

Fruitful friction as a strategy to scale social innovations.

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Master thesis by

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Acknowledgement

This project marks the end of my Strategic Product Design master at the TU Delft but also of my time living in the Netherlands. Almost three years ago I started my master with the hope to get inspired, discover new design fields and further develop myself as a designer. I found my passion in design for society and value creation, dealing with wicked problems and getting immersed in a complex and messy but beautiful world, to find solutions that fulfil peoples needs but also serve society. With this graduation project, I found my way to help social innovators, thanks to the people supporting me in this journey.

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Executive Summary

New approaches to overcome complex societal problems of today are the need of the hour, especially to enable the transition to a sustainable future (Concilio & Tosoni, 2019). Here, social innovations present new ways to tackle global problems on a local scale; that when put together, can create a transformation on a systemic level while shaping societal beliefs, routines and behaviours. Scaling these social innovations is important to enable the requisite large-scale transformations. This project builds on a specific scaling strategy that aims to shift cultural values, mindsets and beliefs—namely, scaling deep. Given that scaling deep is an abstract and intangible concept, the project aims to develop an actionable strategy that supports social innovators in their scaling journey. The key research question being: How can design be used to transform the abstract and theoretical concept of scaling deep into something more tangible and implementable in order to make it usable for social innovations?

In the first phase of the project and this report, the phenomenon of scaling deep is explored from a theoretical and practical perspective. Qualitative research (carried out by using a research through design approach) reveals that engaging new stakeholders is one of the biggest hurdles for social innovators wanting to scale their innovation into a new context. Here, scaling deep is a means to overcome this hurdle.

Literature review highlights 'common ground' and 'community building' as two key conditions for social innovators to achieve impact at a larger scale (Yee &

White, 2016; Beers et al., 2006). However, at the individual or micro level, a change in mindsets (and frames) is necessary which starts with the awareness and articulation about these implicit concepts (Gupta & Govindarajan, 2002; Buchanan & Kern, 2017; Hay et al., 2007; Dorst 2011).

Building upon these insights, scaling deep is further defined as an internal transformation process as well as a social process that focuses on alignment rather than forcing perspectives onto someone. In addition, friction, in the sense of realising conflicting frames, is seen as an enabler for change. This phenomenon is called fruitful friction. Here, friction is the notion of becoming aware of your implicit frame and realising the difference to other peoples' frames, which is seen as a first step to create openness for change. These characteristics are captured in a conceptual framework, 'Fruitful friction towards common ground', in order to use fruitful friction as a strategy to scale deep. The framework proposes to deliberately trigger friction fruitfully as a lever for change to enable the emergence of common ground and allow social innovators to scale deep.

In the second and third phase of the project and last part of this report, the conceptual framework is translated into a design toolkit 'Are we on the same page?', making the strategy of scaling deep actionable. It triggers people to express their tacit perspective (frames) which facilitates the emergence and capturing of common ground. 'Are we on the same page?' is a process enabling toolkit that helps social innovators to conduct an online workshop using fruitful friction to reach a shared understanding with new stakeholders.

In sum, this thesis unveils the potential of fruitful friction as a strategy to scale deep, allowing social innovators and their stakeholders to reach a common ground. The framework makes the abstract and theoretical concept of scaling deep more tangible; while the toolkit, helps social innovators to practically implement scaling deep into their projects.

“There’s nothing physical or expensive or even slow in the process of paradigm change. In a single individual it can happen in a millisecond. All it takes is a click in the mind, a falling of scales from the eyes, a new way of seeing.” - Donella Meadows

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01

INTRODUCING

1.1

PROJECT OUTLINE

In this chapter I will introduce the focus of this graduation project, present the research questions and my collaboration partners.

1.1.1 Social innovations in the urban context

The world is getting more complex and so do the challenges (political, social, economic and environmental) societies are facing. These problems are often referred to as "wicked" problem (Rittel and Webber, 1973) because of their diffuse and interconnected nature. The complexity and interdependency of these problems make them almost impossible to solve. By finding a solution for one part of the problem new problems may occur or cause troubles on a different end. In addition, there are many different paths a wicked problem can be tackled which makes them hard to approach (Sanders & Stappers, 2013). Global trends like urbanisation or globalisation are possible causes for worldwide environmental issues like climate change, the loss of natural resources and biodiversity as well as societal problems like growing social inequality and poverty. The COVID pandemic shows how important collective actions and societal ownership are to solve today's most pressing problems.

These global challenges cannot be tackled by individual countries or states alone but require a societal transformation at scale. In addition, these wicked problems cannot be solved by creating complex solutions

(Manzini, 2015). One approach outlined by Manzini (2015) to address this complexity is to accumulate small initiatives and a long-term vision of a sustainable future. Social innovations present new ways to tackle global problems on a local scale, that when put together, can create a transformation on a systemic level and change societal beliefs towards a sustainable future. Innovations need to scale their innovation to achieve impact on a system level (Murray et al., 2010). Urban environments play a special role in the context of social innovations, they are their nests and testbeds from which innovation towards scale can start.

Designers help to tackle complex societal problems by supporting social innovations, governments and organisations in their way towards a sustainable future. The role that design is taking in society and the value that design can bring to society is increasing (Dorst, 2015). Design actions and the capacity of designers to identify underlying problems, create value and new meanings are more and more recognised. As Concilio and Tosoni, (2019) state has design developed into a discipline that is seen as a "key approach to embedding innovation in complex socio-technical contexts". Achieving

change at a system level is a complex process. Donella Meadows presents twelve leverage point to intervene in a system (2015). She structures them according to their effectiveness as can be seen in Figure 1. The leverage points with a high transformative impact are the ones that tackle underlying structures like mindsets or paradigms. But, those deep leverage points are harder to design for (Angheloiu, 2018, October 18). This thesis projects evolves around a specific scaling strategy that aims to shift cultural values, mind and beliefs, namely scaling deep.

Recognising that shifting mindsets and paradigms is an effective lever of change (Meadows, 2015) makes scaling deep a relevant strategy to pursue when aiming for societal transformation. This presents an opportunity for this graduation project to explore how design can support social innovations to scale and expand their impact on a more systemic level.

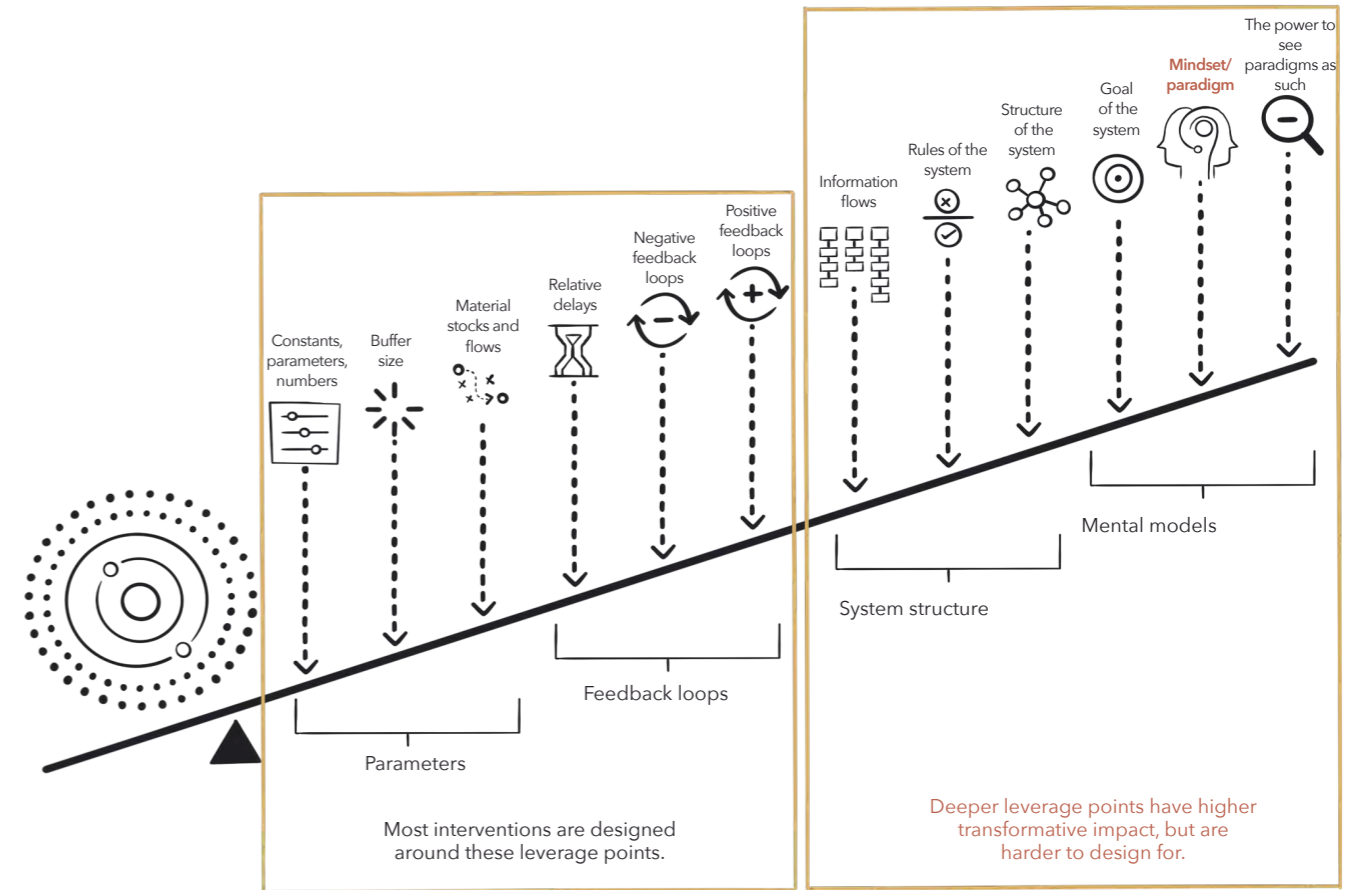


Figure 1: Lever of system change after Meadows (2015) & Angheloiu (2018, October 18). Deeper leverage points are harder to change but can have a higher transformative impact. This graduation project is interested in understanding those deep leverage points especially shifting mindsets.

Motivation

The second year of my studies at TU Delft allowed me to investigate design for society and value creation. Especially, the course "Strategic Design for Social Innovation" held by Ingrid Mulder and Alicia Calderon Gonzalez sparked my attention and motivation to pursue a graduation project in the field of social innovation. It was this course where I got introduced to scaling and the scaling deep phenomenon.

Scaling deep is one of the multiple strategies to scale social innovation and reach societal change (read more about scaling in chapter 1.3.5). Scaling deep focuses on the tacit and intangible aspects that affect peoples, values, minds and beliefs. It aims to transform cultural roots to bring lasting change in society (Moore & Riddell, 2015).

During that time, I also read about Donella Meadows 'Leverage Points: Places to Intervene in a System' (2015) where she points out that changing the way people think is a powerful way for change.

Intrigued by the thought that a seemingly

small change can have a big impact I wanted to understand how design can play a role in this area and how design can enable this transformation to happen.

Research question

To find an answer on how a mindset shift can become a lever of change and how design can enable social innovations to make use of this lever the following research question was formulated that was pursued in this graduation thesis

RQ 1

How can design be used to transform the abstract and theoretical concept of scaling deep into something more tangible and implementable in order to make it usable for social innovations?

This research question consists of three parts: (1) examine scaling deep from a theoretical lens; (2) exploring social innovation practitioners scaling journey; (3) identifying design ways and means of making abstract things tangible/ facilitating scaling deep. Hence, to answer the main research questions three sub-questions need to be answered first. On the one hand, the abstract theoretical concept of scaling deep needs to be understood. A deep literature

study shall clarify the implications of scaling deep and elucidate more actionable approaches to scale deep as well as identify a focal point for this graduation.

The sub-question therefore is:

Sub-RQ 1

What does scaling deep mean and look like from a theoretical perspective?

On the other hand, the system social innovations are embedded in needs to be understood. Likewise, is it important to uncover the needs and concerns of the innovators as well as their way of operating and scaling. This shall allow to identify leverage points and spot opportunities for interventions that allow implementing scaling deep into the scaling journey of social innovators and make the scaling deep concept more actionable and implementable.

The corresponding research question is:

Sub-RQ2

How does or can scaling deep look like from a practitioners perspective?

Lastly, design tools, methods and practices need to be explored that can facilitate the translation of the abstract scaling deep concept into something tangible.

Following the question:

Sub-RQ3

How can design enable the translation of scaling deep into a tangible and actionable strategy?

The objective of this graduation project is to develop an actionable solution that facilitates social innovations to adopt the concept of scaling deep and supports social innovators in their scaling journey.

1.1.2 Cooperation partners

PCM Lab

This graduation project is embedded in the Participatory City Making (PCM) Lab that is one of the Delft Design labs in the Faculty of Industrial Design Engineering at the Delft University of Technology. The PCM Lab sees the city as a transition space and focuses on building innovation capacity in the urban realm by using participatory and co-creative principles and techniques to empower change makers and explore the new role of design in a transforming society. By forming co-creative partnerships with policy makers, grassroots initiatives, academics and designers they create artefacts that enable others to achieve systemic change and societal impact. Being part of the PCM lab allowed access to their resources and to connect to a network of students and researchers with similar interests and research areas. This way a broader body of knowledge was accessible and a vivid exchange of insights and shared activities was possible. This could take the form of developing and holding creative sessions or conducting interviews together with researchers also involved in the Lab. Through the PCM Lab this graduation project was connected with the DESIGNSCAPES research consortium which resulted in a collaboration for this thesis.

DESIGNSCAPES

DESIGNSCAPES, is a Horizon 2020 EU* funded coordination and support action program, that explores the context of urban environments to encourage the understanding, enhancement and up scaling of Design Enabled Innovation. The DESIGNSCAPES consortium brings together cities, industries, small business and research actors to better understand how design tools and methods can strengthen grassroots initiatives, public sector organisations and policymakers to innovate. In three calls best practice grassroots social innovations were selected that are design-enabled, user-centred, embedded into an urban environment and aim to tackle a complex societal issue such as climate change or youth unemployment for example. Each call was focusing on a different project development stage. DESIGNSCAPES supports the social innovations mainly in two ways. On the one hand, by providing the selected cases with financial medium. On the other hand, by offering a training and guiding program where design tools and methods are presented and applied to provide practical support.

At the moment when this thesis project took place the third and last call of DESIGNSCAPES started. In this stage the scaling of social innovations is supported in particular. In this context, 10 grassroots initiatives in the scaling phase located across Europe have been selected by the consortium as they have already successfully established their innovation in one context and

are now aiming to scale into another context. Figure 2 shows the different location in Europe the innovations are located.

As this graduation projects focuses on the scaling phase of social innovations, a collaboration with DESIGNSCAPES was the perfect opportunity to get first hand insights into the scaling journey from a practitioners point of view. The collaboration with DESIGNSCAPES benefits this graduation project in the way that it allows to bridge the gap from theory to practice. Being able to get first hand experiences and insights from practitioners enriches the theoretical knowledge gained from literature study and enables to directly validate assumptions and test ideas during the process. Designing for and with the DESIGNSCAPES social innovations allows to develop an outcome that align with their needs. In addition, it presents a mutual learning collaboration where knowledge and experiences are exchanged between researcher and practitioners which enriches each others journey. (for more information see also: <https://DESIGNSCAPES.eu/>)



Figure 2: The location of the ten social innovations that got selected for the third call of DESIGNSCAPES.

* Horizon 2020 reflects the policy priorities of the Europe 2020 strategy and addresses major concerns shared by citizens in Europe and elsewhere.

A challenge-based approach will bring together resources and knowledge across different fields, technologies and disciplines, including social sciences and the humanities. This will cover activities from research to market with a new focus on innovation-related activities, such as piloting, demonstration, test-beds, and support for public procurement and market uptake. It will include establishing links with the activities of the European Innovation Partnerships (EIP).

Funding will focus on the following challenges:

Health, demographic change and wellbeing; Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the Bioeconomy; Secure, clean and efficient energy; Smart, green and integrated transport; Climate action, environment, resource efficiency and raw materials; Europe in a changing world - inclusive, innovative and reflective societies; Secure societies - protecting freedom and security of Europe and its citizens. (<https://ec.europa.eu/programmes/horizon2020/en/h2020-section/societal-challenges>) (<https://ec.europa.eu/programmes/horizon2020/en/h2020-section/societal-challenges>)

1.2

PROJECT SET UP

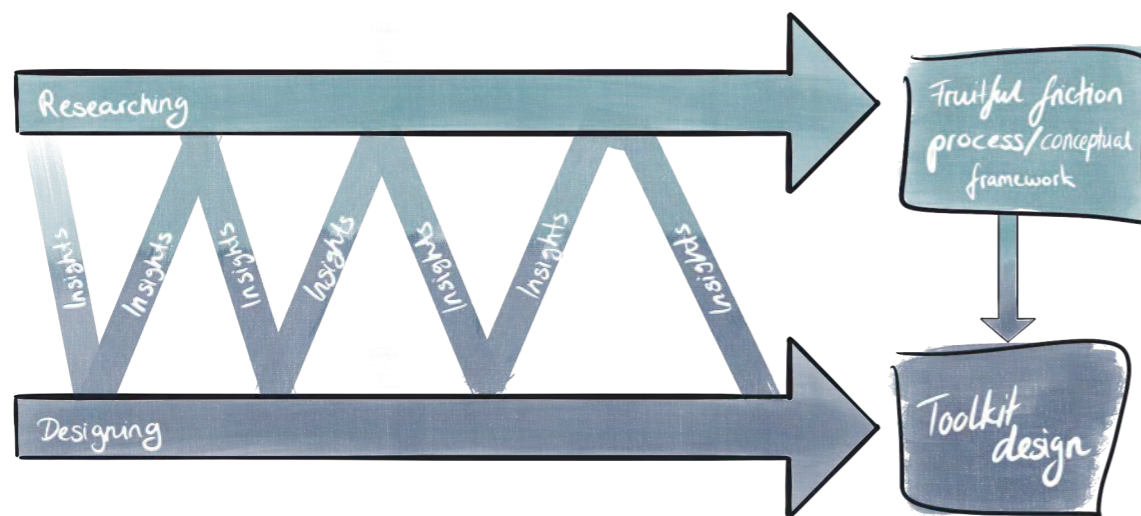
This part focuses on outlining the research approach and presents an overview of the process followed. Lastly I will explain my methodology.

1.2.1 Approach

To find an answer to the above described research questions a research through design approach combined with other research activities was applied to gather insights and generate knowledge (Zimmerman & Forlizzi, 2007; Stappers et al., 2014). Knowledge was created through a in depth literature exploration as well as by conducting different research activities, like creative sessions or semi-structured interviews. This allowed to enrich and define the body of knowledge about the phenomena of scaling deep within the scaling journey of social innovations. The research activities were used as stimulus to test and validate assumptions that underly the phenomena and are relevant for the solution. In contrast to an parti-

cipatory design approach that is focused on developing a solution with the people effected by it and aims to meet their needs (Dell’Era & Landoni, 2014), for this graduation the research through design approach was seen as apt since multiple cases were explored and engaged to gain knowledge and gathered insights that informed the development of the conceptual framework as well as the final design. Most of the research activities informed the research as well as the design (see Figure 3).

Figure 3: Following the research through design process was an interplay between designing and researching that lead to the conceptual framework and a toolkit.



1.2.2 Process

This section provides an overview of the three main phases that were followed in this project. Figure 3 presents a visual overview of the process and indicates in which part of this report this phase is represented.

Phase 1

The first phase of the project was determined to explore the phenomena of scaling deep from a theoretical and practical perspective (Sub-RQ 1 & Sub-RQ 2). The goal was to understand the context of scaling social innovations and identify opportunities for this graduation project. The insights gathered in this phase mainly informed the research.

To explore scaling deep from a theoretical perspective general literature about scaling social innovations was studied. Furthermore, the terminology often used with scaling deep was explored (see chapter 2.1). Besides, a literature review was conducted to understand the basic concepts relevant to the thesis. This included studying literature about system change, societal transitions and the new role of design (see chapter 1.3). The literature study mainly provided insights

that informed and inspired the conceptual framework. To understand scaling deep from a practitioners perspective different research activities were performed. This encompasses semi-structured interviews, informal calls, document analysis and creative sessions. This exploration enabled me to understand the context of social innovations and their ways of scaling. In addition, the main struggles social innovators face when scaling were identified. The insights gathered during those activities did inform the research but also the design of the toolkit .

Phase one ended with the creation of a conceptual framework that presents my way of scaling deep (see chapter 3).

Phase 2

Phase two explored how the conceptual framework can be made actionable. Here, sub-research question three was tackled: "How can design enable the translation of scaling deep into a tangible and actionable strategy?" (See chapter 4).

1.2.3 Methodology

This phase started with three ideation sessions to explore how design can make scaling deep actionable. The sessions helped me to experience different perspectives, get inspired and become a wider understanding of the possible meaning and implications of the conceptual framework. The insights gathered from the analysis of these sessions revealed the main aspects that are relevant to the actionability of my process. Those aspects build the base for an iterative process where different MVP's (minimum viable products) were built and tested. The insights from those tests mainly informed the design of the toolkit but also provided general insights for the research.

This phase ended with the facilitation of two sailing sessions in which a first concept idea was tested.

Phase 3

The goal of this phase was to define and detail a solution that social innovators can use in their work. This was done by translating the research insights into the design of a toolkit. The toolkit was evaluated with two social innovations and then redefined. After completing the third phase the main research question could be answered. This phase followed a more participatory design approach since the focus was on defining the solution to fit the needs of social innovators.

Different research activities were carried out throughout the project which will be presented here.



Literature review

A big literature review was conducted at the beginning of the project to gain an understanding of existing research regarding social innovation and scaling (deep). This was useful in this thesis to capture essential concepts already developed by researchers but also allowed to identify knowledge gaps, areas that have not yet been explored in detail which opened opportunities for further research to be done. The literature review allowed to position this thesis in the research context and was the foundation for the conceptual framework that was developed in the first phase of the project. Further literature studies throughout the process informed specific aspects of the research and provided the validity of my findings.

get-to-know each other calls lasting about 20-40 min were conducted, where cases were informed about the thesis research and their interest in a further collaboration was asked. Afterwards, five cases were interviewed in a semi-structured way, each interview lasting about 1-1,5 hours. An outline of questions (interview guide) was prepared for each interview, however, depending on the given information topic that seemed to be interesting were followed as well. The semi-structured interviews allowed me to get an in-depth understanding of the cases projects, their needs and concerns when entering the scaling phase. One of the five cases was a social innovation that participated in the second call. Another semi-structured interview was conducted with a partner in the DESIGNSCAPES consortium. Gaining insights from a DESIGNSCAPES perspective was valuable since it brought in a new perspective.



Semi-structured interviews

In the first phase of the project seven semi-structured online interviews, via the video calling platform Zoom, with DESIGNSCAPES cases and other relevant practitioners were conducted. First, some



Document analysis

In order to support and converge the research, a document analysis was carried out. Different documents related to the DESIGNSCAPES cases (e.g. DESIGNSCAPES application forms, websites, other documents cases provided) were analysed to en-

rich the understanding of the context of the social innovations and scaling stage, in addition to the qualitative interviews.



Informal calls

For the first month of the project, the DESIGNSCAPES team hold biweekly so-called coffee calls. Those were about one-hour lasting informal video calls open for any of the cases to join. The purpose of those calls was to give cases a platform to meet and support each other, exchange insights or struggles and build the DESIGNSCAPES community. Attending those calls enabled me to better understand current issues cases face in their daily practice.

Creative sessions

Following the research through design approach different creative sessions with cases and students were conducted in each of the three project phases. This allowed to gather insights and knowledge that informed the creation of the conceptual framework as well as the development of the final concept. In total ten creative sessions were held online using the collaboration platform Miro and the video calling provider Zoom (to see the Miro board that were used in the different sessions see appendix 2-6). Each of the sessions lasted about 1-2 hours. Some of the sessions were developed and conducted together with researchers of The PCM Lab.



Training module - Using reflection to approach your future steps

This session was held at the very beginning of the thesis project and allowed to understand cases past and future concerns and challenges regarding the upcoming scaling phase.

The session was based on the graduation outcome of a PCM Lab researcher, in collaboration with him and two other researchers of the Lab, it was adjusted to first the DESIGNSCAPES context. The training module was aimed to let cases reflect on the abilities they applied in past projects to learn more about how to tackle the challenges ahead and derive actionable steps from them. Two cases participated in this two hours session (Case 1 & 9, see case overview chapter 2.2 & appendix 2).



2 pizza sessions

In collaboration with another PCM Lab graduate student two so-called Pizza sessions were held in phase one to explore the use of metaphors in expressing and exchanging tacit knowledge and perspectives. Case 6 and 9 participated in one session each. In the sessions two people from the case and one external stakeholder was present (see appendix 3).



3 Ideation/ inspiration sessions

In the solution exploration phase three ideation sessions were facilitated in order to inspire the researcher and enrich perspectives on the phenomenon. The sessions provided rich insights about personal and subjective perspectives of par-

ticipants regarding the meaning of the rather abstract conceptual framework which informed the followed solution development. Session#1 lasted 1,5 hours and four design students participated. Session#2 also lasted 1,5 hours and two young design professionals and one design student participated. Session#3 lasted 1 hour and one person from case 9, one sociologist PhD candidate and two design students participated (see appendix 4).



2 sailing sessions

At the end of the second phase, two so-called sailing sessions were conducted where the first concept idea was tested. This was a first evaluation of the concept. Each session two participants from one case participated in the one-hour lasting session. After the session, a 30 min reflection and feedback interview/conversation followed. The sessions had two goals, testing the use of the metaphor of sailing to express implicit frames in an actionable way and evaluate if the concept example facilitates triggering, expressing, capturing participants frames to reach a common ground (see appendix 5).



