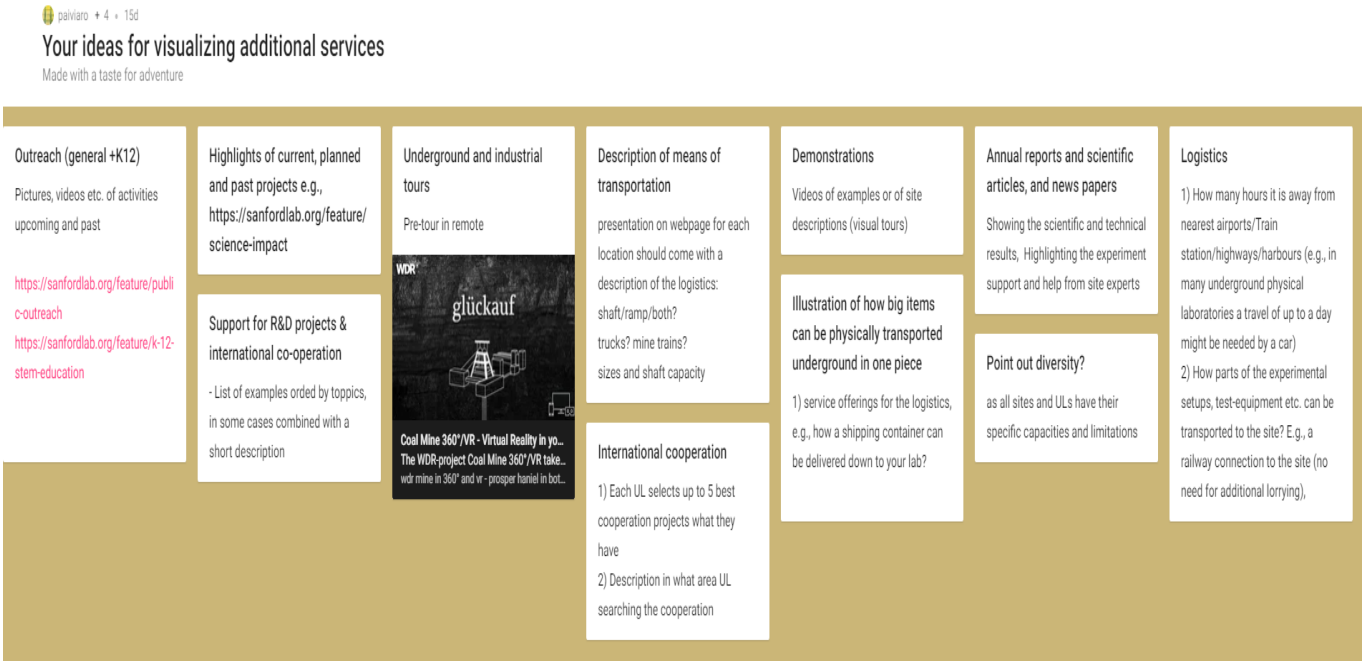

Figure 7. Ideas for visualizing additional services

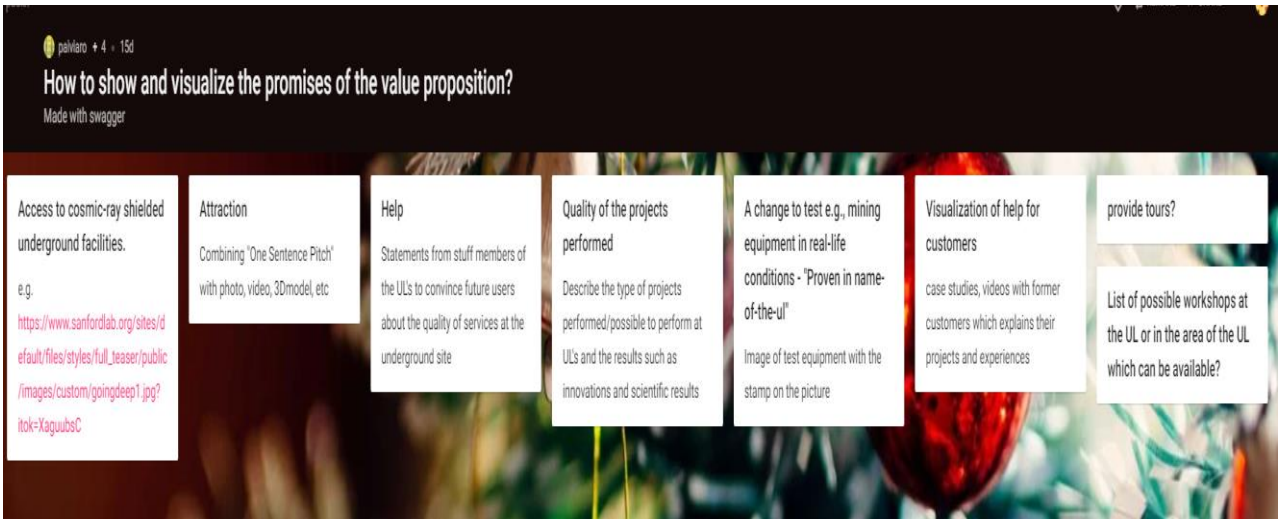

Figure 8. Ideas for visualizing the service offering

Figure 9. Ideas for visualizing the different stages of the customer life cycle

The results of the workshop are classified and some examples are mentioned below (Tables 3, 4, 5 and 6). The conclusions and recommendations are presented in chapter 5.2.

Table 3. Essential services

Strategy	**Examples from the workshop**
Envisioning	Animations Videos Carousel 3D Example pictures
Documentation	Listing characteristics Providing relevant links Emphazing key attributes Infographic
Association	
Physical representation	Illustrative shots from the underground and from actual operations

In WP3.2 the essential services were jointly decided the following:

- Research infra
- Underground infra
- Site characterization and knowledge
- Wide expertise for underground projects

All four essential services should be visualized. Documentation is a central visualization strategy, but the other visualization strategies are needed to replenish. It is important to think the visualization from customer's point of view, since the customer needs to be convinced. Good professional photos are needed. Short stories also help to convince the customer. It is challenging to think about how to visualize wide expertise. It is recommended to benchmark, how the competitors visualize their services. Site characterization and knowledge is an important competitive advantage for the network of ULs.

Table 4. Additional services

Strategy	**Examples from the workshop**
Envisioning	Highlight current or past projects Tours Demonstrations Illustrations e.g. the size of items that can be transported underground
Documentation	Listing characteristics Providing relevant links Emphazing key attributes Infographic Annual reports Scienticif articles External & internal logistics References