2 toolkit evaluation sessions

Two one hour, online sessions were hold to evaluate the toolkit and co-create with the cases how it could be further developed and improved. The same cases and people that participated in the sailing session participated in this evaluation. This was done because this way they already experienced the workshop and were familiar

with this part of the toolkit. The goal of the sessions was to understand how the process and tool can be made actionable and understand how to best train innovators in the process (see appendix 6).



MVP tests

To validate learning and progress in the concept development, in the second phase of the project, five tests with students and young professionals were conducted. The tests followed an iterative approach, where different minimal viable products (MVP) were built, tested and learning was derived to gain knowledge which informed the solution development. During each test, lasting about 30 min, 3-5 minimal viable products (MVP) were tested aiming to understand and explore different aspects of friction, different ways to make people express their way of thinking and trigger different emotions. The goal was to explore "How to design for friction?" and "How to design friction that leads to reflection and makes people express their way of thinking?" (see appendix 8).



Online survey

A small online survey was send to people from different cultural backgrounds and age group in order to evaluate the hidden implications and perceptions of the metaphor chosen for the final toolkit. In total 18 people participated in the survey. The results of this survey will be explained in chapter 5 and the survey can be found in appendix 7.

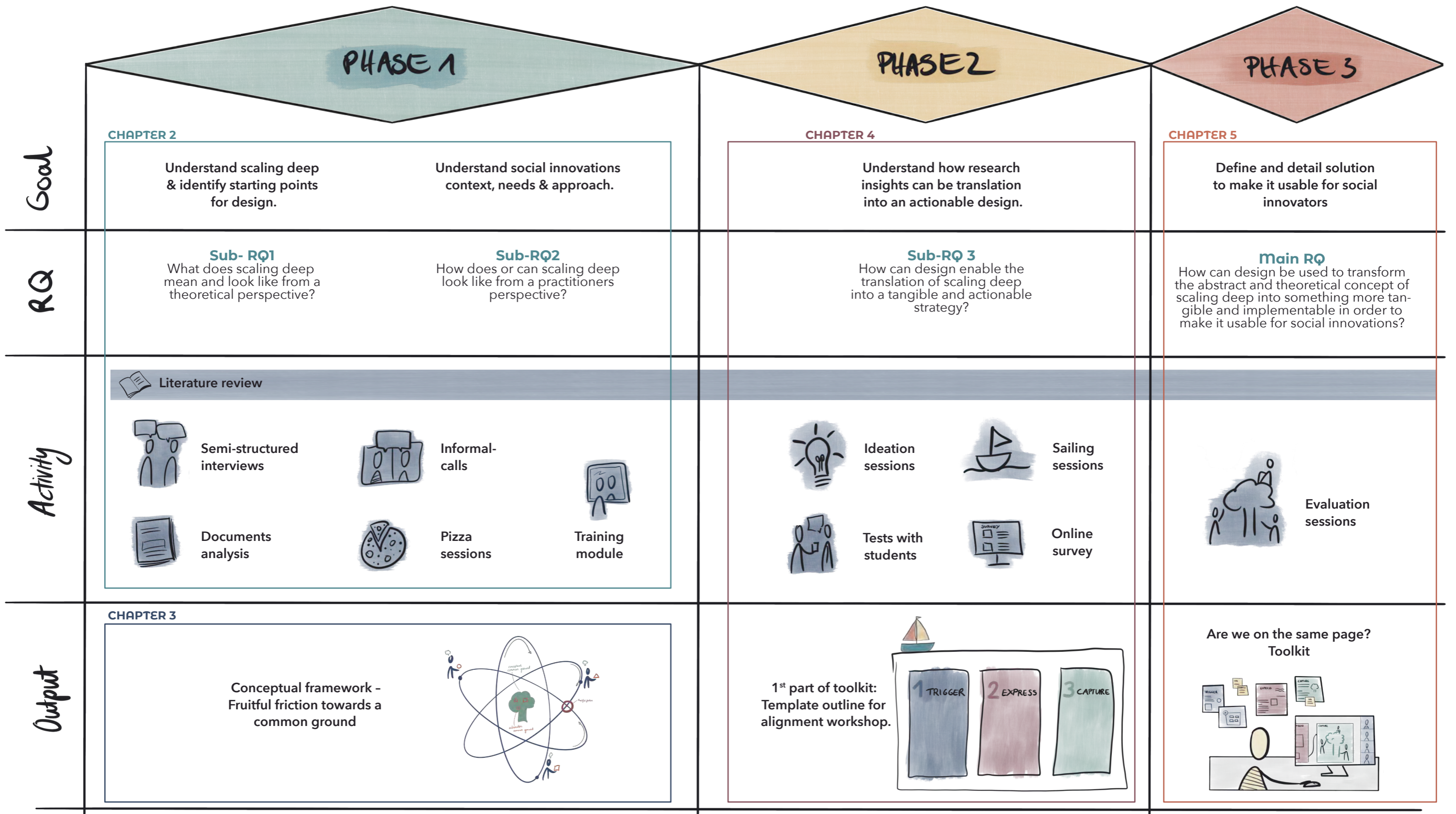


Figure 4: An overview of the project process, divided into three phases. Each phase focused on a different goal and (sub-) research question. In the section 'activity' the main activities that were conducted in this phase are presented. In the lowest section, the main outcome of each phase is shown. The squared boxes indicated in which chapter of this report the corresponding phase is reported.

1.3

INNOVATION CONTEXT

In this part, the main concepts relevant to this graduation will be presented. The innovation context will be outlined. I will introduce the three scaling strategies and talk about the new role of design.

1.3.1 Social Innovations

The term social innovation refers to new practices that address complex societal problems while at the same time meet social needs. What makes social innovation particular in regards to other fields of innovation is that its' focus lies on impact. A social innovation's primary goal is to serve and bring value to society and the public rather than being profitable, regardless of whether they

are incremental or radical. Social innovations can happen bottom-up, top-down or as a combination of both (hybrid), which can change routines, processes or current beliefs that have the potential to achieve systemic change. Social innovation, in the sense of the organisation or enterprise behind the idea, is often small, local initiatives and organisations that tackle one part of the

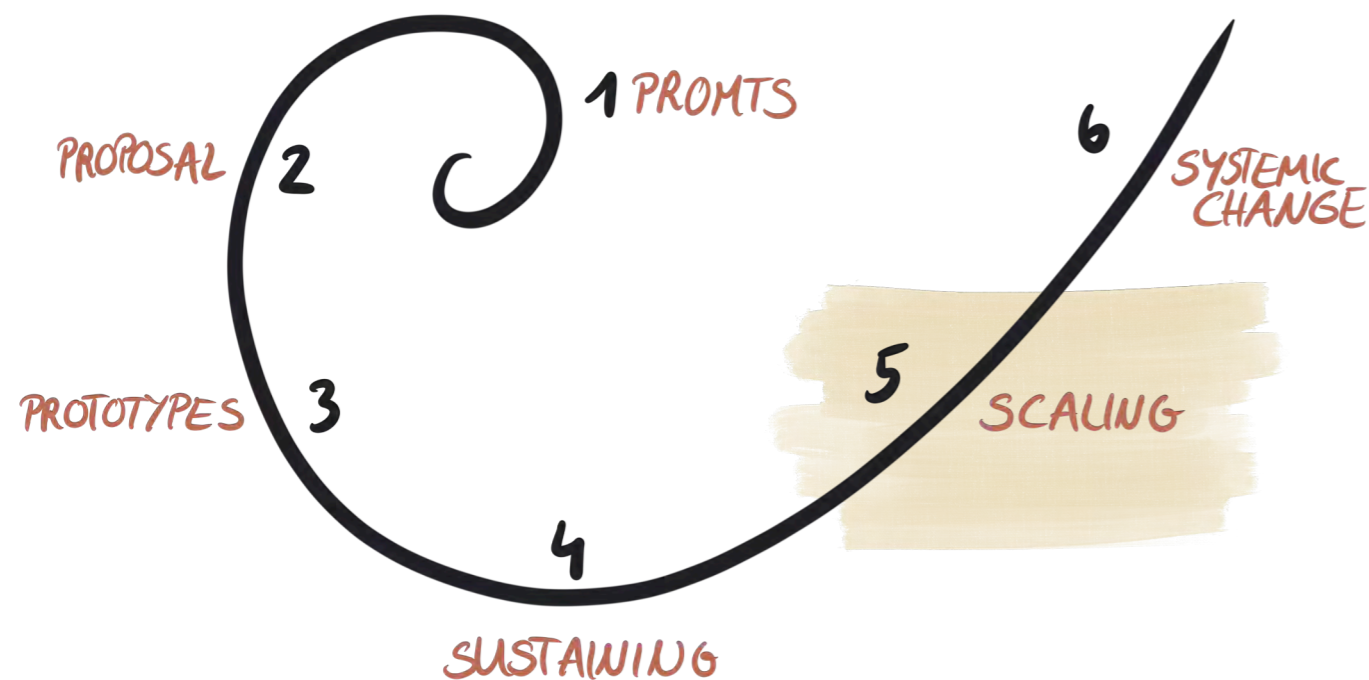


Figure 5: The focus of this graduation process is on the fifth stage of the social innovation process (Murray et al., 2010).

complex societal problem. They introduce new ideas for products, services, platforms or models that enable new forms of interacting and collaborating, including, amongst other things, new ways of doing, organising, framing and knowing. The organisational form of the innovation is diverse (e.g. co-operatives, social enterprises, NGOs, charities etc.) and a key aspect for their success is their ability to work in coalitions and networks (Concilio & Tosoni, 2019; Manzini, 2014; Murray, Caulier-Grice, Mulgan, 2010; Strasser, de Kraker & Kemp, 2019; Westley & Antadze, 2010).

The social innovation process plays a critical role in the success of innovation and its ability to reach a large-scale impact. Murray et al. (2010) introduce a six-stage social innovation process (see Figure 5) that starts with identifying the actual problem, developing and testing an idea that meets societal and individual needs, till its' implementation and scaling to achieve systemic change. The stages provide a framework and give orientation about the different aspects to consider when aiming for societal impact but do not necessarily follow a linear practice, hence, they can be iterative and dynamic. The stages, one to three are about (1) finding

and framing the right problem, (2) generating ideas and (3) test these solutions in practice, using prototypes. The fourth stage is about securing viability, so, ensuring financial and resource sustainability. In the fifth stage, the focus is on growing and spreading the innovation, to reach the final goal of systemic change, stage six (Murray et al., 2010). Systemic change is the transformation of the system, that involves laws and regulation, business models on a private and public sector level. While design is very well established in the first three stages, there is a gap in how design, can facilitate the transition from (4) sustaining, to (5) scaling and from scaling to system change (6) (Mulder & Kun, 2019). It is an under-explored area and therefore offers an interesting field of research for this project. As mentioned in the introduction, focuses this graduation project on the scaling phase and more specifically on the scaling deep strategy. But, before we dive into the scaling deep concept it is necessary to zoom out and look at the ecosystem social innovations are embedded in as well as scaling in general to understand factors that impact scaling and the innovators' ability to reach systemic change.

Societal transitions

Understanding the system means to understand societal transitions. Here, we will look into large scale transformation processes.

Manzini (2015) notices that the complexity of the current world can not be solved by a complex solution but rather small initiatives, by " 'making things happen' and then learning from experience", thus through social innovations. However, the social innovation process by Murray et al. (2010) gives little insight into the wider system around social innovations or interdependencies of innovations with system actors and environmental factors that influence reaching systemic change.

Societal transformation, however, is nothing a single innovation can achieve alone, but the mechanism is far more complex and interwoven in the complexity of the socio-technical realms. Westley and Antadze, (2010) argue that in order to reach a broader impact, innovations have to scale their innovations across organisations, contexts and society. Consequently, a multidisciplinary and multi-stakeholder approach is needed to come closer to a transformation that brings societal change and can address these complex societal problems (Beers et al., 2006; Concilio & Tosoni, 2019). Moreover, Concilio and Tosoni (2019) argue that innovation is not only a multi-phase process but also a multi-level process. It is necessary to understand the interaction of actors, environment and innovation. The multi-level perspective (MLP) is a transition framework that describes trans-

ition happening within and across three levels: niches, socio-technical regimes and socio-technical landscapes (Geels, 2005). Niches are spaces where the innovation is happening, they are small networks of actors who provide the environment and time to research, experiment and learn through experience allowing to establish and embed innovations. This is where social innovations like the DESIGNSCAPES cases are placed in. A variety and **accumulation of niche innovations** put pressure on regimes and can enable **a shift on the regime level** as can be seen in Figure 6. This is what could be considered as the systemic change caused by social innovations. Regimes are institutions and infrastructures like policies, industries, markets or technologies that are relatively stable but react to changes from the niche or landscape level if pressure is big enough. Landscapes are external structures and contexts such as economic growth, wars, cultural norms, environmental or social challenges that are hard to influence and slow to change but put pressure on the regime level. A change on the landscape level can open opportunities on the niche level that permit shifts of innovation networks to quicken regimes transitions. The current COVID-19 pandemic can be taken as an example to explain those interdependencies of transitions.

I observed the influence of the different levels on each other first hand in my home country Germany. The digitisation of education and public authorities, in Germany, has turned out to be a tough process that has been largely neglected and was not priorit-

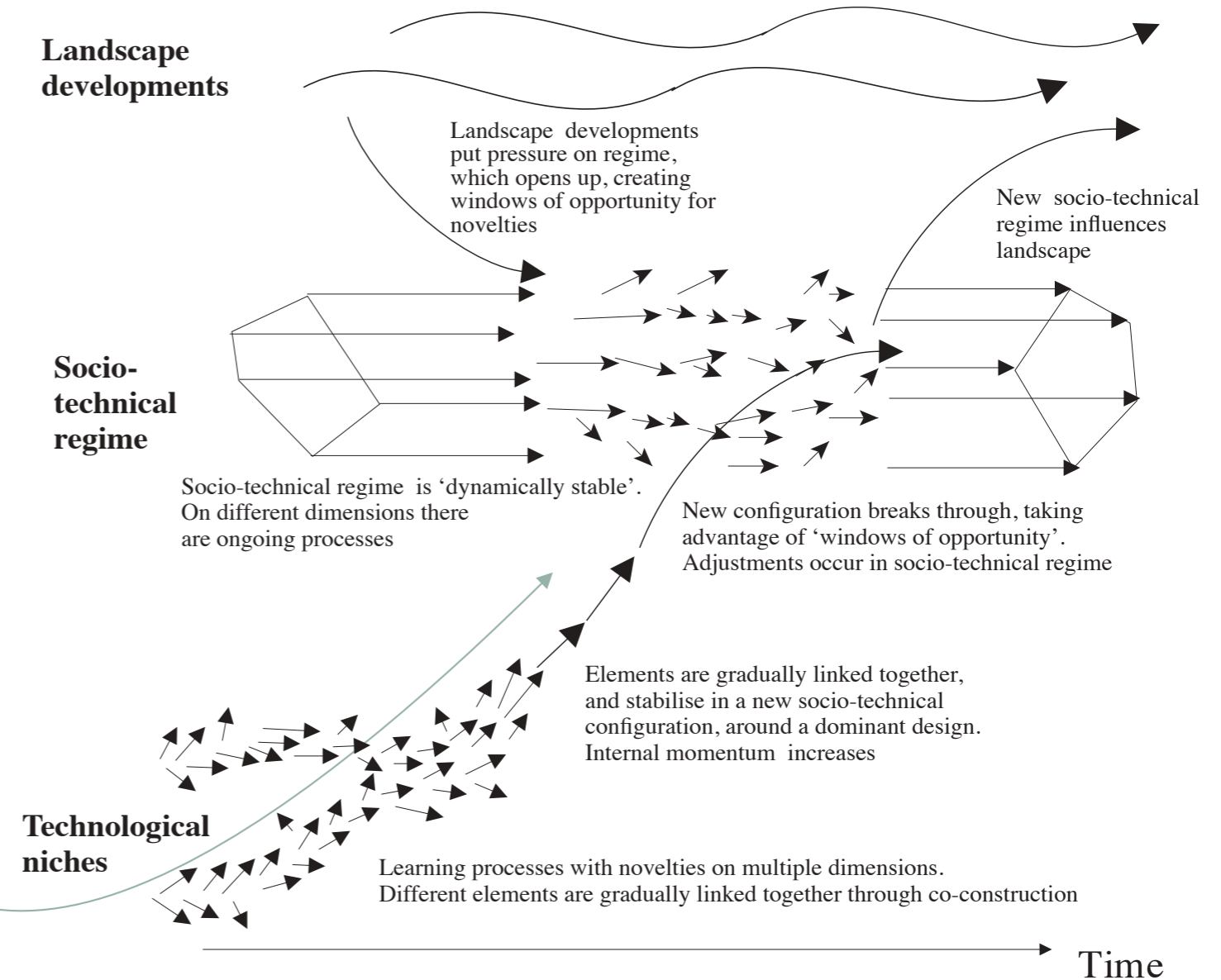


Figure 6: The DESIGNSCAPES innovations are located on the niche level of the multi-level perspective after Geels (2005). A quantity of innovations can influence the other two levels and bring change on the regime level.

ised. Few funds were invested in expanding the infrastructure for digitisation in these areas. The COVID-19 pandemic, however, with months-long lockdowns and homeschooling has accelerated this process dramatically. On the one hand, is the government now providing a financial medium to establish the necessary infrastructure, on the other hand, are innovations supporting homeschooling or enabling digital administration processes benefiting from this landscape transition.

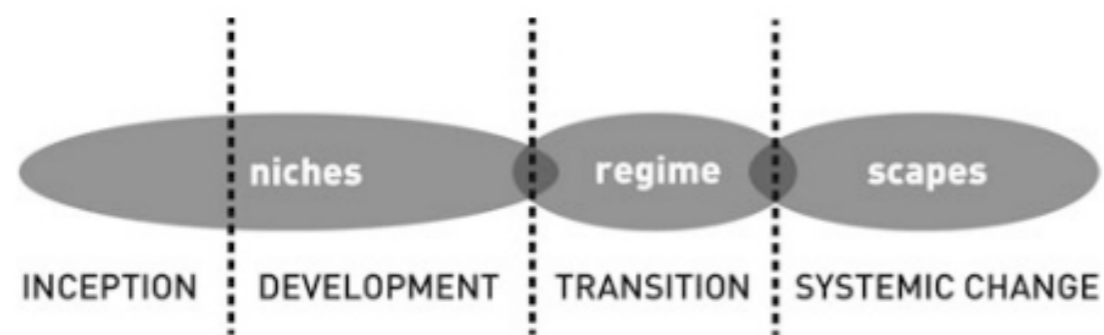
Concilio and Tosoni (2019) identified three stages of maturity of innovation to reach the fourth stage - systemic change and mapped those onto the multi-level model (see Figure 7). This consideration provides information about the maturity stage of DESIGNSCAPES innovations in regards to system change. Interception and development are similar to the first four stages of the social innovation process of Murray et al. (2010), where the market and societal needs are identified and ideas for solutions are created and implemented. Those two stages are where the niches are placed and where the first and second call of DESIGNSCAPES focused. The transition stage corresponds to the scaling

phase of Murrays et al. (2010) process, diffusing the innovation in different contexts and exert influence on the regime level. Systemic change here is when influence happens at the scape level. The social innovations that are chosen by DESIGNSCAPES for the third call move in between the development and transition stage, respectively, the niche and regime level, they are scaling from one context to another one (see also chapter 2.2).

Conclusion

The examination of the broader context of social innovation, zooming out at looking at the wider system and mechanisms, was useful to get a better understanding of where in the transitioning system the innovations are placed. Forces around social innovations that they have little influence on but can greatly influence the success of their innovation have been identified. Furthermore, it has been shown wherein the social innovations process the DESIGNSCAPES cases are located in regards to the different stages and levels.

Figure 7: DESIGNSCAPES 3rd call social innovations are located between the development to the transition phase.



1.3.2 The urban space

As we have seen in the previous section, changes and transitions that social innovations initiate put pressure on policymakers to act and push society to change behaviour but also change their values and beliefs. Cities play a special role in this construct since they can be seen as a problem and solution spaces. Cities are where the most pressing problems are generated and become visible, but also where solutions can emerge (Concilio & Tosoni, 2019). To better understand the relevance of cities in this domain it is helpful to compare the city of Jakarta and Amsterdam since both face similar issues but have different strategies to deal with them.

An example where we can see very clearly the connection of a global issue becoming visible and problematic in a city is Jakarta, Indonesia's capital. The effects of climate change and urbanisation are causing Jakarta to sink. Already 40% of the city are below sea level and the city faces floodings frequently. In addition to the flooding, that increase as the sea level rises, the swamp-land that Jakarta is built on causes the city to sink. Parts of the city sunk 2.5m in 10 years and it is continuing to sink (Hidayat & Mei Lin, 2018, August 12). In addition, the expo-

stantial population growth in the last years in Jakarta to around 10 million inhabitants (state of 2020, World Population Review, n.d.) caused that the city infrastructure needed to change accordingly. Higher, bigger but also heavier buildings are build but the ground is not sustaining the number of buildings that are constructed on it which reinforce the sinking trend. The governments' solution is to move the capital to Borneo, a different island where a new city shall be built. This move might decelerate the sinking of the city, however, it is not offering solutions to combat the actual issue. In fact, environmentalists raised concerns that the move could endanger the remaining flora and fauna in Borneo and increase carbon emissions.

In the Netherlands, where the rising sea level and increased density is also an issue - although less severe than in Jakarta - solutions are generated in the city itself. Schoonschip is a floating village that was created together with the inhabitants to act as an example of how alternatives to current living situations can look like. The project aims for ecological sustainability with a circular and decentralised solution for water, energy and waste systems but also by inviting the neigh-

bours to use the collective electric car or taking responsibility for their resource consumption and waste, for example. (More information under: <http://www.spaceandmatter.nl/schoonschip>)

The examples show the complexity of today's global problems, that even solutions to one problem might cause new problems elsewhere. They highlight the role of governments and the importance of social innovations to propose new ways of tackling wicked problems. A city is like a small ecosystem where solutions for a global problem can be explored and tested on a local scale, which then can be spread and scaled globally.

Who are the social innovators?

There are different actors that initiate and drive change and it's not necessarily the designer who has to take this role. Following

the notion of Mulder and Kun (2019) with a "city as a platform", it is a playground of multiple actors, and offers great potential for the creation of a network of change makers, citizens, policy makers and other stakeholders to create innovative solutions. De Koning, et al. (2019) identified ten different types of participatory city makers that enable transitions in the urban space (see Figure 8). The different actors are well embedded in their local context and are often connected to local politicians and like minded change makers. If their network is large they can have great influence on city transformation. They bring people together and create (inter) active environments for people to meet and co-design. Potential lies in the connection of these communities to more tactical and strategic activities to make them a hot-spot for sustainable city transitions (De Koning et al., 2019).

What challenges do they face?

As beneficial as it can be to be connected to like-minded people it has already been identified that social innovators also need to involve a variety of stakeholders and expand their network beyond change makers to achieve impact on a systemic level. That brings with it various challenges. Yee & White, (2016) state that hurdles innovators need to overcome are that stakeholders can have a short-term orientation favouring actions or decisions to suit or fulfil immediate needs or goals rather than opt in for long term solutions. Furthermore, they value performance and profit over impact and lack incentives to make changes, just as we saw with the example of the German government and digitalisation. Having a risk-aversion mindset and the political nature of the public sector causes that most innovation attempts turn out to be incremental and short-sighted in nature. The context social innovations take place is more diffuse, especially compared to the private sector where the system is more closed, less stakeholders are involved and goals and values are more clear. The biggest challenge however, is how social innovations can scale their impact (Lyon & Fernandez, 2012) in particular since the context becomes more diffuse and bigger the more they scale towards the regime and landscape level.

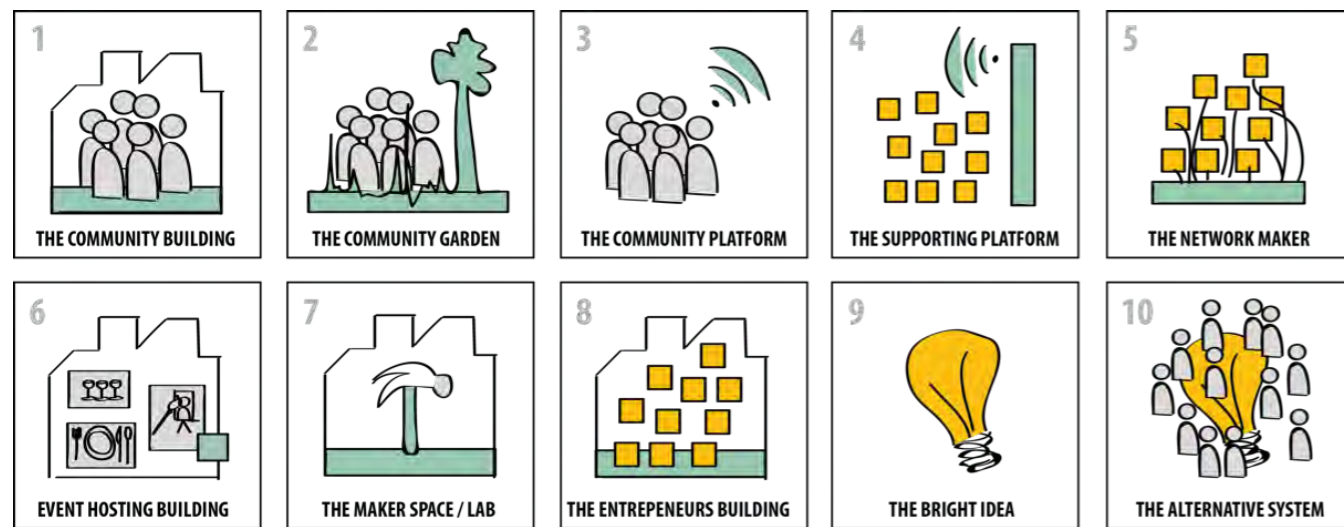


Figure 8: Designscpaes 3rd call innovators can be found in this categorisation of participatory city makers by De Koning, et al. (2019). They initiate projects and are well connected in their context.

1.3.3 The condition to achieve social innovation at scale

Here, three key conditions to achieve impact at scale are presented.

Network & communities

Building networks and communities are the most important condition for social innovations success. De Koning, et al. (2019) indicate that social innovation does not happen isolated but in a complex system where multiple stakeholders are involved and engaged. In those often diffuse projects, there are no clear responsibilities and there is a lot of uncertainties about the process and outcome. The division of responsibility and decision-power in public sector organisations and projects are often unclear (Yee & White, 2016).

To achieve useful innovation Yee and White (2016) identify 'community building' as the primary condition, suggesting that all relevant stakeholders, users, providers, local authorities should be involved in the process (see Figure 9). For social innovations to be embedded in those multistakeholder networks and communities, this means that they have to manage the different perspectives in a way that is beneficial for them. The active involvement bases on a trusted relationship of multiple stakeholders with different backgrounds, expectations, ways of

working and goals require room to discuss different perspectives and reach a shared understanding (Beers et al., 2006). This is where community building and having networks with trusted stakeholders become important. Yee and White (2016) as well as other scholars (e.g. Mulder & Kun, 2019; Manzini, 2014) stress the importance of communities and networks for social innovation to be enforced and to create trusted relationships. Having strong coalitions and networks can be an instrument to drive societal change and guide the activities and people towards a shared desired path (Bijl-Brouwer & Malcolm, 2020). Among the different strategies that innovations can take to scale Gabriel (2014) proposes to build a delivery network and to form strategic partnerships. Those strategies entail building a strong community, raise awareness, transfer knowledge or create a sense of common values and mission for example. Strategic partners can help social innovations to accelerate the scaling process. De Koning et al. (2019) pointed out to exploit participatory city makers full potential and create the wished impact they need to be connected better and interactions within their communities but also with local authorities or private sector stakeholders need to be en-



Figure 9: Yee and White (2016) define ten conditions to achieve impact, grouped into three overarching themes. Community building is the most important condition here according to Yee and White (2016).

Common ground

Social innovations do not act in a silo but are woven in a web of different stakeholders, partners and communities. All those people involved have their own goals, their language and their way of thinking and those aspects might not always align with each other. However, having a basic shared understanding respectively is a precondition for a successful collaboration. Beers et al. (2006) state how important it is to have a common ground when dealing with complex problems, consequently with multiple stakeholders. Common ground is defined as “a common cognitive frame of reference between the partners of interaction” (Bromme, 2000). All efforts aiming to create a shared understanding enrich and deepen the common ground, whereas any form of interaction can be seen as a mean to create common ground (Bromme, 2000). However, Moor (2018) and Beers et al. (2006) argue that establishing and negotiating a common ground is a process that should happen deliberately and that the common ground needs to be made explicit.

People from different backgrounds have different perspectives and ways of thinking. This can be beneficial for the solution as it allows for more diversity, however, a multitude of perspectives can also cause misunderstandings and trouble decision-making. Beers et al. (2006) emphasise the importance of making individuals perspectives explicit to reach a common ground. Hereby, it is not only about sharing but also about seeing similarities and differences to gain an understanding of the varying viewpoints.

Understanding each other's perspective can make the process more effective and negotiation gains acceptance of everybody. Common ground is not static, it is an iterative, ongoing process. But how can common ground be achieved? As explained before, reaching the common ground is, on the one hand, facilitated by increasing self-awareness which is created by a trigger and on the other hand, it is the creation of the right conditions that enable a shared understanding to emerge. Yee and White (2016) explicate that trust is a pre-condition for a shared understanding. The uncertainty of process and outcome in complex societal projects require people to trust. Thus, people must trust in the process as well as in the innovators. Trust also relates to the feeling of being valued and helps in keeping networks together (Bijl-Brouwer, 2018). This supports the idea that scaling deep is much more about providing the conditions for different perspectives to be expressed, acknowledges and respect than forcing a certain mindset on people.

Two types of common ground are especially interesting for the context of social innovations: conceptual common ground and actionable common ground (Moor, 2018). Conceptual common ground refers to a more high-level alignment that can be given by having the same culture, profession, social environment or local background (Bromme, 2000). Conceptual common ground can be made explicit for example on the level of shared language used, by agreeing on the meaning of terms used. This

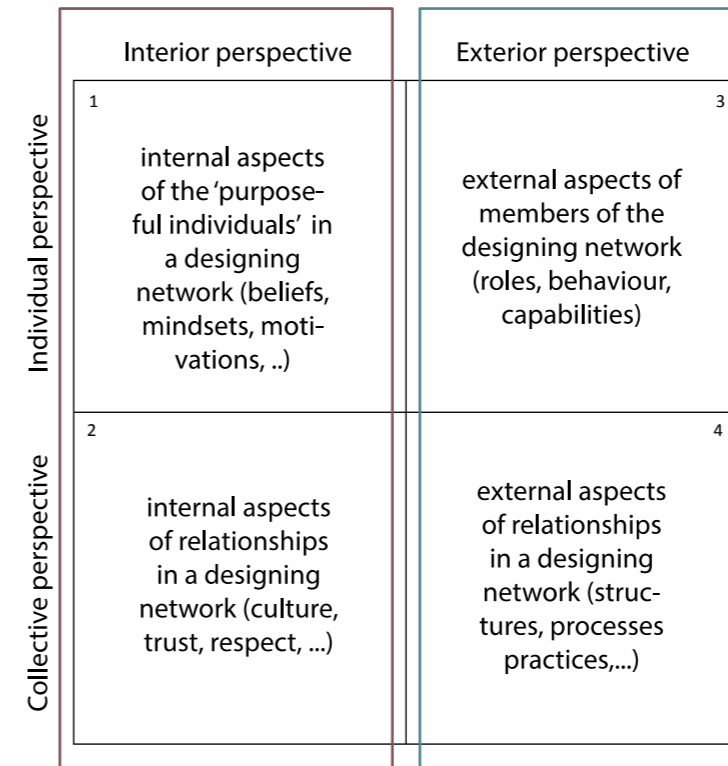


Figure 10: The four perspectives in a designing network presented in Bijl-Brouwer (2018) split into (red square) conceptual common ground and (green square) actionable common ground. This distinction helps to understand the correlation between the two types of common ground in a designing network.

avoids misunderstanding about the meaning and makes collaboration effective and directed towards a collective impact (Moor, 2018). Actionable common ground should follow after the conceptual common ground is established and describes the actions that are done within the collaboration. Bijl-Brouwer (2018) presents four perspectives that are relevant for designing networks in the context of social innovation (see Figure 10): (1) interior and individual perspective, (2) interior and collective perspective,

(3) exterior and individual perspective, (4) exterior collective perspective. Looking at this model allows to understand and see connections between conceptual and actionable common ground. The conceptual common ground is the interior perspectives one and two (colour red in the figure): beliefs, mindsets of an individual as well as the culture of the collective for example. The actionable common ground refers to the exterior perspectives (colour green in the figure) like roles, processes and practices which describe how people are working together.

Moor (2018) states that often collaborations start with the actionable common ground without aligning on a conceptual common ground first which causes troubles later in the process, therefore it is important to find and align on a conceptual common ground first. Most of the knowledge in the field of scaling social innovations has been focused on the exterior perspectives, describing new processes, structures, needed capacities and roles that are crucial to scale out or up (Bijl-Brouwer, 2018), hence aligning on actionable common ground. However, there is a gap in knowledge about how to best achieve conceptual common ground. Acknowledging that there are two different types of common ground is an important aspect to consider when aiming to facilitate the creation of a shared understanding of a conceptual and actionable level.

DIFFUSION OF INNOVATION MODEL

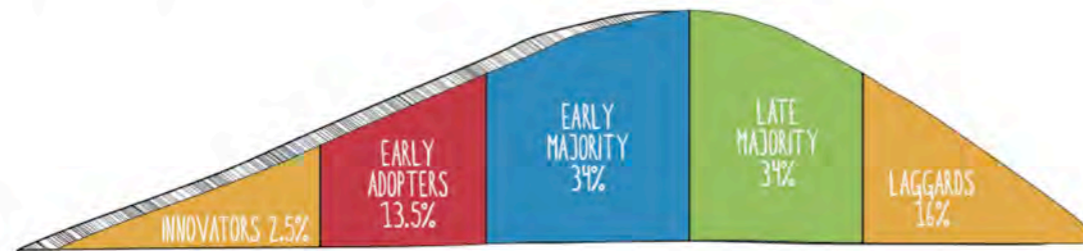


Figure 11: Model of diffusion of an innovation after Rodgers (2003). DESIGNSCAPES innovators are in the first two section (innovators and early adopters)

Leadership

As stated by different authors (e.g. Yee & White, 2016; Davies & Simon, 2013; Dees et al., 2004), leadership is also an important aspect of successful innovation. Leadership entails different aspects and actors. On the one hand, there are leaders within the social innovation organisation. Their role is to create the conditions for employees to be an active part of the movement and enable the innovation to happen. This can be for example by creating a collaborative environment, having certain organisational structures and an atmosphere of learning (Dees, Anderson & Wei-Skillern, 2004). They are responsible for managing resources and align change with the organisational value (Yee & White, 2016).

Leaders or city makers (as described in the part "Who are the social innovators?", In chapter 1.3.2) can be seen as the innovators and early adopters of Rogers (2003) model

of diffusion of innovation (see Figure 11). They are the first ones to adopt the idea and enable it to thrive.

Leaders in whatever form whatsoever, are important actors in the context of social innovations. The aspect of diffusion of an innovation is interesting since diffusion is what increases the impact of an innovation. Early adopters or project champions are actors who can majorly influence the success of an innovation. These actors can come from different fields. They can be citizens, but also people in the municipality or other important stakeholders and partners who are committed and understanding of the idea/innovation is crucial for it to work. This means it is important for social innovations to identify those actors and create a strong relationship with them.

Conclusion

Social innovations and the communities they are embedded in are part of a bigger socio-technical system with multiple actors that have different goals, resources, tools and relationships (Moor, 2018). Various internal and external forces influence innovations and the success of innovation also depends on its' capacity to deal with those influencing factors (Westley & Antadze, 2010). The bigger an innovation gets, the more forces act on them. So, when scaling there are new challenges that need to be overcome to move towards systemic change. Creating the right conditions for social innovations to thrive is not an easy task and there is no one right way. Multiple conditions need to be considered and are differently important. Community building has been identified to be the most important condition and plays a special role when scaling social innovations. A variety of processes need to act simultaneously and be embedded in a favourable environment for innovation to happen (Concilio & Tosoni, 2019). Common ground is an inevitable aspect of a thriving community and builds the foundation for collaboration.

This graduation focuses on the community building aspects with all its' implications like creating a sense of shared understanding as a base for meaningful and lasting collaborations.

Design has developed certain capabilities like abductive thinking that can support the creation of a conceptual common ground which will be explained in the following section.

1.3.4 The role of design

In this chapter, the new role that design is taking in the social innovation context will be outlined.

The field of design has changed in the last couple of decades. Design has evolved from a discipline that creates products and services towards one that enables change through new ways of working and looking at things (Manzini, 2016), it has emerged to a collective problem-solving process (Dorst, 2015). New design disciplines like Transition Design (e.g. Irwin et al., 2015), System Design (e.g. Bijl-Brouwer & Malcolm, 2020) or Design for Society (e.g. Tromp & Hekkert, 2019) emerged that focus on the bigger systems and aim to find solutions that serve the individual as well as society equally. Similar to the process of social innovation (see chapter 1.3.1), is the design process iterative, open-ended and co-creative in which contradictions and complexity are embraced and interdisciplinarity is valued. Being a co-design activity, design aims to involve all relevant stakeholders to enrich the outcome and create solutions with the people that are affected by and involved in the solution. This makes the design process apt for social innovation and complex challenges that inevitably require high interac-

tion and involvement of multiple stakeholders across different disciplines. Designers can take different roles in the innovation context, being an agent of change or a facilitator for change. The new role of designers entails the way they tackle problems, the approach and process they follow as well as the tools and methods they use. Manzini (2015a) argues that everybody can perform design activities, so a differentiation into diffuse design - non-design experts- and expert designers is necessary. Diffuse design is done by people who perform design activities but are not trained in design. The role of an expert designer does include to show and facilitate the way of thinking of a designer, with the methods and tools it implies (Manzini, 2015a; 2015b, p.37). However, Manzini (2015a) also argues that part of an expert designers capability is the critical thinking and reflection that creates knowledge, visions, and quality criteria that emerge through conversations during the design process which allows the designer to become a change agent.

Designers have certain capabilities and perform certain activities that motivate social innovation and can support their community with common ground building efforts. Mer-

oni (2008), highlights the ability of designers to facilitate strategic dialogues by “asking the right questions and triggering conversations” (Meroni, 2008) they direct stakeholders towards a shared understanding and vision. Besides, he states that designers can translate this heard understanding into tangible scenarios. Another ability that is attributed to the designers is abductive thinking and reasoning. An abductive approach allows creating space where new solutions can emerge. Abductive reasoning creates preliminary explanations to make sense of observations aiming to find new connections which encourage expansive thinking. The act of reframing existing data and knowledge allows one to shift perspective and see things in a new way to create innovations that are beyond the obvious. Reframing is a synthesis method that attempts to reshape an existing frame into a new perspective. It allows viewing the problem situation from multiple perspectives, creating a new angle from which a problem can be tackled (Dorst, 2011). Frames help people to diagnose, define and make sense of a situation and can be seen as principles, rules or patterns that every person has. Framing is a skill, that expert designers usually do naturally as part of the problem and solution space exploration (Bijl-Brouwer, 2019; Dorst, 2011; Kolko, 2009). In fact, Dorst (2015) argues that it is the design ability of abduction and frame creation that allows designers and non-designers to tackle complex societal problems successfully. Especially in the field of social innovation this ability can bring a lot of value and facilitate finding

novel solutions to complex problems. But also more specifically, in the context of scaling deep, is framing and re-framing interesting since it allows to see different perspectives (we will elaborate on frames in chapter 2.1.2).

Conclusion

In conclusion, the new design disciplines offer new processes and approach to deal with the complexity and enable a solution that serves the public as well as the individual. In addition, can design support social innovations in their process towards societal impact. Designers are one player in the field of social innovation that can create solutions for today's wicked problems or facilitate the process to enable others to perform design activities. Strategic conversations and the process of framing makes implicit notions explicit and scenario building makes those translated those intangible concepts into visuals that enable seeing a different perspective create a shared understanding and a common vision everybody is working towards.

1.3.5 Scaling general

Scaling innovations in the classical sense refer to growing, replicating or diffusing. Scaling can be done by growing as an organisation, hiring more people and opening new offices or by franchising for example. While those strategies can also apply for social innovations, the focus of scaling social innovations lies more on increasing their impact on a societal level in order to tackle the social or environmental issues they aim to address with their innovation (Davies & Simon, 2013). Murray et al. (2010) recognise that the process of scaling social innovations can be more organic and adaptive where scaling happens in the form of knowledge transfer, inspiration or mimicking. For example, in the social innovators' realm, a lot of knowledge they create in the form of tools, methods or best practice examples, for instance, is freely available. Therefore, others learn from their practices and the knowledge is scaled organically because of their open-source mentality. However, a common hurdle most social innovations face is the "struggle to expand their impact on social systems" because of the systems complexity and the variety of possible paths (Riddell & Moore, 2015). In addition, often, scaling is referred to as growing as an organisation. Hence, there is the need to move

beyond thinking about scaling as organisational growth and focus instead on scaling social impact. So impact means not only expanding the office to a different city but affecting society broadly despite the number of offices and employees. In other words, social initiatives need to reach and engage more people deeply. In practice this can mean, for example, changing the way people eat or move as Uber did. So impacting people beyond the specific innovation. This is necessary in order to secure funding but also to attract more people and ultimately increase their impact.

There are a variety of well-known strategies and approaches to scaling an innovation (See for example Westley & Antadze, 2010; Mulgan et al., 2007). Moore and Riddell (2015) identify three overarching categories of scaling that facilitate innovations to increase their impact and enable systemic change: scaling out, scaling up and scaling deep. To explain the connection between those three terms the metaphor of a tree can be used (see Figure 12). Scaling out is defined as "Impacting greater numbers" (Moore & Riddell, 2015). Meaning that the organisation replicates its idea in new contexts or transfers knowledge to others in or-

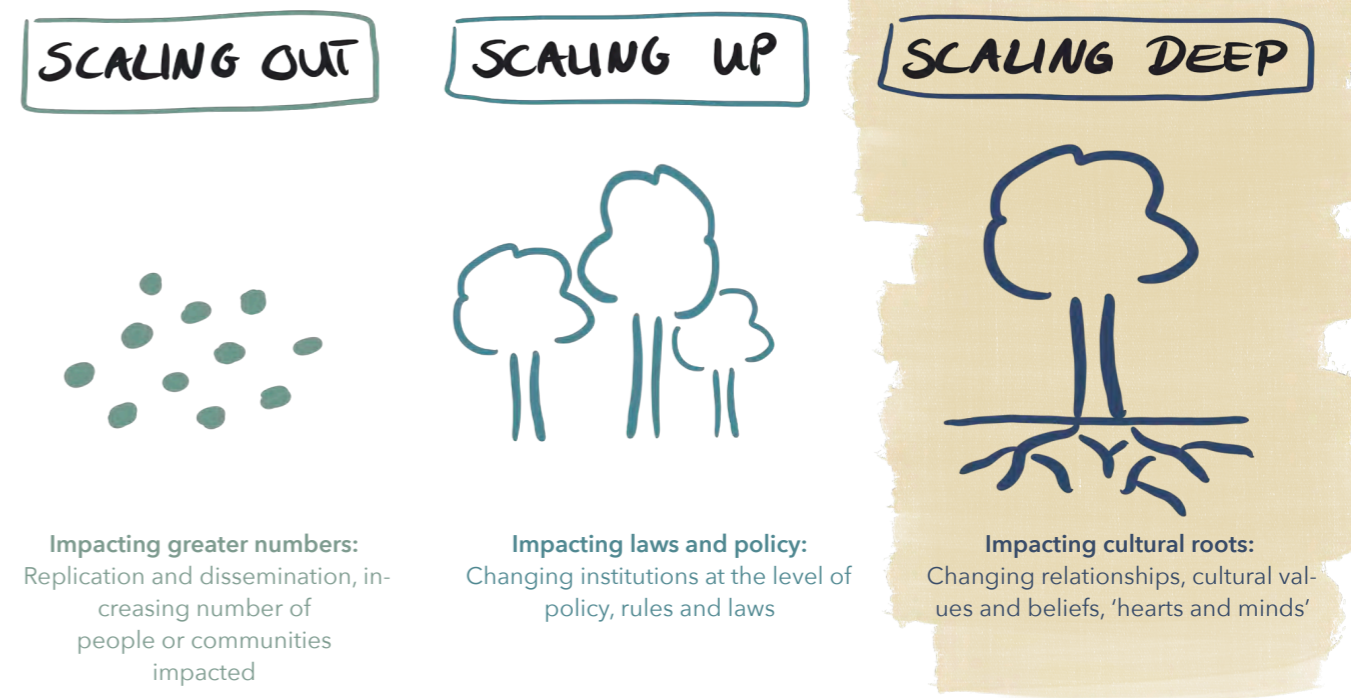


Figure 12: The metaphor of trees is used to differentiate between the three scaling strategies described by Moore and Riddell (2015). Scaling deep is the strategy that is invisible and hard to deliberately follow which provides an opportunity for design and this graduation project to focus on.

der to reach a broader audience. This refers to the classical understanding of scaling as described in the part above. Reaching out in new cities and hiring more people. Using the metaphor of a tree refers to scaling out to the seeds that one spreads around from which a tree can grow.

The scaling-up strategy involves changing laws, rules, regulations and policies, hence, acts on an institutional level. Scaling up can be seen as the grown trees that all grew after the same biological structure, referring to institutional laws and regulation that set the boundaries and provide the frame for a tree to grow.

With the strategy of scaling deep cultural roots are tackled. It is about changing relationships, cultural values, beliefs and minds, impacting mental models or world-views. This is based on the recognition that culture is an important part when it comes to implementing solutions where change must be deeply embedded in peoples relationships, communities and cultures as well as in formal structures (Moore and Riddell, 2015; Strasser, de Kraker, & Kemp, 2019). Scaling deep can be projected as the roots of a tree. The roots are what grounds the tree in the soil and create deep connections with other trees. They are invisible from the surface but built the basic structure that let the tree grow, makes it strong and resilient. Scaling out and scaling up happen at the surface, so are visible and tangible for the actors involved. Whereas, scaling deep is a process that is intangible and invisible and hard to grasp.

Those three strategies are very much inter-linked and connected and can only formally be separated. They act on different levels and happen at different points in the scaling process. In order to reach systemic change, all those strategies need to be combined in the scaling effort of social innovations (Moore and Riddell, 2015). Moore and Riddell observed two patterns of evolution in the process of innovators that aimed to scale. First, that scaling out was followed by scaling up and second, that innovations go from scaling out to scaling deep (Moore & Riddell, 2015). This suggests that scaling out is the first step when scaling and builds the

base for the other two strategies but also that scaling does not end with implementing the solution in a new context.

While scholars realise that all three strategies are important to apply in order to reach systemic change, there is an uneven amount of knowledge and resources available explaining how to apply the different strategies. Literature provides a sophisticated overview of steps and approaches to apply to scale up and scaling out, how to start what to take into account and what pitfalls to avoid. However, there is no clear understanding of how scaling deep can happen, how social innovations can deliberately apply and use the concept of scaling deep and how to uncover its' potential.

Main takeaways

This chapter started with introducing the project context:

- The general theme of this graduation is scaling social innovations deep
- The main research question is: How can design be used to transform the abstract and theoretical concept of scaling deep into something more tangible and implementable in order to make it usable for social innovations?
- The goal is to develop an actionable solution that facilitates social innovations to adopt the concept of scaling deep.
- The collaboration partners are DESIGNSCAPES and PCM Lab
- A research through design approach applied to conduct creative sessions or semi-structured interviews for example.
- The process followed three main phases: (1) Exploring scaling deep from a theoretical and practitioners perspective, (2) Exploring how research insights can be translated into an actionable design, (3) Designing and evaluating a toolkit.

Then the innovation context was explored:

- This graduation focuses on the fifth stage of the social innovation process namely scaling
- DESIGNSCAPES cases are niche innovations moving from the development and transition phase.
- Community building, common ground and leadership are important conditions to reach impact at scale.
- The design process offers new ways to tackle today's complexity
- Design capabilities like abductive thinking allow designers to be an active part of the social innovation context
- Of the three scaling strategies presented (scaling up, out, deep) lies the focus of this project on the scaling deep strategy.

02

EXPLORING

2.1

THEORETICAL EXPLORATION

This part is determined to explore scaling deep from a theoretical perspective. First, I will define relevant terminology and look at scaling deep from three different levels. Then I will show the relevance of friction. Lastly, I will present my definition of scaling deep. The goal is to explore the first sub-question of this thesis: What does scaling deep mean and look like from a theoretical perspective how can it be applied?

2.1.1 Scaling deep terminology

In this part, scaling deep will be studied, starting with a look at the definitions of the terms around scaling deep and then comparing the terms with a more subjective lens. This helps to better understand the implications of scaling deep.

One issue identified is the use of different terminology when talking about scaling deep. In literature, the terms value, mindset, belief, attitude and opinion are often used interchangeably without distinguishing how these terms differ from each other, how they are connected or influencing each other. Understanding how the individual terms are defined shall give insights into the nuances that connect them but also that make them different and shall enable a better understanding of how they influence each other. A literature review was carried out to identify the different concepts behind these terms. A visual overview of the definitions can be seen in Figure 13. Figures 14 - 17 show the different qualities and correlations that were identified when studying the terms. Those are a more subjective representation of the terminology but give a better understanding of how the terms influence each other.

Five opposing qualities were identified (see Figure 14) that can describe the concept behind those terms. The opposing qualities are: neutral - polarised; universal - individual; abstract - concrete; disoriented - directed; stable - dynamic. The first pair (neutral or polarised) shall explain whether the term implies a biased connotation that dictates what is right or wrong. With universal and individual the perspective of reach or scope of the term shall be examined. Looking at whether the term is more hold by individuals, small groups or by a whole society. Abstract is meant to represent more intangible and invisible aspects, whereas concrete is visible and tangible. By directed is meant that the term is more goal-oriented towards something or someone while disoriented means that the term is more context-oriented. Stable and dynamic refer to the likelihood that they change over time. The terms were assigned to the different qualities based on the exploration of the definitions and the researchers' notion gained when dealing with the topic. This classification provides comprehension about the subtle differences and similarities of the concepts behind (see also Figures 15, 16 & 17).

In the following, the different terms will be defined and their qualities are explored.

Value - Principle of something

Values can be described as principles that help us decide what is important in our lives (Values, n.d.). Values are neutral, universal and abstract in nature. They are enduring, fundamental concepts in our lives that guide our actions, attitudes, and judgments. Values are usually not articulated explicitly, but rather expressed in the way we behave in different situations, societies and cultural contexts. Our cultural understanding is influenced by the values we hold and determines our behaviour and how we live our lives. Values arise through interaction, communication or through our relationships (Iversen & Leong, 2012). Values can be passed on from parents to their children, for example. This happens unconsciously through the way our parents talk to us about certain topics, how they illustrate their values in everyday life activities or through the books they read to us. Values are embedded in our thoughts and actions and are fairly stable over time.

Mindset - Way of thinking...

The term mindset refers to a 'way of thinking. It is about how people understand the world with which they interact (Mindset, n.d.; Gupta & Govindarajan, 2002). "Mindset is a deep psychological construct that underpins our personally distinguishable attitudes, beliefs, and values" (Schein, 2015 in

Buchanan & Kern, 2017). A person's mindset can be viewed as "a set of attitudes or fixed ideas" (Mindset, n.d.). A certain way of thinking influences how we behave, what we set ourselves as goals or how we express ourselves. Mindsets are rather neutral and don't determine whether something is good or bad but they just propose one way of approaching things, hence influences our behaviour (Buchanan & Kern, 2017). A mindset is relatively stable over time and is an intangible and invisible but fundamental concept. Mindsets become visible in our actions, structures or our form of communication.