Association	
Physical representation	Illustrative shots from the underground from actual operations

In WP3.2 the additional services were jointly decided the following:

- Underground logistics
- Co-ordination of research projects
- Industry specific machinery & equipment
- Support for R&D projects (e.g. funding and innovation)
- International co-operation
- Extensive networks
- References of successful projects
- Demonstrations
- Underground and industrial tours

The participants had a lot of ideas to visualize the additional services, and they seem to be "easier" to visualize, because they are more concrete than the four essential services.

Table 5. Value proposition

Strategy	**Examples from the workshop**
Envisioning	Videos Tours
Documentation	List of project and workshops
Association	Statements from staff Staff with underground machinery
Physical representation	Customers telling about their experiences

The value proposition is described at the beginning of the chapter 3 as follow:

Multiple underground & research infrastructure of qualified ULs network with extensive database and unique profiles **helps** e.g. geo-measurement or underground construction companies who want to conduct underground development or technical development in real environment cost effectively in a service-oriented way
by finding the characterized, safe UL and scientific experts,
and supporting the customer in planning and implementing customized R&D&I
(unlike a single UL or other European non-service-oriented ULs).

For the workshop some words of the value proposition were emphasized (above red) and the participants were asked to pay attention especially to them. They found examples for every visualization strategy. Because the service offering and value proposition are married together, the visualization examples are naturally parallel.