Attitude - Feeling about something...

An attitude is how you feel about someone or something. It is the relationship that a person has with an object or another person (Attitude, n.d.), Hence it is shared with individuals. This relationship is not neutral, but a learned tendency to respond to an object or person in a specific way. Attitudes have a strong evaluative component such as emotions and feelings of like or dislike. Hence an attitude is directed towards something or someone. An attitude helps with decisions and is a tendency to a certain behaviour. An attitude is formed through experience and influenced by the people around us (Blythe, 2013). Attitudes have a more dynamic nature which means that they are less enduring.



Figure 13: Overview of the definition of the terminology used when talking about scaling deep. Beliefs, values, mindsets, attitude, opinion are difficult to distinguish in reality but looking at the definitions uncovers how they differ from each other. All of them influence our behaviour but we are often not aware of it and how it happens.

Qualities & relationship

QUALITIES



VALUE BELIEF MINDSET ATTITUDE OPINION BEHAVIOR

Figure 14: Five opposing qualities were identified that allow to classify the terms value, belief, mindset, attitude, opinion and behaviour.

RELATIONSHIP

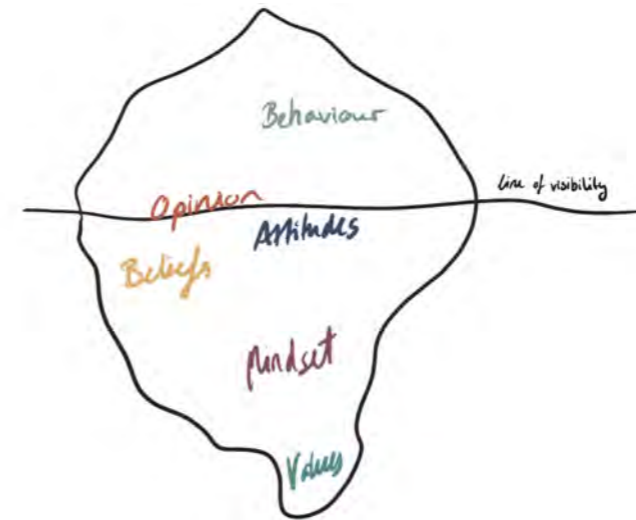


Figure 15: Level of visibility of the different terms. Terms above the line are more visible to others. Terms below the line are more implicit and invisible concepts. Values, mindsets are deep below the line of visibility but beliefs and attitudes are closer to the surface. Opinions and behaviour are above the line of visibility.

Figure 16: The terms organised according to their duration over time. A term that is more enduring is harder to change. This means for example that values and beliefs are very hard to change.

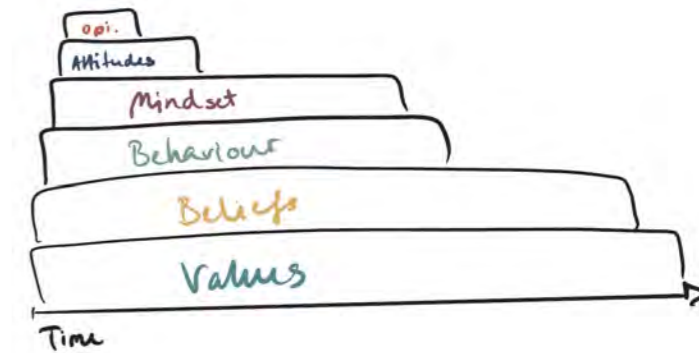


Figure 17: The hierarchy of the terms in regards to a group of people those terms are shared with. Values, beliefs and mindsets are deeply rooted and shared amongst a bigger group.

Opinion - Thought about something...

An opinion is a thought or judgment about someone or something (Opinion, n.d.). It can be a “vocalized expression of an attitude” (Blythe, 2013). They are largely shaped by social influence like, friends, family, co-workers and the mass media, which makes them highly polarised. Like an attitude, has our opinion a direct influence on our behaviour (Moussaïd, Kämmer, Analytis, & Neth, 2013). Once you express your opinion orally or by gestures, the opinion is made explicit and visible. From all the terms, opinion is the concept that is least stable over time.

Behaviour - Actions... in a certain situation

Behaviour is defined as the way someone behaves towards other people or in a certain situation (Behaviour, n.d.). Behaviour is related to routines and habits that we have built over time. But our behaviour can change when the context or situation changes. We learn a certain behaviour pattern from our parents, teacher or friends. The interlink between internal and external factors on behaviours are complex and highly connected. As mentioned before, our behaviour is majorly influenced by the values, beliefs, attitudes, opinions or mindsets we have and can be described as their manifestation. But also other external factors are influencing our behaviour, like society, parents as well as rules and regulations. We can learn or adapt to certain behaviour by imitating people around us.

The connection of the terms

A clear distinction of the terms is only possible on paper while looking at the nuances of the definitions of those terms. In our everyday lives, we do not necessarily make a clear cut between these terms and are often not aware of all the values, beliefs, opinions, attitude or mindsets we hold. Figure 18 brings the terms together and places them in the context of an individual. Values are very deeply rooted in humans, they can be seen as the gut feeling that influence our belief, mindset, behaviour, attitude or opinion. Beliefs are located at the heart, those are assumptions or ideas that we believe to be true. Our mindset is in our head, it is the way we think about something and how we make sense of our surrounding. Our attitude is like an aura that surrounds us that signals our feelings towards something or someone that get verbalised by our opinions. In addition, there is our behaviour that makes our opinion, attitude, way of thinking and values visible and tangible. Mindset, values and beliefs are within a person, meaning that they are more invisible and subconscious. Mindsets seem to be the bridge between the intangible values and the tangible terms of opinion, attitude and behaviour. The terms imply highly complex psychological patterns that are hard to grasp. They get expressed and made visible through our actions, our behaviour but also our language or culture.

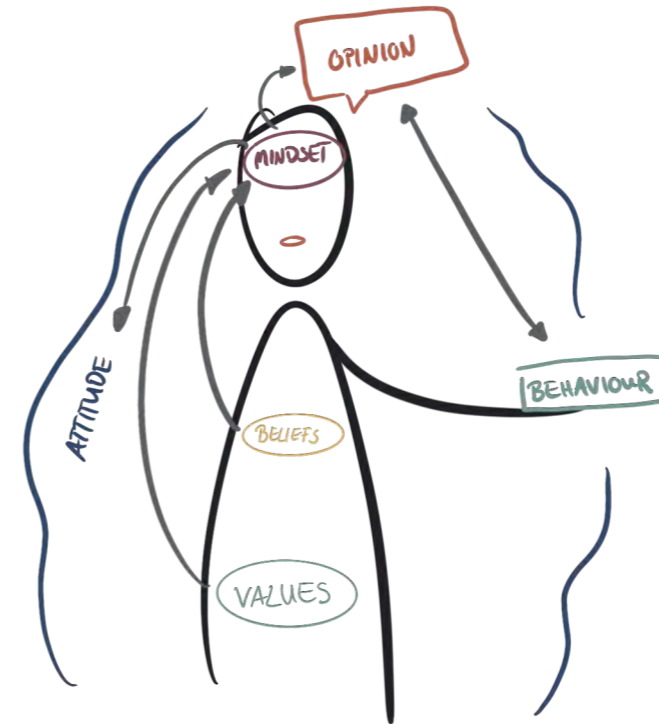


Figure 18: The internal process of scaling deep. All the terms and concepts behind the terminology are interwoven within each individual and influence each other.

Conclusion

In conclusion, we see that these terms are very much interconnected and that one influences the other. The recognition that changing one aspect affects the others is important to keep in mind because this has implications for scaling deep. The challenge however is to find a starting point that offers enough opportunities for intervention and at the same time has the potential to have a lasting impact. Exploring the definitions, qualities and connections of these terms has identified mindsets to be an interesting point to make scaling deep more actionable. Addressing a persons' mindset seems to be a good starting point for a scaling

deep strategy to unfold. This notion is also supported by the literature. Carol Dweck studied how a shift from a fixed towards a growth mindset can have a great effect on students learning behaviour and change their attitude towards their own learning abilities. In addition, she found that a growth mindset can temper structural factors such as socioeconomic background (Claro, Paunesku & Dweck, 2016). This is relevant for the exploration of scaling deep since so far the focus has mostly been on internal psychological factors concerning mindsets. But Dwecks' finding indicates that impacting a persons' mindset has greatly influenced their behaviour despite the circumstances and context they are embedded in. The potential of changing mindsets is also realised in Donella Meadows (2015) research. From the twelve leverage points, she identifies a shift in mindset is the second most effective lever of change (2015; see also Buchanan & Kern, 2017).

Relating the here described insights to the definition of scaling deep (see also chapter 1.3.5), as a shift in values, minds and beliefs we now understand the complexity of this process. **Scaling deep is an internal process** where change has to happen within the person. That means that scaling deep is an implicit and invisible change process. This shift is influenced by others but the change itself needs to happen within the person.

2.1.2 Scaling deep levels

The previous part has shown that scaling deep is an internal process but without specifying how the change happens. Here, the focus is on how this shift is enabled by looking at scaling deep from three different perspectives: micro, meso, macro (see Figure 19). At the micro-level, the transformation of mindsets is presented, adding an exploration of the notion of frames and framing.

The meso-level, looks at the perspective of change in interaction and describes different scaling strategies retrieved from literature. Lastly, a look into social movement formation will give insights into scaling deep at a bigger scale (macro).



Figure 19: Three levels of scaling deep. The first one - micro-level- focuses on the individual, the second level - meso - looks at groups and organisation, where people interact. Level three - macro level - looks at how a bigger group like a social movement scales deep.

Micro-level

This section is looking at scaling deep from a micro-perspective. This is done to understand how change happens in an individual. Therefore the emergence and transformation of mindsets are explored. Next, framing as a design activity is explained because the concept of mindsets and frames show great similarities. But frames and framing are concepts designer are already familiar with so it provides a great starting point that can be used in this thesis.

How do mindsets emerge?

The emergence and shift of a mindset is a complex and long-term process that involves multiple stages. A mindset is created in an iterative process through new experiences, information or interactions that we have and is constantly shaped by and shapes the mindsets of others. Gupta and Govindarajan (2002) explain two basic, simplified scenarios of how a mindset shifts (see Figure 20).

In the first scenario, people with similar mindsets interact and their way of thinking is confirmed. When those two people exchange their thoughts (experience, information, etc.) they reinforce each other's way of thinking. In the second scenario, two people with a different mindset come together, this means new information arises that is not consistent with their current mindset. In this case, they either accept the new perspective and might change their mindset or they reject the new input and keep their way of thinking. Gupta and Govindarajan (2002) as well as Buchanan and Kern (2017) describe

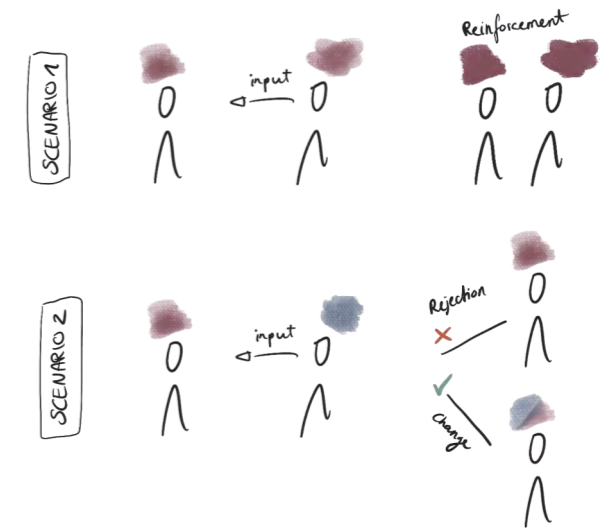


Figure 20: Two scenarios of how mindsets emerge. Scenario 1: Same mindset means reinforcement of that mindset. Scenario 2: People with different mindsets either change their mindset or they reject it and keep their way of thinking.

that the more conscious we are of our way of thinking, the more openly and likely we will change our mindset, especially if we have the right skills and conditions. Creating a favourable situation in which a person can reflect on their mindset is a first step in enabling a mindset shift (Paunesku, 2019). This also means that a person's mindset can be intentionally influenced by another person through various interventions, creating a certain environment or even through subtle nudges like using a specific language (Risänen, Kuusisto, Tuominen & Tirri, 2019). Consequently, the more aware we are of our mindset the more open we are to allow different perspectives and the more likely we are to change our mindset given that the conditions are right. The input or trigger, for example, in form of a new experience, information or interaction allows us to become aware of our way of thinking.

This observation has two implications for scaling deep. First, that a mindset can deliberately be shifted. Second, an important condition for change is being aware of one's way of thinking.

What are strategies to change mindsets?

There are different strategies and approaches to how a mindset can be changed and how a shift can be initiated. A look at some of those strategies will help to understand and design for a mindset transformation.

Social modelling

One strategy can be social modelling (Paunesku, 2019), being a role model for the mindset that you want people to adopt (Rissanen et al., 2019). This also relates back to the role of leaders and the early adopters in the model of diffusion showed in chapter 1.3.3. Social innovators are in a way already role models since they are the ones who initiated a project and aim to engage more people and spread their innovation.

Wise interventions

Walton (2014) proposes the concept of wise interventions that can be everyday experiences that aim to modify peoples' way of thinking. Those wise interventions also take place in the context and ideally do not interrupt the everyday life activities of the person too much but nudges and encourage them to change. The key to those interventions is that they are like small exercises that shall enable change in real-world and real-time-

settings. Wise interventions are an interesting concept in the sense that they provide the idea of small actions that are implemented in the everyday life of people. For example, in a session with a group of people that come from different cultural backgrounds one could ask who the most important person in their life is and then let them compare the responses. Walton (2014) explains that posting these questions causes that there is less tension in the group and more intergroup interactions are happening. Small interventions like this is an important element to consider for making scaling deep more actionable and aligns with Meadows (2015) notion that a small change (trigger) that makes you realise something can have a big impact.

Reflection-in-action

Becoming aware is often a reflective practice. Donald Schön (1983) identifies two forms of reflection: reflection-on-action and reflection- in-action. Reflection-on-action refers to the more known form of reflection where the reflection happens after the event, and one thinks about what has happened retrospectively. The second form - reflection-in-action - the reflection takes place at the same time as the action, so it happens in the moment (Schön,1983). Reflection-in-action has two benefits that are relevant for shifting mindsets and scaling deep. First, the reflective practice happens in the context and moment of the action that means that no long interruption occurs. For social innovations, this can mean that they can reflect and make people reflect on their

mindset in the moment of their interaction. The second benefit is that a small surprise, irritation or unexpected event can trigger the reflection-in-action. This trigger causes the person to react spontaneously and allows them to engage in a more collaborative and open exchange where the conversation can take new directions (Schön,1983).

Visibility/ recognition

A mindset is an implicit, tacit and invisible psychological construct that is expressed subtly and is often not directly communicated as such. However, our mindset can become visible for example, in the language we use, our goals, ambitions or behavioural patterns (Rissanen et al., 2019). Making a mindset tangible and explicit is needed to allow a mindset shift to happen. Therefore the challenge or opportunity for design is to facilitate the articulation of this implicit construct to enable change.

Conclusion

The insights of the four strategies have different meanings for scaling deep and this graduation. On the one hand, we understand that social innovators already apply social modelling since they are seen as the early adopters of the innovation. On the other hand, it is recognised that small interventions can enable a shift that opens interesting opportunities for design to step in. Moreover, becoming aware can happen in-action and in interaction with others. This means that scaling deep can be a collaborative process.

In addition, to become aware of one's mindset it needs to be articulated to enable an exchange of different perspectives.

The opportunity seen here is that social innovations can create those triggers deliberately to enable open and collaborative conversations to happen that allows reflecting on the way of thinking.

To sum it up, the emergence of a mindset is a continuous process of becoming aware of the own mindset, articulating it, getting new input while interacting with others which then facilitates a transformation of a persons' mindset (see Figure 21).

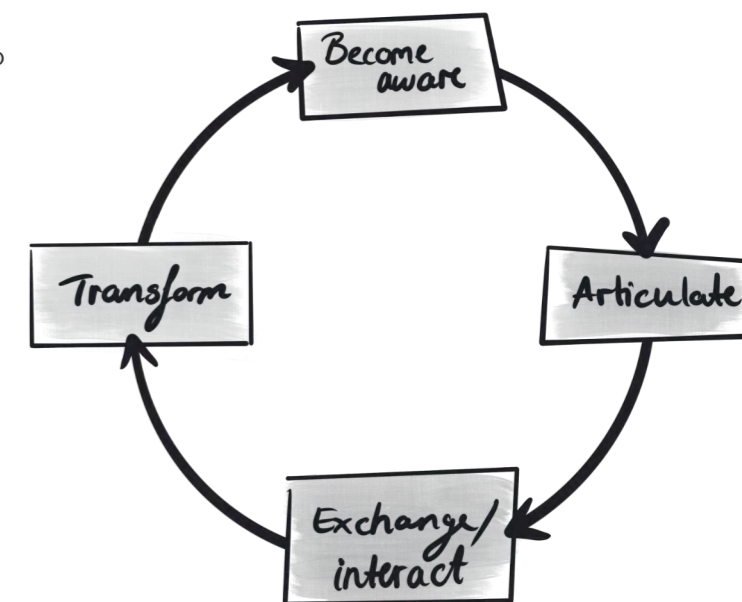


Figure 21: The process of changing mindsets. It starts with becoming aware. Once the peoples way of thinking is articulated an exchange can happen that can lead to a mindset transformation.

Framing

Mindset is only one part of the complex cognitive process that forms and influences our thinking and behaviour. Frames (Dorst, 2011) or mental models (Vink et al., 2019; Bijl-Brouwer & Malcolm, 2020) are similar concepts, but as outlined in chapter 1.3.4. are approaches that design and designers are familiar with. Examining framing allows looking at scaling deep from a design perspective.

Studying the framing literature gives insights on how in teams in the context of social innovations, a shared perspective emerges. Frames are the bridge from the micro to the meso-level of scaling deep and provide a direct connection to complex societal problems and social innovation.

The negotiation of shared frames at the beginning of a new project between project partners allows for better collaboration, which does not mean that frames need to overlap completely but enough to secure a productive collaboration (Hay et al., 2007). What the necessary basic level of common understanding is has yet to be defined. Dorst (2011) states that frame creation is especially useful for an organisation when facing open and complex problems.

Frames, being defined as a set of assumptions, implicit values and goals that define what people consider important and how they perceive problems or take decisions are very much connected to the notion of mindsets, values and beliefs. Likewise, being

implicit, tacit, intangible and subconscious they are hard to identify and express (Hay et al., 2007). Though, frames take a wider perspective and include values, beliefs and mindset that form a specific point of view of an individual. Individual frames are shaped by a persons' background and experience and change over time by social interactions, just like mindsets. The more diverse the team the more different are the frames of each individual.

An overlap between the process of re-framing and the transformation of mindset can be observed. When comparing the processes of mindset emergence showed in the previous part and frame formation by Hay et al. (2007) similarities can be identified (see Figure 22).

(1) Pseudo-frame setting refers to the initial understanding and agreement of the project, like the project name or mission statement. However, individual frames are not expressed yet. (2) Individual frames made explicit is ongoing throughout the project and happens when members express their point of view or expectations during team interactions. (3) Conflicts made salient, means that different, maybe conflicting frames emerge and made explicit. Once differences in individuals frames are noticed the negotiation of common frames (4) can happen. Especially stages 2-4 from both processes overlap greatly. The aspect of recognising the different frames, so seeing differences as a starting point for creating a common frame is interesting.

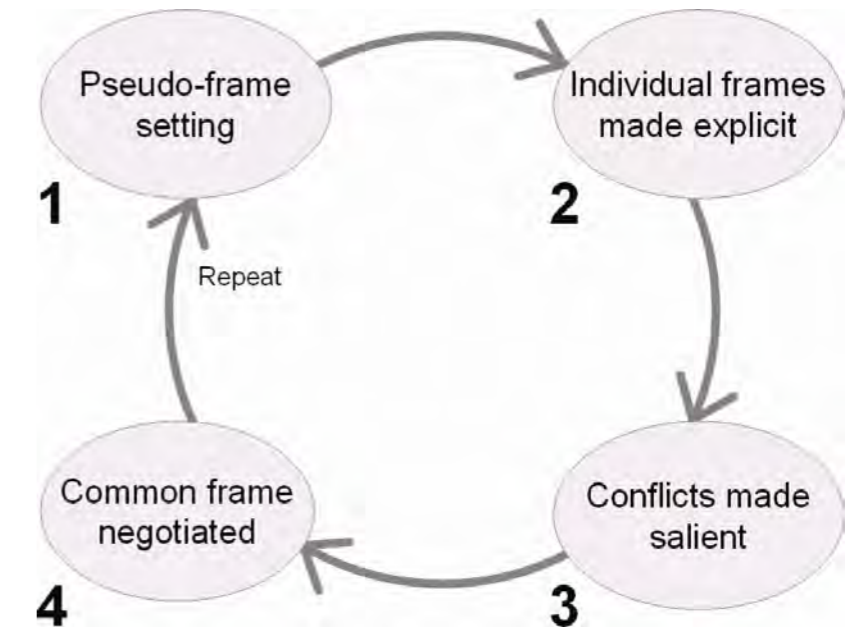


Figure 22: The four phases of the frame formation by Hay et al. (2007).

Conclusion

In sum, frames and mindsets are both seen as mechanisms of how people make sense of the world around them. They are implicit, intangible concepts that follow a similar process to change them: Becoming aware, being confronted with a new frame or a different mindset, expressing it and then rearranging and making new sense of the situation. The importance for scaling deep here is that finding a basic shared frame is important for collaboration, especially at the beginning of a project.

The micro-level perspective helps to better understand transformation processes on an individual level and reveals implications for scaling deep. Those are the importance of becoming aware, that change can be triggered deliberately, in-action, sometimes with a small intervention and that the transformation happens in interaction with others.

Next, the meso-level will be explained to dive a bit deeper into how interactions and collaborations enable change.

Meso-level

Now we are moving from the individual perspective and internal change processes towards scaling deep in a social context. In the following part, three strategies will be highlighted to explain scaling deep on a meso-level.

Shifting an organisational mindset

Gupta and Govindarajan (2002) talk about four primary ways of how an organisational mindset can be shifted. Namely: (1) new experiences; (2) a change in the relative power of different individuals; (3) a change in the organisational and social processes through which members meet and interact with each other and (4) a change in the mix of members comprising the firm such that the mindsets of new members differ from those departing. The first point aligns with Schöns' element of surprise to enable change. Point two and three refer to the creation of the right conditions (Buchanan and Kern, 2017; Paunesku, 2019) which can mean inspecting power relationships with the collaboration partners. Point four is interesting because a new member with a different mindset can become the surprise element or bring the new input that is needed to enable reflection of the own mindset.

Moore and Riddle (2015) describe two ways of scaling deep in the social innovation context: Scaling deep by generating big cultural ideas and scaling deep by investing in transformative learning.



Scaling deep by generating big cultural ideas

This strategy implies that scaling includes changing the story. Changing the narrative that currently exists can affect the culture, beliefs and norms around the social issue. For example, instead of calling people living in a city 'customers' but calling them 'citizens' can change how people see themselves and how a municipality sees and treats people. Behind this shift, is a change in the big cultural idea. Customers are people who just consume whatever is offered while the word citizen includes the context the people are embedded, the city, and portrays a more empowered and participative picture.



Scaling deep by investing in transformative learning

Creating a community of learning is a second strategy that Moore and Riddle (2015) propose. Here, the idea is that through learning communities across a range of sectors and organisations knowledge can be shared and stronger relationships can be built. Methods like mentorship, sharing organisational culture, shared reflection and evaluation practices can be example activities of transformative learning. This learning strategy is seen as a help to embody change. The joint activity enabled building a shared mindset and ensured that the impact of the initiatives is spread deeply into the routines and beliefs of collaboration partners.

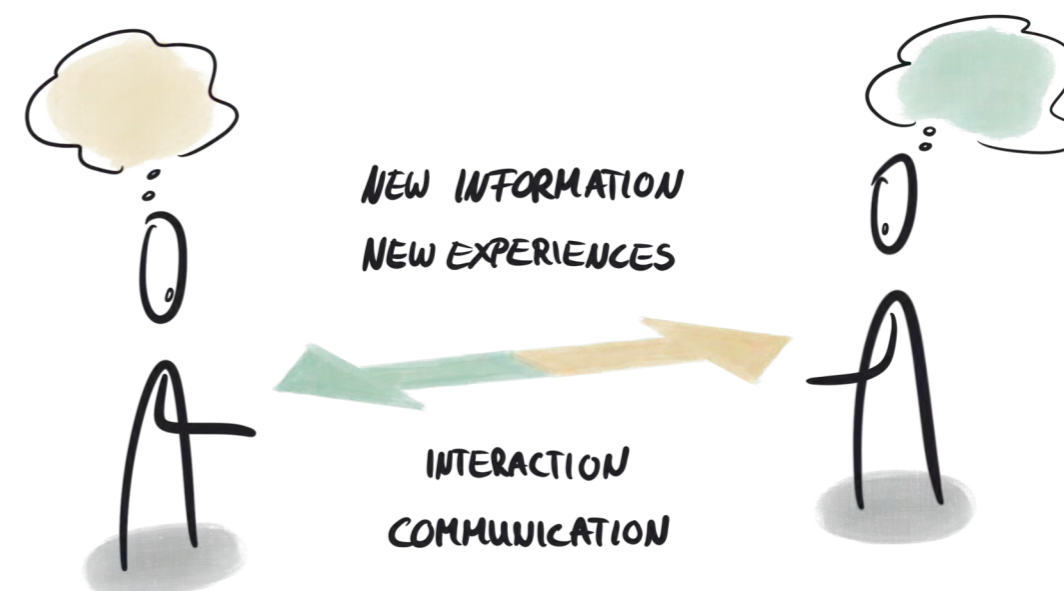
Conclusion

Those strategies highlight the importance of community building and engaging a broad relevant audience to achieve social change. This suggests that engagement and social change are interconnected. In other words, engaging people and "learning" with them as well as presenting an immersive narrative are steps towards scaling deep and social change. Nevertheless, these strategies stay on an abstract level and do not provide actionable steps social innovations can take.

So the opportunity here is to bridge the micro and meso-level in a practical way. That means, to start with making people aware of their frames, mindset and values, acknowledge them and embrace similarities and differences. Then a shared understanding can be co-created that serves as a base for a trusted relationship and productive collaboration.

The meso-level exploration has emphasised that **scaling deep is a social process** (see Figure 23) where change happens in interaction and collaboration with others and can be facilitated by mutual learning and storytelling or the intentional use of specific language.

Figure 23: Scaling deep is a social process. New experiences and information triggers people and change happens in interaction with others.



Macro-level

This part look at the macro-level of scaling deep using social movement formation as an example to better understand change on a societal level.

What can we learn from social movement formation?

There are similarities between social movements and social innovations that allow us to draw connections between the formation of social movements and scaling deep in the context of social innovations. Diani (1992) defines a social movement as “networks of informal interactions between a plurality of individuals, groups and/or organisations, engaged in political or cultural conflicts, on the basis of shared collective identities” (Diani , 1992). Likewise, as discussed in chapter 1.3.3, are networks and community building a key element of success. Both phenomena are aimed to address a social, political or ecological issue that forms a shared vision or goal that unites them. This emphasises the importance of building a network based on trust and a shared understanding. In addition, Van Dyke and Amos (2017) raise interesting points about the formation and success factors of social movements that can be relevant for social innovation and scaling deep. Especially social ties along with ideology and culture are interesting. Strong social ties are based on trusted connections that are formed through personal interaction. Likewise, the role of a “bridge-builder” (Van Dyke & Amos, 2017) is highlighted. This refers to an individual who assists in over-

coming differences between individuals and organisations and who can influence how the collaboration looks like. Ideology and culture refer to the presence of a shared goal or way of thinking. This can be translated into a shared mindset or common ground that builds a starting point for successful collaboration.

Conclusion

Applying the insights from the macro-level exploration to the context of social innovations means that trusted, personal relationships are important as well as having a shared understanding or a shared vision both parties are working towards.

The implications for scaling deep are that the process of scaling deep needs to aim for alignment and a shared understanding. This way the full potential of scaling deep to reach impact at scale can be exploited.

Levels of scaling deep conclusion

Concluding the exploration of different levels of scaling deep it has been acknowledged that **becoming aware in interaction with others, creating the right conditions and finding a way to communicate one’s frame are key elements for the scaling deep process**. This enables a shift but more importantly, also contributes to the creation of a shared frame and a common ground.

The exploration the meso-level emphasises that **scaling deep is a social process** where the collaborative experience and the exchange of new perspectives is important.

Looking into social movements underlines the importance of trusted coalitions, having a mediator person as well as the importance of a shared goal.

Those insights give rise to the thought that in the context of social innovations and scaling deep **the primary goal is not changing peoples mindset but allowing them to become aware of their way of thinking. This allows us to acknowledge and appreciate new perspectives and identifying similarities and differences amongst people. Those steps facilitate finding a shared understanding that builds the base for trusted collaborations.**

In the next section, it will be explained how friction can be an enabler for change.

2.1.3 The role of friction

The role of conflict is recurring in the literature and seems to be relevant for reflection to become aware and enable change. It has been realised by different scholars that friction in the sense of inconsistency, conflict or confronting perspectives, when dealt with, can facilitate self-awareness but also the emergence of a common understanding (see Bijl-Brouwer, 2018; Dorst, 2011; Greenhalgh & Papoutsis, 2019; Hey, Joyce & Beckman, 2007; Strasser et al., 2019; Vink et al., 2019).

One significant cause of change in mental models is an actor's detection of an inconsistency (Khemlani and Johnson-Laird, 2013). When an actor reaches an impasse with their existing pattern of inference, they revise their related mental models minimally or significantly, depending on their explanation (Wason, 1964). (Vink, Edvardsson, Wetter-Edman, & Tronvoll, 2019).

Even though, differences in values, needs, goals and vision can create troubles and hinder progress, Strasser et al. (2019) argue that if the conflict is deliberately approached it can "generate new levels of mutual understanding, empathy or alignment about goals". Likewise, sees Dorst (2011) conflict-

ing frames as a necessity rather than a hurdle for problem-solving since the friction results in a re-framing of the problem situation. Dealing with those paradoxes is what Dorst recognises as a key design capacity. The friction happens because of the confrontation of different perspectives of different actors (Bijl-Brouwer, 2018; Greenhalgh & Papoutsis, 2019) and can be seen as a great lever for change (Hey et al, 2007) when it is addressed (Vink et al., 2019).

Conclusion

Friction can be a catalyst for change.

Being confronted with different perspectives facilitates people to become aware of their implicit

frame. A person's realisation that others have different perspectives causes conflict in their frame because it goes against their current worldview, assumptions and principles and makes them question those (see Figure 24). This friction, however, to become fruitful needs to be made explicit and addressed. Looking at friction in the context of scaling deep provides this notion an interesting starting point to enable social innovations to scale deep.



Figure 24: Scaling deep is facilitated by friction.

2.1.4 Scaling deep definition

My scaling deep definition

Scaling deep is an internal transformation process where implicit, deeply rooted values, beliefs, way of thinking and making sense of the world are addressed, questioned and transformed. The transformation needs to happen within each individual and cannot be forced on someone. However, interaction with others can enable the shift to happen. The process of scaling deep starts with becoming aware of its own implicit frames that need to be made explicit to allow friction between peoples frames to emerge. Conflicting frames facilitate the transformation on an individual and collective level and allow to embody change.

Scaling deep can happen in any interaction between people where individual frames are noticed and cause friction. When scaling deep is done deliberately, however, it allows to actively recognise each others point of view, understand similarities and differences and fosters change and alignment towards common frames. Therefore, scaling deep can be seen as a precondition to finding a shared understanding - common ground. Scaling deep a strategy that, in the context of social innovations, needs to happen in collaboration with stakeholders to raise

awareness of differences in perspectives regarding the project and create alignment with stakeholders on a conceptual level. The shared understanding forms the base for productive collaboration and therefore majorly influences if scaling efforts are rewarded with success.

The main goal of this exploration was to find answers to the questions: "What does scaling deep mean and look like from a theoretical perspective?". The exploration of literature has highlighted the different aspects of scaling deep and illuminated its' relevance to social innovations. The opportunity for design, respectively the application of scaling deep, was found in engaging deliberately in a process of expressing implicit frames to find common ground. The questions that follow this recognition are "How can design deliberately trigger this shift in a productive way? How can design create the right conditions and facilitate individual frames to be articulated and facilitate common ground? Those questions are explored in chapter 4. Moving from the abstract and theoretical realm of scaling deep into a practical context next, the cases and their scaling journeys are explored.

Main takeaways part 2.1

This section started with defining the terminology around scaling deep. Main insights are:

- The terms are internal, implicit concept
- They are interwoven and difficult to distinguish
- **Scaling deep has been recognised as being an internal process**



Next, three different levels of scaling deep were explored resulting in the following main insights:

- A mindset can deliberately be shifted.
- An important condition for change is being aware of one's way of thinking.
- Small interventions can enable a mindset shift.
- Becoming aware can happen in-action.
- Finding a basic shared frame is important for collaborations.
- A mutual learning experience facilitates change.
- The process of scaling deep needs to aim to reach a shared understanding and not forcing one's mindset onto someone.
- **Scaling deep is a social process**



The role of friction was studied and it was identified that:

- Friction can be a catalyst for change.

The last part presents my scaling deep definition:

- Scaling deep is an internal but social process that can be facilitated by friction.



2.2

CASE EXPLORATION

This section looks at scaling deep from a practitioners perspective. First, the ten DESIGNSCAPES cases will be introduced, focusing on their ways of scaling. Then, the context of those innovations is further examined. Lastly, their main struggles I identified will be presented.

Introduction

This section is exploring the ten DESIGNSCAPES cases and their context. The goal is to explore the second sub-question of this thesis: How does or can scaling deep look like from a practitioners perspective?

To give a bit of context on how I arrived at the here described conclusions I will first describe the methodology used to obtain the results.

Methodology

The insights presented in the following sections resulted mainly from these activities:



Training module

In the training module, reflecting on previous projects and experiences was used to identify capabilities that cases already have and can use for the upcoming scaling phase and reveal missing capabilities. The session helped to understand where social innovators see the biggest challenges of their scaling journey.



Semi-structured interviews

The goal of the seven semi-structured interviews was to get a general understanding of the context of the cases, their needs and concerns and identify their scaling process. Some questions guiding the interviews were:

- Who are these social initiatives?
- What is their scaling approach?
- At what stage of the scaling process are they?
- What are their needs & concerns?
- Who are their stakeholders?
- How is the relationship with their stakeholders & within the team?
- How do they interact with stakeholders?



Pizza sessions

In the pizza sessions, the metaphor of making pizza was used to facilitate social innovators in identifying the main aspects needed to scale and align with the participating stakeholder. The goal was to explore how metaphors help people to express tacit, implicit concepts and enable them to verbalise their mindset, values and vision. The session had four main stages. First, making a grocery list by identifying the needed ingredients. This referred to the resources

they need to scale their innovation. Second, going shopping and defining which ingredients they are missing. Those are the resources they do not have yet. Third, making your pizza. Here, each stakeholder created their own pizza, which revealed how they envisioned the scaling outcome and process. In the fourth step, all participants created one pizza together. Here, the goal was to define the joint venture and align on a mission and process. In appendix 3 you can see the Miro board used for the sessions.



Informal calls

The informal calls were Zoom meeting during lunchtime where cases were invited to join and meet each other. During those meetings, the social innovators could bring a topic they want to address or share with the group. They were meant to be a moment of exchange between and learning from the other social innovations. My goal to participate in this calls was to meet and connect with innovators on a more personal level, make them interested in my research and get an understanding of their willingness to participate in research activities.



Document analysis

The documents that were analysed included the DESIGNSCAPES application forms of each case, their websites, Facebook pages and other documents the cases provided. The documents provided general information about the social innovation projects, the organisations behind those projects and the background of the people of those organisations. The document analysis provided a different perspective and completed the picture of the social innovators.

The data was analysed using the method of inductive thematic analysis which allows identifying patterns of meaning across a qualitative data set in a systematic way (Braun & Clarke, 2012). By applying this method to the data collected during the different research activities I identified recurring patterns which lead to the main insights that will be presented here.

2.2.1 DESIGNSCAPES Cases

In this part, the ten selected cases will shortly be introduced. This provides an overview and gives context to the realm the graduation project is placed in. In addition, can we better understand scaling from a practical point of view, how scaling happens in the real world and how it is approached by social innovators? The observation also aims to illuminate which cases are interesting to collaborate closer with for this graduation project. First, the profile of the case will be shown, then it will be highlighted what cases scale and I will end this section presenting the different ways that they scale.

Criteria of DESIGNSCAPES to select the cases was that they address a complex societal problem. On the next pages, the different profiles of the cases give a better understanding of their diversity. In addition to the 3rd call cases, one case from the second call was interviewed since their insights and knowledge were seen as valuable for the project.

Who are the cases, what topics do they address?

Social innovations can be very diverse in their constellation and tackle a variety of different societal challenges. As mentioned before, all ten cases have successfully developed an idea in one context and now aim to scale into a new context. A new context means involving new people to bring their project further, they have to find new partnerships, collaboration partners, provider or suppliers and understand the needs and concerns of the community and local authorities in the new context. However, because of the diversity they face different challenges, approach the scaling differently and scale different elements.

Operating in different countries they tackle similar problems in different ways. For example, case 4 and 9 both aim to fight unemployment amongst youngsters but they have different approaches to it. Case 4 is establishing a community lab where youngsters are empowered to become co-architects of their community and solve problems

they see in their community. Case 9 uses the mean of an entrepreneurial journey where youngsters can participate and travel around their region, connect with local entrepreneur (acting as role-models) and get inspired to build their own business. Comparing the cases that have a similar goal shows that there are multiple approaches to find solutions for complex societal challenges. Some are more focused on product development like case 2 or 6 while others are developing processes or methodologies to engage and empower communities or individuals like case 4 or 9. As diverse as the cases and their topics are, differences can be found in what they scale and how they scale. This will be explored after the overview of the cases profiles.

Profiles DESIGNSCAPES cases

On the next pages, an overview of the cases is given.

The main aspects describing the cases are shown.

Bonus case

2nd call case – Mapping DESIGNSCAPES

Participatory mapping of social innovations
selected by DESIGNSCAPES

Case 1 – Agrolaza

Citizen Laboratory



Bilbao, Spain



7 team members
(women architects)



Global challenge
Climate Change and
Environmental Footprint.



Overall goal
Reformulate the configuration of public spaces. The project is redesigned with local communities to adapt the prototypes to their reality and needs.



Scaling goal
Co-design space with local citizens and other actors. Supply the real needs of local communities by providing them with inclusive, safe and equipped public spaces that encourage meeting and collective learning.

Case 2 – City hearing log

App (Mapping a cities noise pollution)



Rome and Copenhagen,
Italy and Denmark



5 team members (software
developers, ux designer)



Global challenge
Noise pollution and social in-
clusion of people with hearing
disabilities



Overall goal
Offer clear view about noise pollution in cities so that administrators can adopt new policies to improve and protect the urban environment and its sound ecology



Scaling goal
Spread all across Europe. Adaptation to different age groups and cities, in different languages.

Case 3 – Civimetro

Guide for the evaluation of citizen laboratories



San Sebastian, Spain



Overall goal

Evaluation of citizen labs these new civic infrastructures' capacity to activate the territory.



3 team members (designers, architects, facilitators)



Scaling goal

Redefine framework and develop open access blueprint/ guide so that every citizens lab can evaluate themselves



Global challenge

Citizens engagement

Case 5 – Crosswalk

Smart laser technology that improves the visibility of pedestrians crossing



Bratislava, Slovakia



Overall goal

Increase safety for pedestrians



5 team members (soft & hardware developer, programmer)



Scaling goal

Technology viability: Prove that its technology enables a safer street crossing in complex city setting that is inclusive of the needs of the most vulnerable citizens.



Global challenge

Safety for (vulnerable) pedestrians in cities.

Case 4 – Keystone

Community Lab



London and Coimbra, UK and Portugal



Overall goal

Enabling youngsters to become co-architects of their communities. Combat downsides of gentrification like disengagement of NEET youngsters.



8 team members (consultant, youth and community development manager, youth support worker)



Scaling goal

Replicate community lab in two cities London and Coimbra



Global challenge

Disengagement amongst young people (NEET)

Case 6 – Start Park

Co-design process to build resilient ecosystems to climate change



Florence, Italy



Overall goal

Build of a resilient community which would be involved in the co-design of a Green-Blue Infrastructure.



5 team members (designers, facilitators)



Scaling goal

Develop a more accurate toolkit to spread the so-called Start Park Open Factor and involve stakeholders all over Europe in replicating it autonomously.



Global challenge

Green cities, combat climate change

Case 7 – Street Debater

Designing social alternative to begging on the street



Amsterdam, Netherlands



Overall goal

Reconnect homeless people back to society in a dignified manner by encourage them to discontinue begging.



3 team members (interaction designer)



Global challenge
Homelessness



Scaling goal

Mass-produce the product to spread the street debater project to other European cities by partnering with organisation that supports young disadvantaged people to enter the job market, teaching them digital fabrication skills such as 3D printing and laser cutting.

Case 8 – Swinga

Platform where neighbours can connect and borrow under-utilised small capital goods from each other or rent from a local company.



Karlstad, Gothenburg and Stockholm, Sweden



Overall goal

Product sustainability → Sharing economy (in low-income parts of the city)



6 team members (service designers, economists, developers)



Global challenge
Halt overconsumption and strengthening helpfulness and community



Scaling goal

Scale platform to 15 new neighbourhoods in Karlstad, Gothenburg and Stockholm.

Case 9 – Ticket to Change

A program to stimulate young talents to change society through entrepreneurship.



Palermo, Sicily



Overall goal

Organise entrepreneurial journeys in which the participants will engage with the business excellence of the territory and develop meaningful relationships among them while discovering their vocation, enhancing their skills and unleash their creativity.



11 team members (designers, architect & management)



Global challenge

Unemployment amongst young people. 50% of youngsters btw. 18-24 in Sicily



Scaling goal

Recreating & replicating the project from France to Sicily Italy.

Case 10 – T.Ospito

Freemium non-profit service aiming to create a welcoming environment for caregivers

Milan, Italy



Overall goal

Putting caregivers in contact with a local community, to give a non-professional support and create a friendly environment.



7 team members (service & product designers)



Global challenge

Caregivers in Europe face multiple challenges, on financial, emotional, physical and informational levels.



Scaling goal

Creating a digital tool/ platform that would be usable in many different contexts.

The analysis revealed that cases scale different aspects of their innovation. This is presented next.

What are cases scaling?

The different cases scale different aspects, some scale a product, while others scale an idea or a process. What they scale impacts in what way they engage the new context and the way they (can) scale deep.

Scaling a product

Some cases develop a product (physical or digital) like case 2, 5, 7 and 8 (see cases profile) and therefore are their scaling effort more related to technical and usability improvements. This also means that the end-user is only in the development phase in contact with the social innovators but once the product is final the scaling deep has to happen through the product. The scaling is in the hand of the social innovators. They are more in control of how and when they want to scale. For example, case 5: they developed a technical solution for the problem of safety in cities. Especially vulnerable people will benefit from their solution and they might involve them as testers in their

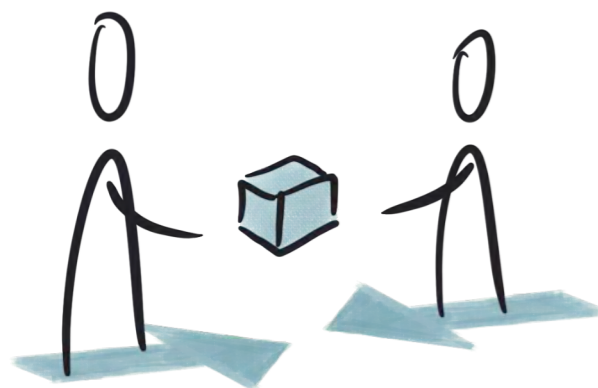


Figure 25: Scaling a product.

development process but from the users' point of view, the solution itself is not directly connected to the innovators (see Figure 25). This means that the innovators have to scale deep using their product. The product is what delivers the message and shall trigger people to transform their way of thinking.

Scaling a product means that there is already a solution that needs to be spread into new contexts but the solution itself will not change a lot. This is different when the object of scaling is an idea or a process.

Scaling an idea or process

Other cases are more focusing on empowerment and enabling communities like case 1, 3, 4, 6, 9 or 10 (see cases profiles). They co-design a solution with the people in the new context. This means that their solution will always involve people as they are a key part of their idea. The context they interact in is more diffuse and the involvement and creation of trusting, long-term relationships is crucial for their success. They have to understand the needs and concerns of the people in the new context and need to involve local authorities to gain their trust and commitment.

“Now we are trying to replicate it in a scale this guide with another Civic Lab (Tabakalera). So next we set a working plan with them, we are going to visit them and get to know the place and the people working there. Then we start to implement Civimetro framework in the cultural centre” (Pascual, case 3, Civimetro)

Their solutions are built on relationships and collaboration, therefore the scaling deep happens through their engagement and interaction with the local community of the new context. Scaling for them means diving deep into the new context, understanding the people and finding a shared understanding as a base for collaboration. The innovators themselves convey the message and are active actors in enabling scaling deep and facilitate others to transform their way of thinking (see Figure 26). Scaling an idea or a process means that you co-create a solution with the new context. This means that one has to create co-ownership and trust to have a successful collaboration and develop a solution together.

Conclusion

In conclusion, we have seen that cases can scale different things which influence how they can scale deep. Scaling a product means that this is the medium that shall enable people to transform their way of thinking indirectly. When scaling an idea or a process, where the solution is co-created with the community in the new context, means that the innovators can facilitate the scaling deep directly. In addition to differences in the medium of scaling a distinction can be made in the ways scaling is approached.



Figure 26: Scaling an idea or process.

How they scale?

The examination of the cases has shown that there are different ways they scale in regards to the ownership of the project.

Keeping ownership

On the one hand, some cases keep the ownership and move with their project into a new context, like case 1 is doing (see Figure 27). They unfold their project first in a city close to Madrid and now want to replicate the project in Bilbao. In their case, they are the ones who get in contact with the local authorities and the local community to co-create solutions in a neighbourhood there. For scaling deep this means that they, as the owners and creators of the original idea, can directly involve in scaling deep activities in the new context.

Figure 27: Keeping ownership means that the social innovator implements the innovation in a new context.

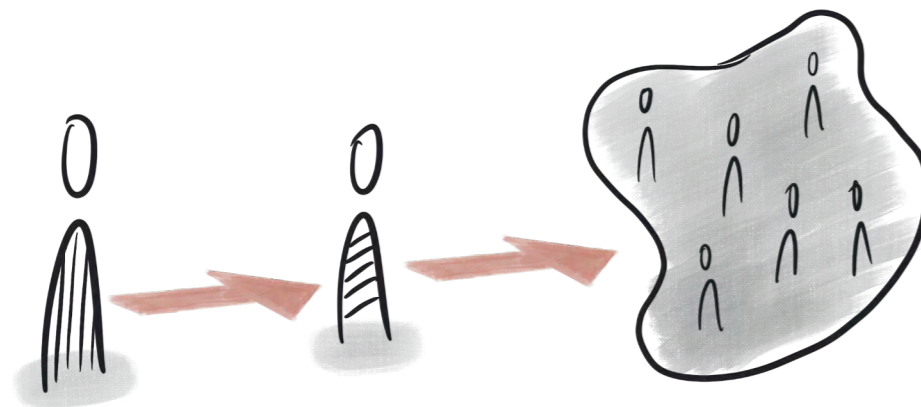
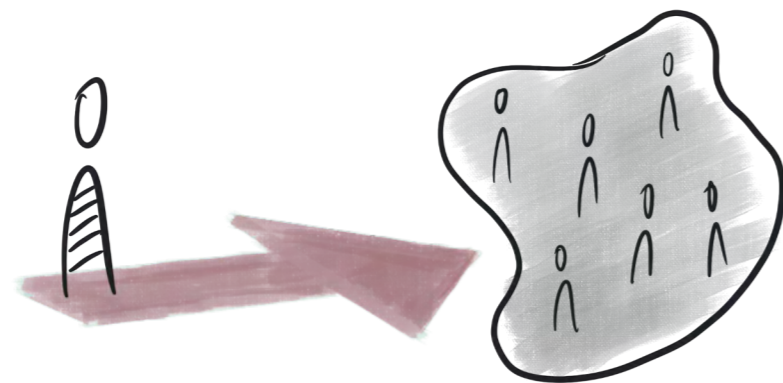


Figure 28: Transferring ownership means that the innovation is passed on to another organisation.

Transferring ownership

On the other hand, some cases adapt a project from a different organisation and apply it in a new context. Case 9 is an example of this situation. The original project was established by an organisation in France, now a studio in Sicily is replicating the project there, so they take over the ownership for the project. This means that they collaborate with the organisation in France to understand the project and then need to engage the community in the new context. So the scaling deep can happen at two points. When moving the project from France to Sicily and then when establishing it in Sicily itself.

In regards to this graduation project, this observation means that scaling deep can happen at different moments in the process and with different people depending on the way the project is scaled. In the first scenario, where the ownership stays with the organisation the scaling deep happens only when entering the new context, while in the second scenario the scaling deep starts earlier when transferring the project and its' ownership to a new organisation. In both cases, the innovators have built new collaborations and engage local communities and authorities.

Conclusion

Looking at these ten cases already elucidates how complex and diffuse the field of social innovations is and makes clear that scaling can take many different shapes. Differentiating the three different types of scaling (out, up, deep) in the real context is difficult since they are so much interwoven and connected. Differences can be found in the way they address the complex societal challenge, what they scale and how they scale. Especially the aspect of what they scale has a big influence on scaling deep.

How cases scale is relevant for scaling deep since it shows starting points for design interventions aiming to facilitate scaling deep. Scaling deep can happen when the idea is implemented into the new context or start before the idea is transferred to a new organisation.

Considering the literature insights about the importance of community building and that one way to approach scaling deep is through interaction with people it is seen as an opportunity and focus point of this graduation to engage with cases that scale an idea or process where the solution is co-created in the new context. Conversely, in the scope of this work, that means that cases' are scaling ambition lies in developing and producing a product, will be less considered. This leads to the following case criteria that help to select from the ten cases those who are relevant for this graduation project:

A scaling deep approach is developed for and with cases ...

- That actively engage with the local community and authorities in a participatory way
- That develop (co-create) a solution with the people in the new context
- Depend on the active engagement and commitment of partners like municipalities or citizen labs
- That need to build new long-term collaborations

For this project, I mainly collaborated with cases 1, 3, 6 and 9. That means that these cases were involved in semi-structured interviews or creative/ evaluation sessions for example.

After having focused on the cases to collaborate closer with they shall be further explored. In order to understand how design can enable them to scale deep a closer look is needed to gain a deeper understanding of the people they involve, the relationships they have and how they interact with them. Throughout the project, those different cases were engaged in interviews or research activities which gave rise to insights that will be presented in the next chapter.