Table 6. Service-based offering life cycle

Stage	Examples from the workshop
Market sensing – A continuous process taking place within the firm and in dialogue with customers	Roadshow Customer information about the routines of ULs Identifying reference customers Conferences & expos
Development – Development requires the involvement of customers and several functions, e.g. Idea generation, concept development and pilot study	Flow-charts Customer stories
Sales – front-line employees must have sufficient knowledge to sell the service convincingly	Clear schedules and pricelists
Delivery – Services are created interactively with the customer during the delivery process and are often highly localized	Safety (safety gear, happy face) Success stories

The participants gave ideas to every stage. Documentation and envisioning strategies are recommended to arouse customer interest and to give the customer decision support to buy, e.g. the customer may need fact and arguments, because he must sell the idea in his organization to other decision makers. In-depth case studies from reference customers are needed in all stages. The sales stage needs more attention.

5.2 Conclusions and recommendations

Engaged customers can play an important role when creating new services and products. The core product / service is the main focus, but by showing how the service components interact with the core product / service (for example, via a video or a virtual simulation) customers understand the intangible service value if associated with tangible aspects. Service providers need to use a wider array of visualization strategies and techniques. Firms with long product lifecycles and long-term contracts, in particular, can build relationships and trust with their customers during the delivery stage so as to facilitate future renegotiations and secure sales.

Value proposition is more abstract than the service offering, but they go together and complement each other. Value proposition can be systematically gone through and every meaningful word of it can be visualized somehow.

It is recommended to pitch the value proposition: what do you offer for customers? What does network of ULs have that its' competitors do not have. That should be emphasized, e.g. wide characterization. Simply listing all potential benefits is not sufficient when service content is being increased and offerings are becoming more complex. Instead, firms need to align their communication with their customers' actual needs. This requires more and better customer knowledge, since the value proposition becomes more and more customized and includes a higher service content.

In scientific context the documentation is the most important visualization strategy, e.g. references and cases. But besides documentation, the other visualization strategies should be taken into account, e.g. Interviews, customers' stories, success stories, videos, animations. Good professional photos are needed. When creating the strategy for the communication the visualization strategies should kept in mind.

6 Discussion

It is important to know the vision, strategy and **the business model** of the network to be able to cooperate successfully. Cooperation and partnership in the network can be related e. g. to marketing. The purpose of the network-based service concept is to create a joint understanding of the content and the benefits for the customers. The role of the service integrator (in this case EUL) depends on whether the service offering consists of the existing services or will there be developed a totally new service. Developing the service network requires working on many issues, e. g. strategic, economic, common customer relationships, confidence and flow of information. (See more Valkokari, Valjakka, Hakanen, Kupi, & Kaarela 2014.)

It is important to decide how partners positioned around a business model can be organized into a **network-based business model** that generates additional value for the core business model and for both the partners and the customers. One way of visualizing a business model is through the Business Model Canvas. the Business Model Canvas framework has limitations in cases where several companies and individuals form a network in a new business model. Is it yet time to move towards a platform-based business model for the BSUIN network? This is a business model where the product becomes a platform for new business models and at the same time provides value for existing customers. The development of new interdisciplinary networks contains a number of barriers and challenges going forward: It may require an entirely new knowledge set to cope with the 'multiple collaboration' and 'multi-business model' economy. It is not enough to be able to get the ideas and concepts for new business models 'merged' together, but it is also necessary to act on them, commercialize them quickly to different markets. The success in this particular network-based business model lies in the ability to create multiple collaboration. (See more Lund & Nielsen 2014.)

When developing **value propositions** for the network and the individual Uls the following viewpoints are important (Heikka & Nätti, 2018). The nature and composition of value proposition changes as a relationship evolves from conducting a single project toward a more established customer relationship. Individual experts possess a crucial role in that development. Although emotional aspects of value propositions are becoming more important as relationship develops, economic value is still important e.g. constant savings and a competitive price. They are seen as a natural consequence of functioning collaboration, intertwined with functional value components. Understanding the customer's unique context is important, both in early and later stages of the relationship. However, in new relationships project focused, short-term needs and demands are emphasized.

The network and the Uls need **a customer relationship management (CRM) system** to increase customer understanding and engagement. CRM means a specific technology and a holistic

approach to managing customer relationships by developing profitable, long-term relationships with key customers, customer segments and other key stakeholders. With the help of CRM relevant and timely content can be delivered and shared to engage customers at the appropriate point in their buying consideration processes. (Lipiäinen 2015.)

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