2.2.2 The context of cases

In the following, the context the cases act in shall be outlined. The focus is on the following aspects: Identifying with whom social innovators interact and collaborate, why they interact with them or on what their involvement depends on, how they interact and communicate with them and what forms of alignment they already use. Lastly, the needs and concerns that were identified during interviews and research activities will be presented. This exploration has two goals:

on the one hand, it shall give a better understanding of the context and relationships with stakeholders to outline interdependencies. On the other hand, it shall elucidate aspects that are important to consider when designing for scaling deep since a better understanding of the interaction and relationship they have with their stakeholders allows to design a solution that fits their needs and that is useful and applicable in their context.

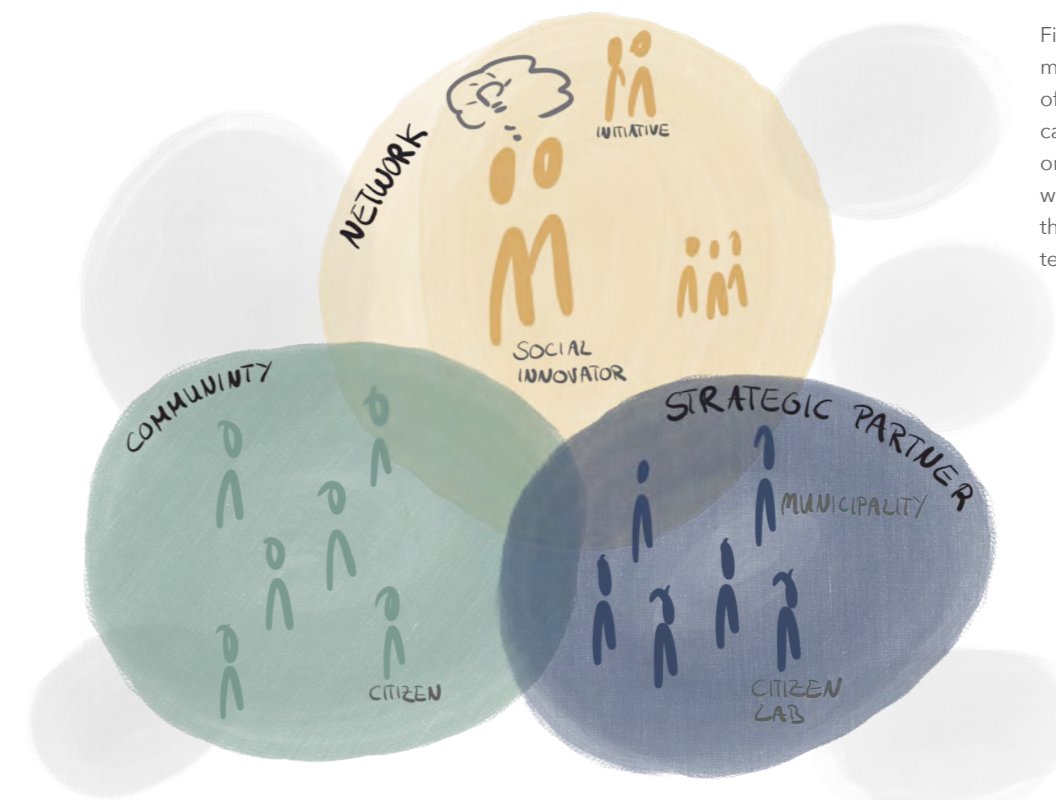


Figure 29: Over view of main stakeholder groups of DESIGNSCAPES cases. The social innovators are part of the network and interact with the community and strategic partners.

Stakeholder groups

Social innovators engage and interact with a variety of different stakeholders to bring their idea to life and sustain it. Although who specifically cases involve is different from case to case, three main stakeholder groups have been identified: (1) community, (2) network, (3) strategic partner (see Figure 29). The examination of the stakeholders revealed insights about their interaction and relationship with those groups but also brought attention to the group that cases most struggle to engage with which makes them an interesting entry point to support social innovators in scaling deep. The three groups are presented below, emphasising how these three groups differ from one another and in terms of cases' dependencies on them.

Community

This group is whom social innovators are mainly designing for and with - their users, customers or target group. People of the community can be citizens in a specific neighbourhood like case 1 and 4 (see also quote on the left) or a target group of a specific region like case 9 (youngsters in Sicily). Cases choose what community they want to address, they choose the context they implement their idea and can adjust their ideas to fit their target group. The interaction is on a voluntary basis from both sides. Social innovators offer something where the community is free to engage in or not.

"We were making workshops about very simple things, like for example 'using the food you have at home to cook' So a lot of people came because it was very linked to their needs and that was nice." (Elisa, case 1, Agroplaza)

As decided in the previous chapter the cases this graduation project is focusing on are cases where a big part of their approach is to engage and co-create

with the community, which means that they have experience in participatory processes and most likely well in facilitation. This is where most of their capacities, knowledge and skills are directed. So they know what they need to do to engage this group and how they need to do it.

For social innovations, it is important to understand the communities needs and concerns to adjust their offer and communication strategy, but alignment on a conceptual level is not always needed: "Now we need to learn the challenges of the context to be able to respond to the needs and concerns of the community and build a tailored and effective communication" (Case 9).

Networks

Behind this group are other organisations or initiatives that work on similar projects - topic wise or process-wise - have similar agendas and often have similar organisational structures. Networks are cases' close collaboration partners. Cases are often part of such networks themselves (see quotes on the right) where they share knowledge, resources or collaborate in projects together. The collaboration is voluntary, social innovators choose who fits the project, this can be based on the capacity that the partner has or the region/location they operate in or because they have similar goals they work towards so they join forces.

Being part of a good network is an important aspect for cases and their ability to scale (see also chapter 1.3.3 about the importance of networks & chapter 1.3.1), however, the DESIGNSCAPES cases seem to be already well connected and embedded in a network, so, they don't need help in finding and connecting those partners. Nevertheless, if they collaborate with a new organisation or team they might want to align with them on the project and identify how the other person thinks.

"Civic Wise network which is a distributed and open network of freelancers, little companies working on civic innovations" (Maje, case 3, Civimetro)

"What we did was also to collaborate with other people that were..they have the knowledge in different things in order to complement the things we didn't know how to do." (Elisa, case 1, Agroplaza)

"People that are from different cultural origins and all that we're all together in this place and they were having all this because we were making workshops around very simple topics like cooking and reducing the food... this way of doing attracted a lot of people" (Elisa, case 1, Agroplaza)

Strategic partner

Municipalities, citizens labs or local authorities can be part of this stakeholder group. Those are often very important stakeholders and cases highly depend on their engagement and commitment. They need them for example to get permissions, access urban spaces in the city, use their resources, acquire financial medium or work together with them because they have similar goals and both aim to serve society.

“The crucial element is to pay attention to the ASP, they are those who have the responsibility of the park where we are going to intervene, they have the management of the park (semi-public)” (Marco, case 6, Start Park)

To establish their solution they require to build a long-term relationship that is built on trust and mutual benefit.

From the interviews with cases it became clear that this is the most challenging stakeholder group to connect with and to engage. On one hand, because they have very different organisational structures and power dynamics, and on the other hand because they have different ways of thinking and working which bring challenges when collaborating.

Social innovators are so dependent on them but struggle to engage and align with them. Here is the potential for scaling deep to add value and facilitate the scaling journey of social innovations.

Conclusions

In summary, social innovators engage with different stakeholders and depend on them in different ways. Community is the group where their solution is directed to. Networks are where innovations are embedded in and reach out to for support or join forces. Strategic partners are stakeholders who have certain decision powers over spaces or resources social innovations need to implement their idea in a new context. The examination has shown that community and networks are stakeholders that social innovators feel comfortable with and have means and know-how on how to engage them, among other things, because the collaboration is voluntary. In contrast, the engagement and commitment of strategic partners seem more tricky and difficult. But the high dependency on this stakeholder group, especially for long-term relationships, makes it crucial to gain their trust and align early in a stage to build a solid base for a smooth collaboration. This notion makes the strategic partners and new network partners aiming for long-term collaborations an interesting prospect for this graduation. For this reason, it is aimed to develop an outcome that serves this insight. Manzini (2015b, pp. 49-50) describes designing coalitions which are a closer network of actors that work together to achieve a shared outcome. In contrast, designing networks are more loose and different actors interact in a less coordinated way and without following the same goal. From this perspective, we can say that this graduation focuses on social innovations designing coalitions.

Struggle to engage new stakeholders

Strategic partner and new network partnerships are the most challenging stakeholder group for social innovators (see Figure 30). They aim to engage with them in long-term collaborations but need to build a trusted relationship first. This is where this graduation project steps in. Aiming to support social innovators overcome this struggle by using scaling deep to align in an early stage on common ground.

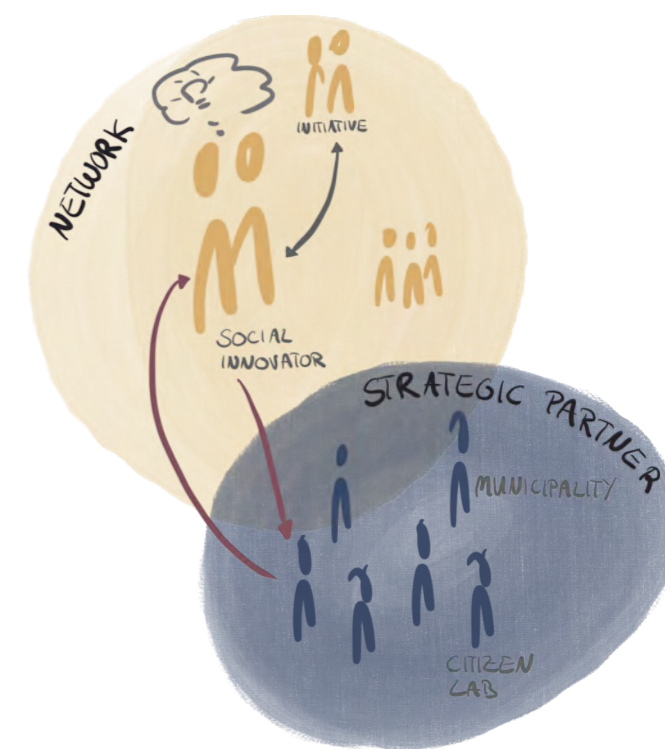


Figure 30: Stakeholder group of interest for this thesis are strategic partners and network partners of social innovators.

Nature of relationship

Stakeholders, in a designing coalition, are an active part in the process. The boundaries between the designing team and the outside context are less clear. This system consists of the people acting in it and their relationships. In order to have productive collaborations, we do not only need to understand the people but also the relationships they have (Bijl-Brouwer, 2018). Therefore, a closer look at the relationship and collaboration between social innovations and their stakeholders will follow.

Starting with reasons for their collaboration, we will move to what it is based on and what is influencing it. Lastly, we will look at how alignment in the relationship looks like for social innovations.

Characteristics of the relationship

The relationship social innovators have with stakeholders is not only characterised by the group they engage with or how they interact and communicate with them but also other influencing factors are relevant to consider. There are different characteristics that a relationship can be described, here, three main categories were identified: (1) Reasons for collaboration, (2) Basis/foundation of collaboration and (3) influencing factors/qualities of the relationship. Diving deeper into the nature of relationships will give insights into what aspects need to be considered when aiming to find a shared understanding.

Reasons to collaborate and build a relationship

The three main reasons that were identified why cases collaborate with stakeholders are resources, status and reach. Being clear on what cases need or wish from their stakeholders and in their collaborations will help to define the solution.

Resources

Resources refer to physical resources like spaces & buildings or financial support but also immaterial resources like knowledge or expertise. For instance, case 9 is working together with a person from the preceding project Ticket to Change France because they want to learn from her experience and expertise in running the project. Likewise, case 1 partnered with an organisation that had specific knowledge about sociocracy, a dynamic governance approach they wanted to apply.

"We can just understand like bypassing the problem if they already faced that before and they already have a solution for it. Guidance, that Josephine [partner from France] brings in, she is like a grandma. That is like super reassuring that brings you back on the right path, each time." (Giulia, case 9, Ticket to Change)

Status

Status includes the power stakeholders have or the influence and impact strategic collaborations can have. For example, the power to give permission or influence a situation or person. An innovator from case 6 reported that they need the commitment of a stakeholder who is managing the park they want to implement their solution. So they have to align on a path that both parties are happy with.

Reach

This refers to partners that help to reach more people or connect one to specific people. This can be the media or partners of the network stakeholder group like in case 3 where one institution of the old context connected them to a new one in the new context. Reach might not be the primary reason to collaborate but can become seen as an additional benefit of having a broad network.

Basis of collaboration

The research has revealed two main aspects - trust and mutual benefit - that are important for collaboration and that are necessities to create a common ground. Both aspects are seen as the base for collaboration.

Trust

Trust needs to be built over time, especially when connecting with new stakeholders. Moreover, when aiming to gain stakeholders' commitment is trust an important ingredient. Building trust was seen as one challenge that cases did foresee when scaling into a new context as it was expressed by cases participating in the 'Reflection training module'. Bijl-Brouwer (2018) also emphasises on the importance of trust between innovators and their stakeholders.

"The institution of the prototype phase connect us with this new institution. Well, now we are speaking with them." (Pascual, case 3, Civimetro)

Well, it's very, very important [the role of trust] like the base of the collaboration. [Trust] is not so easy to get but easy to lose, you need to be careful on the way you communicate things and how you relate. (Elisa, case 1, Agropiazza)

Mutual benefit

In order to have a collaboration that is pleasant and advantageous for both parties, it was mentioned that the collaboration should be based on mutual benefit. That means that both parties have something to offer that enriches the project. Sometimes, it can be very clear what the benefit is that each party contribute but if not that can cause resentment.

"You have to be useful for them and not to be a charge, because if you are a charge they don't want you to work." (Elisa, case 1, Agroplaza)

Relationships can differ depending on/ get influenced by...

The different factors that are presented below, can influence the level of alignment cases' need to establish with their stakeholders or can help to elucidate aspects that need to be worked on and aligned on to build common ground.



Length

The collaboration can differ in length. Meaning that it can move between short and long term collaboration. Short term collaboration can be as little as only one little interaction like asking for permission. A long term relationship is a closer collaboration over a longer period, for the length of one or multiple projects for example. For long-term collaboration, it was seen as necessary to gain an understanding of the organisation, the people and their role first, especially when it might involve working with multiple people from the organisation.



Intimacy

The relationship with the stakeholder can be more formal or informal. It was perceived as refreshing and trust-building to engage with stakeholders also in a more loose, informal way. Usually, cases would have dinner with partners, but they also mentioned that engaging with stakeholders in an activity like the pizza session we did was helping to see different sides of the person and connect on a deeper level.

"It was really fun to see her [Josephine] in a more personal way. We all showed ourselves in a more personal way." (Hanna, case 9, Ticket to Change)



Organisational structure

Having to work with stakeholders that have a different organisational structure was seen as a challenge. Often cases have very flat hierarchies and roles within a team are more dynamic which is different in a more hierarchical organisation. Work with municipalities or city halls for an instant, who are often more hierarchical can become difficult because it might not be clear whom to talk to since there is often not one person dealing with the matters that social innovations need.

"They [city halls] could have a department to work with other agents, they don't have that right now. So you don't have people that work closer to your project. Because they don't have this capacity. The people working there, are not working in this project the way we are, they have their own responsibilities." (Elisa, case 1, Agroplaza)

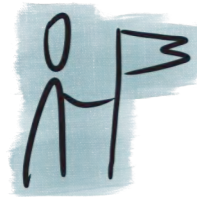


Initiation

Although, social innovations usually initiate a project they sometimes can't implement it if there is no need, nor fit or openness, from the stakeholder (e.g. a municipality). And even if they want to work with you for compliance reasons there needs to be an open call so that more initiatives have the change to apply.

"Because here the city hall needs to tell you that they have a necessity, like an open call or a small competition. They cannot tell you 'I want to you, specifically you to do this for me' it doesn't work like that. So I don't think that is very easy to do." (Elisa, case 1, Agroplaza)

“And I think another role that’s really crucial is the [driver], to put a person into the driver’s seat to take on the project also without me and Giulia being there all the time.” (Hanna, case 9, Ticket to Change)



Ownership

This factor correlates with the levels of interaction. Interacting in a co-decisive way also means sharing the ownership of the project. Another aspect to highlight here

is the way they scale their innovation. Meaning for example, that they develop an open-access solution that anybody can adapt and use like case 3 is planning to do or like case 9 who is aiming to involve people to the extent that the project can run independently, without their engagement at one point, so they hand over the ownership. On the other side, some cases keep ownership of their project and take it from city to city like case 1 and 6 are doing.

“This collaboration started with a very concrete goal, applying for the WDC [World Design Capital]. And what we need to do is to formulate the objectives, the ideas conceptions and strategies. The president of the Association is talking about something which is totally different than what DESIGNSCAPES is saying, but it was the similar goal: to do something new - design enable innovation. So they could have their own explanation which are different from ours.” (Chuan, DESIGNSCAPES partner).



Goals

Another aspect that is influencing the relationship and alignment that cases need to build is depending on whether they have the same goals and ambitions. Having the same goal can be a starting point

for collaboration, hereby it’s not always necessary to have the same path to reach the goal like the Chuan a partner of the consortium was explaining.

Still, having the same goal is not a precondition to start collaboration but is something that can be developed and therefore it was seen as important for cases to realise and recognise the differences their stakeholders have.



Political forces

This factor is something that can majorly influence a project but where cases have little influence. Political forces relate to the political party that is governing the city. Their at-

titude and opinion about what they consider useful and needed in their city is something that cases can barely influence. A change in the governing party can be a barrier but also an enabler. Case 1 explained that because they were working together with the government that was involved in some corruption scandals they also were associated with them which caused that citizens were sceptically to engage in the activities they offered.

This shows that the commitment of local authorities is very fragile and depending on the willingness of the officiating political actors. Additionally, that scaling besides all efforts can fail because of factors that social innovations have little influence on. This makes it even more important to address those sceptical people and trigger a mindset shift.

Conclusion

In conclusions, it has been shown that the relationship between social innovators and their stakeholders is influenced by various factors. The more clear and aligned cases are for example, on the goals or ownership for the project the easier it is to build a trusted relationship.

For scaling deep this means that those factors should be considered in a scaling deep strategy. If they want to have collaboration built on trust and mutual benefits those factors need to be considered and aligned.

“[The response of the public community] was quite controversial in that time because people started thinking that the project itself was part of the [of the local government]. So in the end it was not very well understood and accepted by the community.” (Elisa, case 1, Agropiazza)

Interactions & communication

Social innovations interact and communicate with their different stakeholders in different ways. But also within one stakeholder group, the interaction and communication can vary. So, there is not one way they always interact with a specific stakeholder. Nevertheless, the analysis of the interviews revealed main differences, that were structured into four levels, namely, inform; study and listen; co-create; co-decide (see Figure 31). This classification helped to understand

what needs to be considered when interacting and communicating with the stakeholders. Knowing this allows to deliberately consider stakeholders needs and wishes and makes an alignment easier. So this means that for different levels of interactions with stakeholder different levels of alignment might be needed. The aim is to answer the question: What level of interaction is most suitable for scaling deep? Next, the different levels will be explained, supported by examples to give context to the four levels.

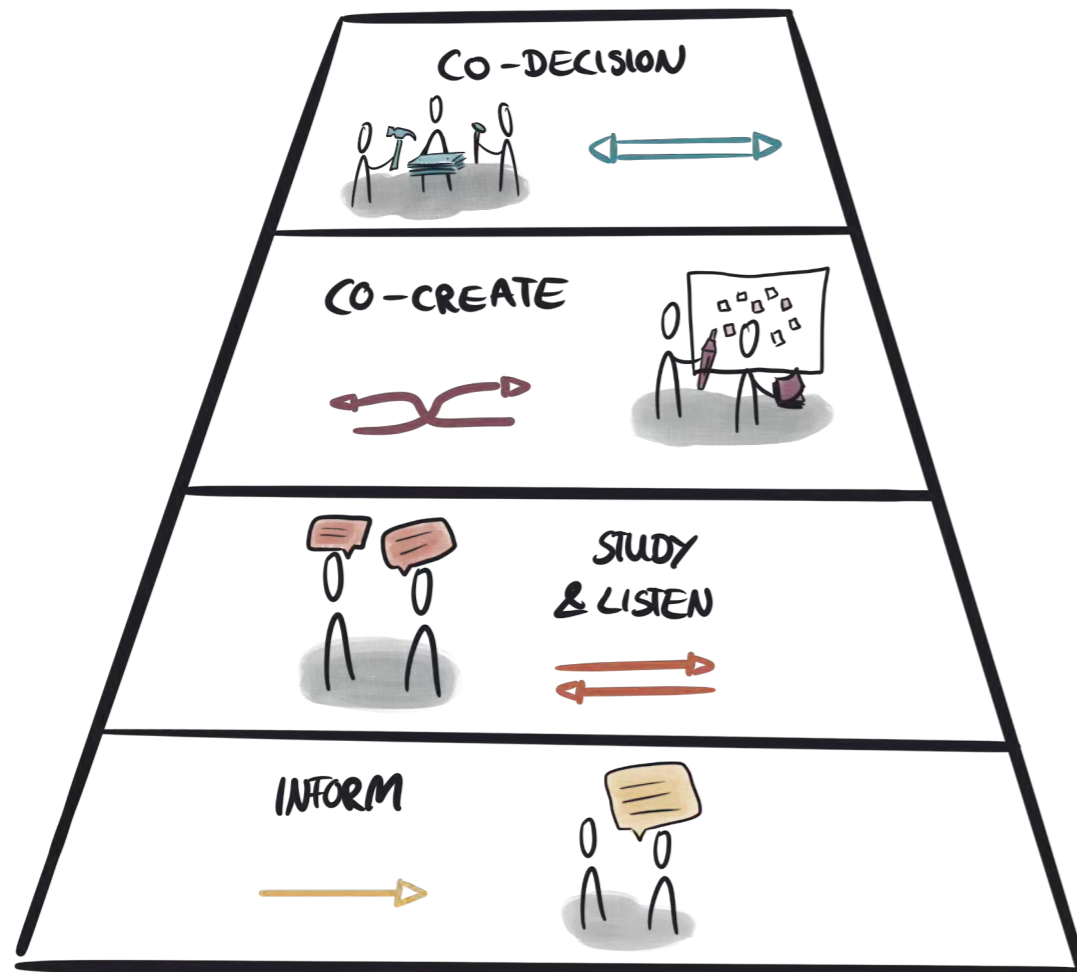


Figure 31: Four levels of interaction.



Co-decision

At this stage, there is a close collaboration where decisions are taken together and the interaction is collaborative (see also Harder et al., 2013). At this level, the responsibilities are shared and a high level of alignment is needed. Everybody in the project takes an equal part in terms of decision power and responsibility. This is often the case when cases work with other initiatives from their network but can also happen with strategic partners. Case 1 for example has worked in an international project with many different organisations where they build a methodology together, like a process for a way of doing things and then applied the methods in different places. Now, they are closely working with the city hall in Bilbao - the new context they want to replicate their project.- and share responsibilities.

“A group of people, like 10 people, more or less from different groups [organisations], so it was a very collective project and we build the methodology, like all together and with a lot of discussions and also trying this out, trying something and then if it doesn't work changing it. [...] It was very linked to the collective thinking of all of us. What we developed a lot was the methodology of the way of doing the project in each place. [...] it was like applying a method to different places” (Elisa, case 1, Agroplaza)



Co-creation

The co-creation stage is where the thinking is done together, so ideas are created together for example and decisions are partly taken together (see also Harder et al., 2013). Here, the insights of the co-creation can influence the decisions of social innovators but the people involved in the co-creation do not necessarily have decision powers or only of some specific aspects. Co-creation can have the form of workshops with citizens or other stakeholders that are facilitated using e.g. templates or canvases to gain their perspective on certain topics or understand their needs and concerns better. The interviews have shown, that through the co-creative activity, stakeholders not familiar with the solution or the idea of the social innovation can gain a deeper understanding which is a signal that they are transforming their way of thinking (see quote). Thus, co-creation is a great

“This was so cool, that [when training people from the municipality] they started explaining to each other what it was. I didn't have to do it all myself anymore. So they started to get it.” (Aldo, bonus case, Mapping)

way to engage people and by letting them experience themselves change their way of thinking. This is where alignment can happen, where similarities and differences have space to be discussed. That means, that social innovations can use co-creation to facilitate the creation of a shared understanding and trigger people to shift their way of thinking.



Study & Listen

Here there is a mutual exchange of information, this stage is about consulting and considering (see also Strassburger & Rieger, 2014). But it's up to the different parties to decide what to do with the new information and it can't be ensured that the received information is understood correctly. Collaboration does usually not go further than having meetings or calls to get their perspective in very specific aspects or pitching your idea in the first place. Collaborating on this level can have its' downsides, as Chuan the DESIGNSCAPES partner described. They presented their idea and from the reaction, they got from the participants they got the impression that they understood what it is about, but then later they realised that the partner had a different understanding and did also transfer their understanding to the people they worked with, so they had to align on the same understanding later in the project. This makes clear that it is very important to align with stakeholders at the beginning of a project since the parties involved will then transfer the message towards their colleagues so it is important to make sure everybody is on the same page and has the same idea in mind (Paton & Dorst, 2011). So, for simple things this level of interaction and communication is apt but when it comes to gaining peoples understanding so, scaling deep it's important to do it in a co-creative manner.

"They need to not only receive this information, but also need to absorb and utilise this information. We were talking on different channels but at one point these channels converged." (Chuan, DESIGN-SCAPES partner)

This observation shows the importance of the creation of common ground at the beginning of a project.



Inform

This stage is a one-way stream. It is about providing information. It is about informing but not necessarily taking the reaction of the other party into account (see also Strassburger & Rieger, 2014). It's a very basic interaction that focuses on delivering a specific message with a specific purpose to a specific target group.

"It was more like a relationship with just showing the city hall the design and they were saying, okay, we like it or we don't like that. It was more about getting the permission of using public space" (Elisa, case 1, Agropiazza)

There is no deeper interaction so this is not a good way to approach scaling deep.

Conclusion

In the end, all levels of interaction and communication happen together with all stakeholders and in all phases of the project (Harder et al., 2013). Being clear and aware of the level social innovations want to interact with their stakeholders and vice versa is relevant because it can avoid misunderstanding and can define the level of alignment needed. It can be clarity about roles and responsibilities.

This classification, on the one hand, helped to better understand how cases interact and communicate with their stakeholders. On the other hand, it revealed implications for scaling deep. Harder et al. (2013) notice that in higher levels of participation mutual learning is given. Referring this back to one of the scaling deep strategies introduced in chapter 2.1.2 'Scaling deep by investing in transformative learning' we can conclude that **scaling deep activities should happen at the co-creation and co-decision level.**

Next, I will outline some underlying issues that I identified during the case exploration.

Underlying problems

The exploration of the cases has resulted in the above-outlined insights including their implications for scaling deep. In this part, I will describe the main struggles I observed and concluded from the analysis of the data. This builds the foundation of my scaling deep process that will be presented in the next chapter.

As shown before, social innovators struggle to build trusted relationships with new stakeholders. Through the analysis, four patterns emerged defining some root causes of the issue (see Figure 32).

Having a different perspective

It has been observed that cases and stakeholder can have a different perspective on the topic which causes misunderstandings because those differences are not communicated. For example, one interview participants mentioned that they see design as an approach while their partners saw it as branding and visual identity. This shows that the different experiences they had with design influence their understanding of it.

Thinking of a different path

Misunderstanding can also happen when people have a different path on how to achieve a goal in mind. Giulia from Ticket for Change mentioned that she considered it important to align on a path to also understand the differences in experiences.

Using a different language

Using a different language means that you have different expectations and consider different things important. This can cause troubles in understanding each other. If those differences are not uncovered it can create chaos and influence the success of the project.

“When we talk about design as an approach, many people talked about design as branding and visual identity.” (Chuan, DESIGNSCAPES partner)

“And to do that, we have to walk on a path together, understanding the imbalance that there is between those kind of experiences”. (Giulia, case 9, Ticket for Change)

“Very different languages. When you come from different communities and you mean different things you find different things important so you get chaos or you get, people think that they collaborate but basically they're drifting apart without realising it until conflicts explode.” (Aldo, bonus case, Mapping)

Having different experiences

Having made different experiences with something influences how you see and perceive things. This also means that they have different needs and ambitions that might not align with yours. For innovators who often are involved with a multitude of stakeholders, this can be challenging since it is difficult to please everybody. Therefore it is important to understand those different experiences and find a common ground.

Conclusion

Those four factors can cause misunderstanding in collaborations. To avoid this it is important to uncover those differences as well as similarities to create a common understanding as a basis for trusted collaborations (Beers et al., 2006) (see also chapter 1.3.3: common ground). Paying attention to relationships and findings a good way to work together is important in the context of social innovations (Greenhalgh & Papoutsis, 2019). Cases have to build a collaborative capacity to deal with the complexity of the problem and context they are embedded, in order to reach collective impact (Moor, 2018). Having those factors in mind we will now move to the next chapter where I present means of how cases already aim to overcome some of their issues.

“Key requirements and challenge of scaling in different contexts is engaging with different stakeholders, policymakers, citizens, experts... each of them has a different problem that wants to be solved, different needs and requests we need to accomplish.” (Case 2, City Hearing Log)

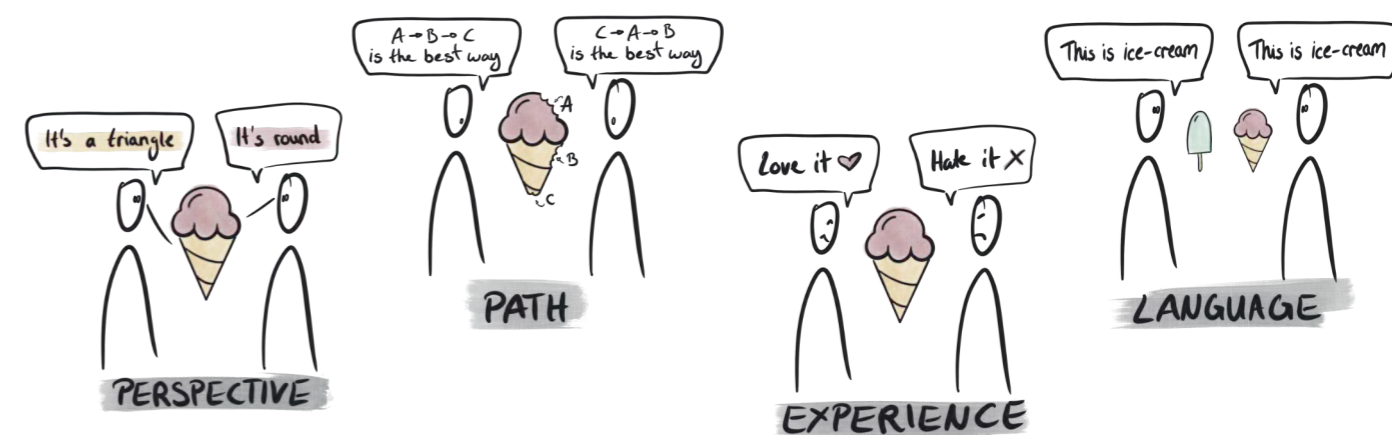


Figure 32: Four main factors that cause misunderstanding between innovators and their stakeholders.

Alignment materialisation

In the following, some insights will be presented that describes how social innovators describe or create alignment. This gives already a better understanding of the skills and abilities but also on the perspective cases have on alignment and challenges that come with it. The guiding question in this part is: How does alignment materialise for the cases at the moment? Different forms that define alignment have been found.

Use of language

Language is an important aspect when creating a common ground. One interview participant mentioned that he realised that talking about Design Enabled Innovation was misunderstood by his partner so he used 'innovation in the urban space' instead because this is where they both had a similar understanding. Another interview participant reported that through participatory mapping the different understandings became explicit and a joint understanding could be generated. Language can be a source of misunderstandings if stakeholders have different meanings of the terms they use. However, it can also be an enabler to create common ground.

Set of tools or methodology

Having a common toolset was seen as one way of common ground (see quote). Aligning on a set of tools can be the first step of alignment and collaboration. Likewise, having a common methodology is one form of how cases created alignment with their collaboration partners. This notion is interesting because it shows that cases align on more tangible things like tools or processes rather than intangible things like values or mindsets.

"We use other words or changed perspectives. We don't mention design enabled innovation, but we're talking about innovation in Urban space, for example, urban planning or design for urban policies and policy design." (Chuan, DESIGNSCAPES partner)

"What we developed a lot was the methodology of the way of doing the project in each place, and we were applying the same methodology." (Pascual, case 3, Civimetro)

Visual mapping

Mapping as a participatory activity is something that one interviewee mentioned doing to create alignment and highlight similarities and differences between organisations or partners. Through visuals and connecting the different parts, a joint picture was created. Hence, working visually and participatory is something cases are familiar with.

Conclusion

Those means to create alignment give already an idea of how innovators efforts to find a shared understanding look like. This has implications for the solution because it shows cases capabilities that can be used in the solution. For example, working visually and making use of specific language or highlighting the importance of language. However, a more deliberate strategy is missing.

In the next chapter, I will present my way of scaling deep that aims to overcome the struggles I presented and help innovators to find alignment with stakeholders.

"And then when you put the matches together and then suddenly you see connections between the match, like that both working with the same organisation, or they're both working on the same agricultural activity or they're both want to work on that same activity." (Aldo, bonus case, Mapping)

Main takeaways part 2.2

I this part the context of the cases is explored and main insights are presented:

- The profiles of the DESIGNSCAPES cases are shown.
- Cases scale either a product or an idea or processes.
- When scaling into a new context, ownership can be transferred to a new organisation or it is kept and the innovators themselves scale into the new context.
- The three main stakeholder groups are communities, networks and strategic partners.
- Building trusted relationships with new partners is a big struggle for social innovators.
- Reasons for innovators to start a new collaboration are resources, status or reach of the stakeholder.
- Collaborations need to be based on mutual benefits and trust.
- The relationship of cases with their stakeholder is influenced by a variety of factors, e.g. organisational structure, ownership or goals.
- The relationship factors need to be addressed to build trusted collaborations.
- Cases engage with their stakeholders on different levels: inform, study & listen, co-create, co-decide.
- **Scaling deep should happen on the co-create level or co-decide level.**
- **Having a different perspective, using a different language, having different experiences and thinking of a different path are causes for misunderstandings.**
- Cases already use some means to find alignment.

03

REVERGING

3.1

CONCEPTUAL FRAMEWORK

In this chapter, I will present my conceptual framework which is my way of scaling social innovations deep.

3.1.1 Bridging the gap

The previous chapter helped to understand the phenomenon of scaling deep from a theoretical and practical point of view and enabled to find a point of intervention in the scaling journey of social innovations. To bridge the gap from theory towards a design a conceptual framework was created which presents my way of scaling deep and builds the foundation for the design phase.

Methodology

The conceptual framework was developed analysing and concluding the findings from the case and theory exploration of the previous chapter. This is what I refer to as 'revert-

ing' which means to revisit and rearrange to reveal and refine the knowledge gathered (Heijne & Van der Meer, 2019). The analysis and conceptualisation model by Sanders & Stappers (2018, p.256) (see Figure 33) describes how qualitative data informed by theory (literature) forms the process of new theory generation and bridges the gap from research to design. The goal of conceptualising the research data is to summarise and communicate learnings to connect data with design opportunities and to move into solution development. Led by this notion a conceptual framework was created that will be presented in the following.

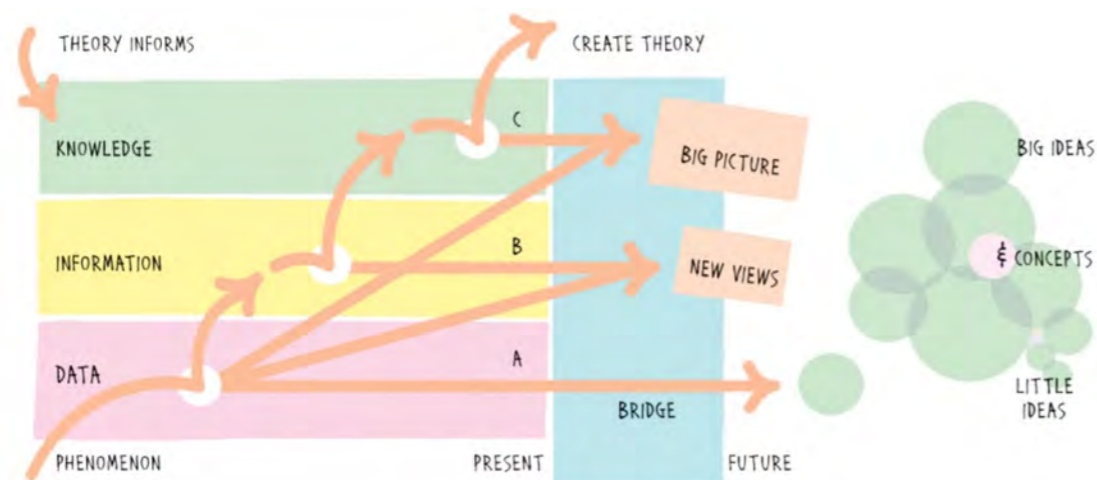


Figure 33: The analysis and conceptualisation model by Sanders & Stappers (2018, p.256).

3.1.2 My way of scaling social innovations deep

The goal of the framework is, on the one hand, to summarise important insights derived from literature and research activities. On the other hand, does it represent the starting point for developing a solution to make scaling deep more actionable.

The framework presents a process proposed in this thesis which shall allow social innovations to scale deep while co-creating a common ground with their stakeholder. In addition to the framework, an indication for the application moment of this framework will be given and the design goal that resulted from the framework creation will be presented.

Fruitful friction towards a common ground

The conceptual framework constitutes a process of how fruitful friction is used to create conceptual and actionable common ground (see Figure 34) and presents a new strategy to enable social innovations to scale deep.

Social innovations are in need to find conceptual and actionable common ground with their stakeholders - designing coalitions - to have a productive and lasting collaboration. As demonstrated in the previous

chapter, changing mindsets or frames start with becoming aware of own implicit frames and recognising other peoples frame. When those tacit, intangible concepts are expressed friction and conflicting frames can be realised which starts the re-framing and collective sense-making process that facilitates the emergence of common ground. Friction is hereby an important lever and trigger for change. There is, however, a condition, namely that the friction needs to be fruitful, meaning that articulated differences (conflicting frames) need to be taken care of and transformed into a new preferably collective understanding. **This process of using friction in a fruitful way is what I call fruitful friction.**

Fruitful friction is the process of causing friction deliberately to engage people in a fruitful sense-making activity that facilitates the emergence of common ground. The friction has two purposes (or forms), first, it is used to trigger people and make them aware of their implicit frames. Second, the emergence and expression of conflicting frames allow seeing similarities and differences in frames which enables negotiation and the creation of a shared understanding.

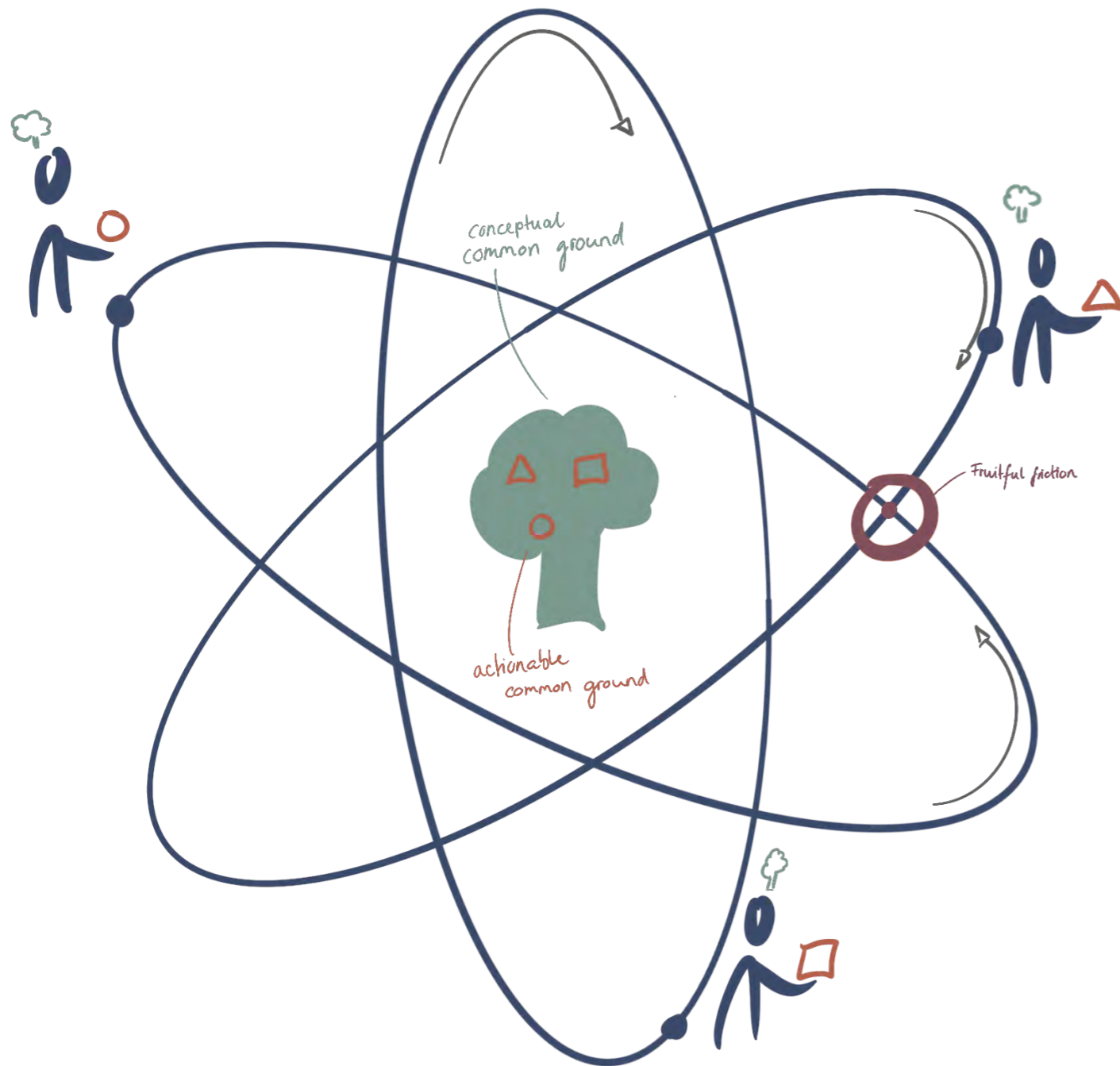


Figure 34: A visual representation of my conceptual framework. This presents my scaling deep process using fruitful friction to reach common ground.

The common ground should be established in a co-creative way to build co-ownership, acceptance and facilitates actors to embody the change. In other words, it is aimed to trigger friction deliberately, enable people to express their implicit frames and facilitate capture of a shared understanding.

To understand the conceptual framework better the metaphor of an atom with electrons and a nucleus is used and a storyboard (see Figure 35) was sketched to explain the process.

The electrons - actors

In the ecosystem of social innovation multiple stakeholder and partners need to be involved for the innovation to scale. The different actors in a social innovation project are represented by the electrons which are in constant movement, moving around the nucleus. Each of them have their own routines, goals, ambitions, organisational structure, resources and views on the issue and solution that social innovation is working on.

The nucleus - common ground

In the middle is the nucleus which is the shared vision that they are all working towards and what unites them. The nucleus represents the shared understanding, it is what all of the individuals have in common and what builds the base for their collaboration. This is divided into a conceptual common ground and an actionable common ground as explained earlier.

Collision points - fruitful friction

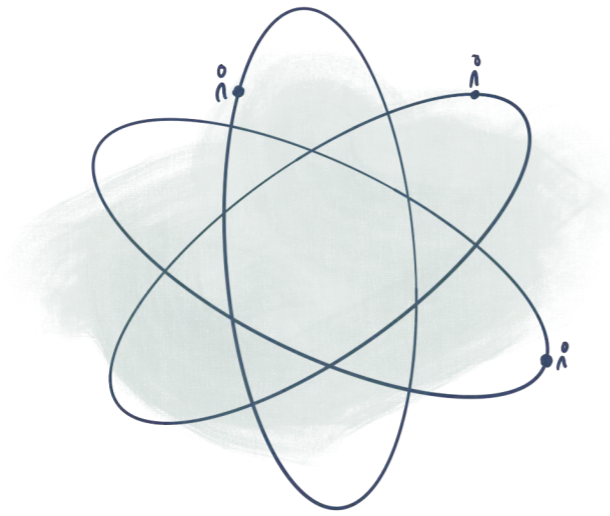
Collision is what enables fruitful friction and also symbolises when fruitful friction should happen. Namely, when new stakeholders meet and common ground needs to be established.

The research has shown that a core aspect and starting point of scaling deep is to create fruitful friction, to make people aware and open to acknowledge different perspectives and then translate those into the common ground which captures the shared understanding. To understand this process the following storyboard illustrates a scenario.

03 Reverting

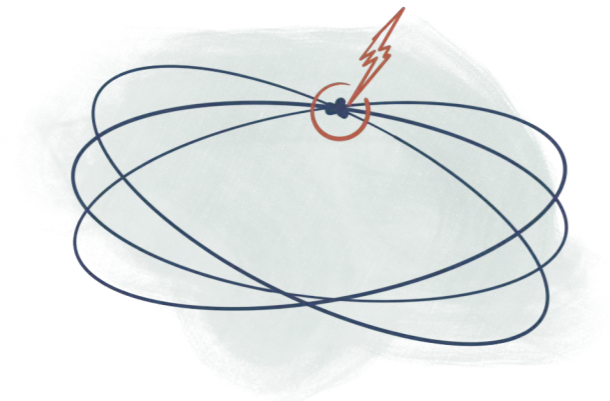
Phase 1 - Initial phase

At the beginning of a new collaboration, there is no clear understanding, everything is blurry. Everyone maybe has a vague idea of the things that unite them and what makes them different but it is not yet expressed, nor is it very clear to themselves. Actors in the project have not deliberately talked about their goals and ambitions, their way of looking at the problem and solution.



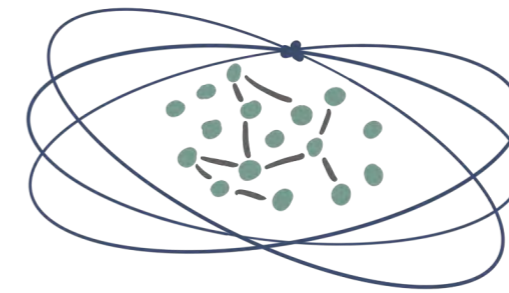
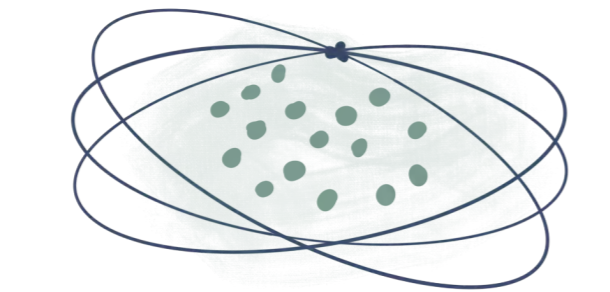
Phase 2 - Friction - become aware & see similarities and differences

When actors come together friction should be triggered to make people aware and reflect on their own way of thinking as well as how others think. This stage is focused on individuals personal reflection in interaction with others.



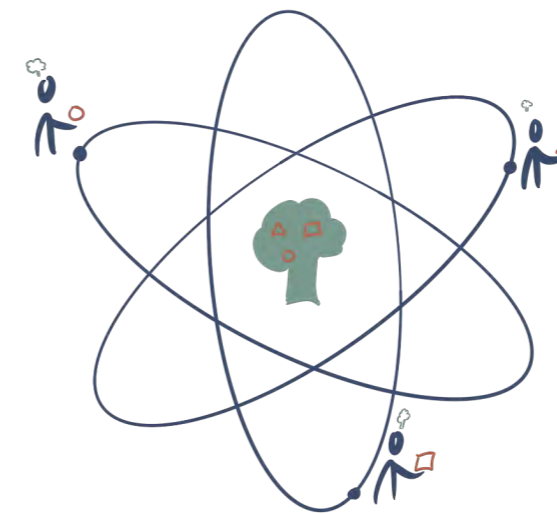
Phase 3 - Express

This phase is about expressing the individuals perspective and acknowledge the different frames to identify similarities and differences.



Phase 4 - Sense-making

Being aware of the different viewpoints is what enables the collective sense-making where a new connection is made and new meaning is created. Here is where a shared understanding is formed and co-created.



Phase 5 - Capture

The newly formed conceptual common ground has to be captured in order to make it actionable for the project.

Figure 35: Storyboard of the fruitful friction towards common ground process.

Scaling deep in this framework starts even before stakeholders align on responsibilities focusing on finding a conceptual common ground that build the baseline for an actionable common ground. The goal is to control when the electrons collide and engage in a fruitful negotiation of different perspectives, followed by a co-creation of a shared understanding.

Moment of scaling deep

It was identified that a necessary condition for social innovations is to expand their network, especially when scaling into a new context where they need to engage new actors, build trusted relationships for lasting collaborations. Hereby, a precondition is a common ground. This means, that the moment, at the beginning of a social innovation scaling efforts, when engaging with new people (in a new context) is central for the success of the project the scaling deep process should be applied. In that situation, it is essential to understand the different perspective of actors and build a common ground as a base to collaborate. This is the stage where the solution to this graduations project will be focused on.

Design goal

The framework reveals the design opportunity to trigger fruitful friction, enable individuals to express their implicit frames and facilitate collective sense-making to reach common ground. This translates into three key stages: trigger, express and capture (see Figure 37). Trigger relates back to the wise interventions (Walton, 2015) and reflection-in-action (Schön, 1983) that are discussed in chapter 2.1.2. A trigger is what should make people aware of their way of thinking and enable reflection. It contributes to starting the internal process of scaling deep. Express refers to the articulation of different perspectives, Hay et al.2(007) notion of making implicit frames explicit (see also chapter 2.1.2: Framing). Capture is related to the creation of common ground as a key condition for achieving impact at scale (Moor,2018; Beers et al.,2006).

The conceptual framework proposes a process of using friction in a fruitful way to facilitate the emergence of common ground. Based on this process the following design goal was formulated:

Trigger people to express their tacit perspective (frame) to facilitate the emergence and capturing of conceptual common ground.

The three stages are used to simplify the abstract conceptual framework. They make it more actionable and understandable for social innovators and create concrete starting points for design. In addition, design criteria were identified that determine some basic condition for the final outcome. Those are presented next.



Figure 36: Scaling deep should start at the beginning of a social innovators scaling journey.

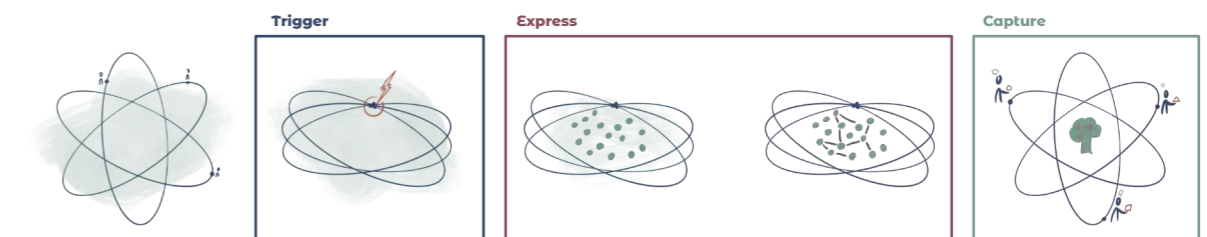


Figure 37: The fruitful friction towards common ground process divided into three stages.

Design criteria

Derived from this examination of cases context in chapter 2.2 design criteria have been derived that determine what needs to be considered for the design of the solution (see Figure 38).

Flexibility in...

The design should be flexible in the sense that it should offer the ability to perform activities that are not very time consuming and can be done quickly during a meeting for example, but it can also entail parts that require more time. This goes along with the flexibility in complexity, meaning that there can be parts that require more resources and preparation or are less complex. Flexible in context refers to the adaptability to different situations and with different stakeholders involved.

Easy to...

The solutions should be easy to understand so that not too much pre-knowledge is required and that it is easy to apply also for people who have little experience in design tools and methods.

Facilitate...

The design should facilitate cases to create a starting trigger that enables people to become aware and communicate implicit things. But there should also be closure in the sense that topics and things that become explicit are discussed, taken into account and made actionable.

In the following chapter, I will dive into the exploration of making the here presented conceptual framework more actionable.

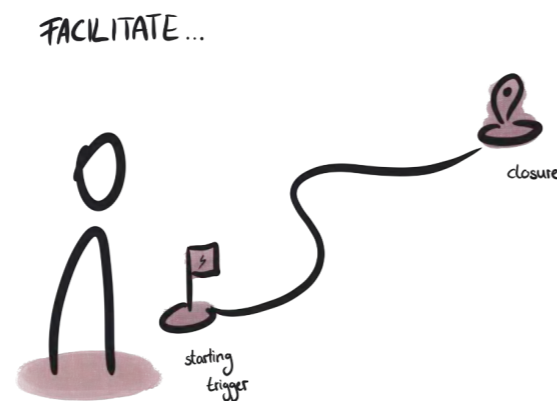
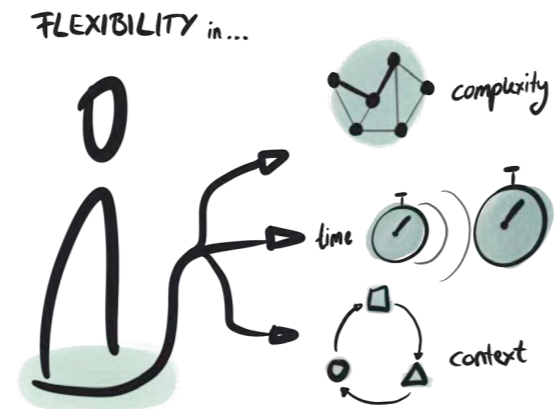


Figure 38: Design criteria defined to guide the solution development.

Conclusion

This chapter ends the first phase of the process described in chapter 1.2.2. So far this report has focused on exploring sub research question one and two:

Sub-RQ 1

What does scaling deep mean and look like from a theoretical perspective?

Sub-RQ2

How does or can scaling deep look like from a practitioners perspective?

The fruitful friction towards common ground process aims to conclude the insights gathered about scaling deep during this exploration. We have seen that scaling deep is an internal and social process that can be facilitated by friction. Furthermore, it has been outlined that the process should happen in a co-creative way and aim to find alignment between innovators and their stakeholders early in the project.

In the next part of the report, I will outline how I examined the third sub-question.

Sub-RQ3

How can design enable the translation of scaling deep into a tangible and actionable strategy?

04

BUILDING

4.1

EXPLORING THE SOLUTION SPACE

In this chapter, I will present the main insights concluded from my qualitative research activities to answer the third research sub-question: How can design enable the translation of scaling deep into a tangible and actionable strategy?

Introduction

The conceptual framework is still abstract and does not allow social innovators to use scaling deep in an actionable way. Here, I will present the main insights that describe how the conceptual framework can be made actionable and how design can facilitate this. The insights are based on the responses of my research participants. Getting a better understanding of peoples personal perspective on fruitful friction and my scaling process helps to identify aspects that can make the process more actionable. The term actionable, in this context, means having a practical value, that is directive and gives insights for implementation, that can be acted upon (Hussain, 2021, March 24).

Before revealing the results I will introduce the methodology used to arrive at the conclusions.

Methodology

The main sources of collecting data were literature research and qualitative research activities. The activities include the pizza sessions described in chapter 2.2. Furthermore, the three ideation sessions, the MVP tests and the two sailing sessions lead to the results. Those activities will be shortly outlined here.



Ideation sessions

The goal of the sessions was to gain different perspectives and explore the different aspects of the design goal. The two main methods used in those sessions were Flower Association and How To's (Heijne & Van der Meer, 2019, pp. 100-103). Flower Association is a way to do the first exploration of key elements related to the context or problem. One word is put in the centre and participants are encouraged to write as many associations down as they can think of related to that word (Heijne & Van der Meer, 2019, pp. 104 - 107). In my sessions, the words trigger, friction and common ground were posted. How To's are questions posed to the participants to get a variety of angles on the problem. People are asked to write down as many ideas as they can think of. How To's help to get a broad spectrum of ideas and perspectives (Heijne & Van der Meer, 2019). In my sessions, participants ideated on those three questions (also see appendix 4):

- How to trigger friction...
- How to articulate a shared understanding...
- How to capture common ground...

The insights gathered help to get inspired and informed the solution development.



MVP tests

The tests were inspired by the rich experience concept of Fokkinga & Desmet (2012). A more detailed explanation of this concept will follow in the next part (4.1.1). During the tests, it was aimed to trigger different negative emotions in a variety of manners to better understand mechanisms that can trigger friction in various ways. In the course of the tests, participants got presented with different trigger artefacts, activities or interventions followed by a discussion about their experience and thoughts. A more in-depth outline of the process and the analysis can be found in appendix 4.



Sailing sessions

The two sailing sessions were a first attempt to define and evaluate a concept and test a way to make the fruitful friction towards common ground process actionable. As the sessions were held after the MVP tests the insights gathered during the tests were respected in the design of the sailing session.

In the sailing session, the metaphor of sailing and exploring a new world is used to reveal peoples way of thinking and their perspective on the project. In addition, a shared understanding is co-created. The session is based on the three stages trigger, express and capture. In the first activity, 'Getting ready', each individual gets triggered to reflect and reveal their way of thinking regarding certain words (e.g. challenges, success of others or collaboration). Participants can choose from a collection of images the one

that they think fits best the word. In a second step, participants are asked to share and reason their choice with the group.

In the second activity, 'Prepare the mission', people get the space to express their perspective of the project. Each participant defines who they are as a captain, what they value, their sailing journey and goal island. Here, participants get building blocks like icons and scribbles to create their journey in a playful way. Afterwards, everybody presents their board. In the third activity, 'Exploring the new world', the participants co-create their joint venture and capture it by defining their north start (Chang, 2019, pp. 32-37), create their goal island and path. The Miro boards used for the sessions can be found in appendix 5.

To evaluate the data inductive thematic analysis was used (Braun & Clarke, 2012). The insights resulting from the interpretation of data have relevance on two levels. On the one hand, they revealed implications for the actionability of scaling deep respectively the conceptual framework. On the other hand, lead the insights to the design of the toolkit and helped to define the different elements.

In the next section, I will present the main insights of the analysis. First, the implications of fruitful friction regarding actionability are presented. Afterwards, the focus will be on the trigger aspect, then on the express aspect and lastly, on the capture aspect.

4.1.1 Actionability of fruitful friction

In this part, it is outlined what actionability for fruitful friction means.

From friction to fruitful friction

One part of the conceptual framework is to use friction in a fruitful way. The research activities have revealed aspects that enable friction to be used and made fruitfully.

The analysis of the data shows that friction has two sides, a negative and a positive one. The moment of friction is often experienced in a negative way. In the moment of experiencing friction, it is seen as an obstacle or a barrier that can create anger, stress and negativity. On the other hand, it has been realised that there are positive sides to friction. After reflecting on the experience it can be seen as something that enables learning and growth.

“Because when I thought about friction. I couldn't remember a situation where the friction itself felt positive to me. [...] I sure have experiences where afterwards the friction, then turn into something good, but the friction itself really never felt positive or maybe I just don't remember.” (Filiz, ideation session 3)

This observation has two implications for the design of an actionable outcome. On the one hand, to achieve fruitful friction the design needs to enable reflection. On the other hand, design can actively use and evoke negative emotions to trigger friction. This phenomenon is also described by Fokkinga and Desmet (2012) as a rich experience. Rich experience is a concept that explores how negative emotions can be made enjoyable. Their framework consists of three parts: negative stimulus, protective frame, and subjective transformation. A negative stimulus can change the persons' perception and attitude in the situation, hence, it is an enabler for change. However, to experience the change positively there needs to be a so-called 'protective frame' this is a mental construct that allows the person to judge the situation differently and transforms the negative emotion into a more positive one (Fokkinga & Desmet, 2012). Fokkinga and Desmet (2012) give an example that makes the protective frame function better understandable. Being confronted with a hungry lion makes you feel fear. However, if the lion is in a cage the situation changes and the feeling most likely shifts into an enjoyable thrill. Here, the cage acts as the protective frame and allows the per-

son to see the situation from a different perspective that changes the negative emotion into a more enjoyable one. The benefits are that rich experiences create meaningful experiences and can increase engagement (Fokkinga & Desmet, 2012).

The implication of the two sides of friction for the actionability of scaling deep is that friction is individual, perceived and dealt with differently by everyone. To make it fruitful should the process end in a positive emotional stage (see Figure 39). Additionally, friction should definitely be triggered on a factual and not personal level.

Conclusion

It can be concluded that design can help to create fruitful friction by using rich experiences, establishing a protective frame and enable reflection. Friction should happen on a factual level to avoid personal hostility and malaise.

Next, the actionability of the trigger is presented.

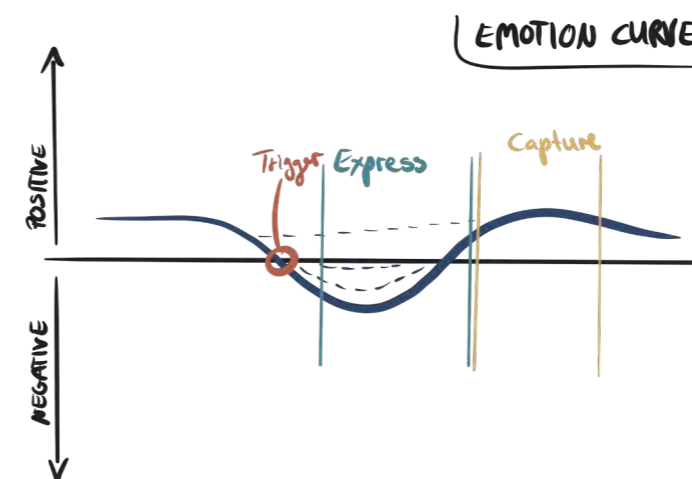


Figure 39: Curve of emotion. For friction to be fruitful the conceptual framework process needs to end in a positive emotional stage. To enable reflection however, evoking negative emotions can be help.

4.1.2 Actionability of TRIGGER

This part focuses on understanding the actionability of the trigger stage and derives implications for the design of a trigger. The question leading this examination is: How can people be triggered to express their tacit frame and what are the implications for the fruitful friction towards common ground process?

H2 trigger

Different aspects have been identified that are relevant for the scaling deep process and the design of a trigger.

Productive trigger

The research has shown that some triggers are more productive than others, so a distinction between destructive triggers and productive triggers is done. Along with this, it has been observed that a more destructive trigger only allows for a reaction while productive triggers leave room for choice to act. **A productive trigger is more like an invitation to action and reflection.**

Two approaches to trigger friction

Two approaches to trigger friction have been identified: (1) Friction emerges in the discussion, (2) Artefact triggers friction. In

some cases, it was the discussion after the intervention that created the friction, while in other cases it was the artefact itself that created the friction. Sometimes, both, the artefact and the discussion triggered friction.

Friction emerges in the discussion

When the discussion created friction the artefact was irritating but that was not demanding enough for people to experience it as friction. This was observed in multiple MVP tests. Although participants might have experienced discomfort the feeling of friction emerged in the discussion afterwards:

"But it's because we are now talking about it that I am more reflective and more like okay, why do I feel it and what are my thoughts." (Eva, participant test 3)

Only after probing them with questions they revealed their thoughts and talked about what was troubling them or what created the friction.

Artefact triggers friction

When the artefact was more provoking it created friction. In test 1 of the MVP tests, the participant was presented with a page of personal pictures with a false headline and a

note to it that this page was shared in a WhatsApp group. The response of the participant shows that this artefact triggered friction:

"Oh good, I don't want anybody to see this, especially in the Dfl groups. Million thoughts, first one: 'Oh no'. Second one, total embarrassment, and the third one, a little bit shocked because obviously, like anybody...a lot of people actually have access to this, but you don't think about it all the time." (Toni, participant test 1)

This intervention worked to provoke negative emotions and make the person feel uncomfortable, however, it did not spark reflection.

Artefact and discussion creates friction

In some cases, the artefact and the discussion caused friction. As can be seen in Figure 40, one participant (MVP test 4) was presented with the same image but with different headlines. The participant was asked to add his own headline. This activity had two effects. First, reading the headlines, that interpret the image in two different ways, already triggered friction:

"This is a very circumstantial situation between what you're seeing and what you're reading or how it's presented to you. How they're trying to present it to you." (Cecar, participant test 2)

Furthermore, the activity of writing an own headline made the participant reflect:

"Do you have like any specification because I can put like various stupid headlines." (Cecar, participant test 2)

Triggering friction in two ways allowed the participant to deepen the reflection towards a more personal level. This observation suggests that a combination of an artefact that triggers friction, followed by a discussion to deepen the reflection is a possible way to trigger fruitful friction. A second conclusion is that the medium is important to consider when triggering friction.

**Child labour!
Kids have to work for up to
16 hours a day.**



**Biological farming!
The Wu family are the most
successful banana farmers.**



**The irony of "success"? According to
privilege standards**



Figure 40: This is one activity done during test 2 to trigger friction. The third headline is the one that the participant created.

Two types of trigger

Two main types of triggers can be distinguished: passive and active triggers.

Passive triggers

Passive triggers are artefacts that do not require a reaction from the person, like a statement in the background (see Figure 41). It is up to the person to act and the trigger is not prompting or involving them actively. Although passive trigger create friction, they are less apt to trigger friction for reflection.



Figure 41: In this activity done in test 2 and 3 the statement was shown as the researchers Zoom background to trigger people.

Active triggers

Active triggers are the ones that invite or require people to act and be involved. With this type of triggers, more people reflected on their personal frames as we saw with the intervention of the headlines. What enforces the reflection, even more, is to present participants with dilemmas where they have to choose between two options. One participant, of MVP test 4, mentioned how hard it was to choose between two options given and that this caused a lot of thinking and reflecting:

"This is like a either this or that situation. And those are always hard because you always want to be in a state where you're like, I would like both of it. I think those questions, that are either this or that really make you reflect." (Vino, participant test 4).

It has been identified that **interventions, where people are actively asked to act**, are the ones that **create more reflection** than the ones that are passive and leave room for the participant to react.

Conclusion

The implications of these observations for the conceptual framework are, that a trigger can be an artefact that causes friction or initiates a discussion that allows friction to emerge. A trigger helps participants to reflect on a deeper level. It is favourable if the trigger is active and directly probes people to get involved. The purpose of the trigger is to push people out of their comfort zone into the learning zone (Senninger, 2000), where they are open to change.

Resulting from this observations some conclusions for designing a trigger can be derived:

Designing triggers for fruitful friction is about...

- **Balance provocation**
 - Should not be offensive
- **Don't get personal, remained factual**
 - Relatable but not personal
 - Friction should be triggered on a factual and not personal level
- **Balance comfort zone**
 - Save space to allow people to comfortably move out of their comfort zone
- **Awareness about topic and medium**
 - Is it the topic e.g. on the image, that should create friction or the artefact?
 - Is the friction targeted at you or the artefact?
- **Consider context and group**
 - Every person reacts differently, personal background and previous experiences influence how people react when facing friction
- **Asking Why?**
 - The conversation about the trigger is what makes people express their way of thinking

In the next part the express stage is explored.

4.1.3 Actionability of EXPRESS

In this section, insights will be presented that have implications for the conceptual framework and the design. The leading question here is: How can people be facilitated in expressing their implicit frames?

The research revealed enablers and barriers to articulate implicit frames. Metaphors, visuals as well as time and space are aspects that facilitate articulation and are important to consider to make the scaling deep process more actionable. Remote working has been identified to be a hurdle. The enablers and barrier will be presented now.

H2 express – enabler

The role of metaphors

Metaphors have been identified as a way to facilitate people to express tacit frames

Metaphors help to articulate implicit frames

Metaphors help to translate tacit concepts into something concrete (Cila, 2013). Using metaphorical language in creative practices are key elements to facilitate people in articulating implicit perspectives (Ortony, 1993, p. 2).

In one of the pizza sessions one participant used metaphorical language to express

what she envisioned and articulated her implicit vision in a metaphorical way:

“Family pizza with individual ingredients for the people that are going to participate in the project. So they will be able to take a slice of it and then to add their favourite topping, their favourite oil but still sharing the main core value that is connected with the entrepreneurship and with the motivation.” (Giulia, case 9, Ticket for Change)

Metaphors help to take a step back

Metaphors help to see new perspectives (Schön in Ortony, 1993, p138). Participants of the pizza sessions reported that the metaphor allowed them to take a step back and see the project from a different perspective and level which made it easier to talk about complex subjects and problems. As one participant mentioned:

“Having these metaphors with food made us think about this problem, the challenges of the project from a different perspective. That is a bit more light.” (Hanna, case 9, Ticket for Change)

“Because we are not directly in concrete things or concrete tools or talking about the challenges of the project, but it's like you take a step back.” (Josephine, stakeholder of Case 9)

Metaphors can be seen as part of the 'protective frame' (Fokkinga & Desmet, 2012) since they allow people to step back and talk through the metaphor. This makes it less personal and therefore it becomes easier for people to express themselves.

The role of visuals

Image and text make frames visible and promote learning

Visuals and working visually make the experience more pleasant and facilitates the expression of implicit perspectives. One participant of an MVP test was indicating that it leaves more room for interpretation and by this allows reflecting on his way of thinking or interpretation:

“The connection I make with it, and I can interpret it in my way and see other things” (Gustavo, participant, test 5).

The images allowed the participant to compare himself to the people in the picture and make analogies to situations or people. Visuals facilitate people to express their implicit frames. This is also supported by Hay et al. (2007) who state that visuals can help to make conflicting frames and assumptions visible. Paivios (2014) dual-coding theory suggests that a combination of visual and textual stimuli promotes learning. Hence, it can be concluded that a combination of images and text facilitate articulation.

Playfulness & engagement

Visuals promote playfulness and engagement (Tschimmel, 2012). This notion has been observed during MVP test 5 where the participant did two exercises that were similar content-wise but used different means. In the first activity, articulation was prompted by asking questions and letting the person write the answer down. In the second exercise, the metaphor of sailing was used with a lot of visuals like scribbles or icons he could play around with (see Figures 42 & 43). The participant liked the second activity better and said:

“I just wanted to say that I prefer this activity to the one above. I just think that it was more organic. Because it just gives you an opportunity to reflect by playing with it in a way. So there's like an aspect of it that feels like a game, but it's not a game right, because at the end it helps to make people come together.” (Gustavo, participant test 5)

The scribbles and icons in Figure 43 served as visual building blocks which encouraged playfulness but also increased engagement. Participants of the sailing sessions used the same board as shown in Figure 43 reported:

“It's super amazing to have these visuals ready. It keeps you there because it's attracting visually, you cannot like write emails in the background, and so that's great I like to be present and in the moment.” (Hanna, Case 9, Ticket for Change)

In sum, visuals are a powerful tool to help people to express and articulate their perspective and talk about intangible concepts.

3. Personal ambition

Think about your personal ambitions. Things that you want to learn or achieve.

Inspire with this project / that this project...



4. Project ambition

Reflect on your ambitions for the project and when would you consider the project to be successful. What aspects or indicators would make it successful?

This project is successful for me if...



5. Collaboration

Reflect on what is important to you when you collaborate with other organisation and stakeholders. How does a good collaboration for you look like?

In collaborations, this is important to me...



5. Interaction & involvement

Think about how you like to interact in this project. How do you want to be involved? How do you see your involvement in this project? Choose the one that you most identify with by placing the arrow ↓ and think about the reason why?

Mostly identify with this type of involvement and interaction...



Figure 42: Section of MVP test 5. The participant was presented with questions about this perspective on a project and could write his answer on the post-its.

Figure 43: Activity of MVP test 5. Participant could play around with the visuals. In contrast to figure 42, here, questions and aspects are presented using visuals and very visual language.

Time & space

The experience of facilitating the pizza and sailing sessions illustrated the importance of giving people time to reflect individually as well as an individual working-space. In those sessions, personal space was given by providing every participant with an own section on the Miro board. The work-space also served as a structure for participants to organise their thoughts. The time to reflect was given by first having an activity where they worked alone and only then starting with a co-creative activity. This enabled people to become aware of their implicit perspective.

Individual time and space help in expressing in the sense that it gives people the chance to make up their mind about what they think before they share it with the group and discuss how they can align. This notion was also realised by a participant of the sailing session:

"I think the individual work here is super powerful because of participation. Because there are always one or two people who tend not to participate or don't know how to express themselves. Either introverts or disinterest or not feeling comfortable. I think, including this part of individual work is really, really great because you create a nice way for people to contribute." (Hanna, Case 9, Ticket for Change)

In conclusion, it is important to give people time and space to organise their thoughts and let them reflect on their perspective.

H2 express – barrier

Remote working

Working more creatively in an online setting can become a barrier. This hurdle occurred especially during the MVP test 4 where it was aimed to use sketching as a mean to facilitate articulation, however, the online format of the test and the task were not ideal for a sketching exercise.

"Yeah, I think, with my experience with Miro, to the minute something is on a board and somebody says "draw", like that's not my first instinct, I just want to type. If you say, for example, take a minute to draw on a piece of paper. I think that works way better." (Vino, participant test 4)

Sketching, however, has been realised to be a very useful way to express peoples personal frames as they manifest their frame in the sketch (Yang et al., 2019). To use sketching productively online it would have been better to make the person sketch on a piece of paper and show the sketch to the camera. An additional note here is, that there is the concern/assumption that people not familiar with sketching and working visually might feel uncomfortable when asked to present their sketches, so this is something that needs to be kept in mind when developing a solution. Especially, because social innovations work with so many different stakeholders from different fields and with different backgrounds.

Conclusion

In conclusions, it has been shown that visuals and metaphors play a key role in facilitating the articulation of implicit frames and therefore can aid the scaling deep process to be more actionable. Dorst (2011) realises that designers make use of visual and verbal forms of metaphors and analogies to enable their clients to negotiate new frames. The abstraction of language happening when using metaphors or analogies is what Dorst (2011) sees as an enabler for the "exploration of deeper situational values" (Dorst, 2011). Hence, abstraction enables the articulation of implicit frames and therefore is one aspect to make the scaling deep more actionable.

Giving people time and space to reflect on their perspective allows them to become aware which is an important step in the scaling deep process (see also chapter 2.1.2). In addition, is this one way to provide a protective frame and make them feel comfortable. Along with this, the medium of the activity should be considered as well as the abilities and backgrounds of the people you want to engage in a scaling deep process.

For the design the observations have the following implications:

Designing to articulate is about...

- **Using metaphors or analogies**
 - Abstraction can help people to express tacit perspectives
- **Providing a frame (working space)**
 - Giving people a dedicated working space gives structure and aid them to express, manifest their thoughts
- **Encourage playfulness**
 - Provide building blocks (e.g. icons)
 - Imperfection probes interaction
- **Encourage thinking and acting visually**
 - Use metaphorical language
 - Use images, scribbles, icons
 - Let people sketch (on paper)
- **Time to reflect and express individually**
 - Dedicate time for individual reflection before engaging in co-creation

In the next part the capture stage will be explored.

4.1.4 Actionability of CAPTURE

In the following part, the actionability of the capture stage is examined. The goal of this stage is to create a shared understanding and common ground. The leading questions of this section are: How to facilitate alignment?; How to best capture common ground?

The first part will focus on defining aspects helping to align and the second part will illuminate ways to capture common ground.

H2 facilitate alignment

Co-creation

As identified before (see chapter 2.2.2) should scaling deep happen in a co-creative way. This is especially relevant when aiming to find alignment with stakeholders. Co-creation is an activity where people can learn together, where they build common knowledge, learn from each other and establish their relationship (Puerari et al., 2018). One aspect, regarding co-creation, that has emerged through the analysis of data collected during the qualitative research activities was the acknowledgement of different perspectives.

Recognising similarities and differences

When co-creating in a scaling deep process it is important to realise and acknowledge the similarities and differences in peoples perspective. One participant in an ideation session mentioned:

“Before to articulate the shared understanding you need to understand the other person perspective and then empathise with that other person by listening to each other.” (Giulia, case 9, Ticket for Change)

Co-creation is a collective sense-making process. Greenhalgh and Papoutsis (2019) state that collective sense-making should be encouraged by “ask questions, admit ignorance, explore paradoxes, exchange different viewpoints, and reflect collectively” (Greenhalgh and Papoutsis, 2019). This allows to identify new connections, give new meanings to experiences and link to actions (see also Kolko, 2009; Weick, Sutcliffe & Obstfeld, 2005).

In sum, this means that before common ground can be captured, similarities and differences have to be uncovered and acknowledged. Realising discrepancies in peoples frames can facilitate alignment.

The process is the goal

An important insight to realise for the conceptual framework is that the value of it lies in the collective action. The outcome, common ground, is only one aspect of scaling deep. More importantly, is the process to arrive there. Aldo from the bonus case who's project was about collective mapping explained in an interview that, from his experience, the process of relating the maps of different groups to each other allowed people to see new connections:

“And then when you put the matches together, then suddenly you see connections between the matches, like that both working with the same organisation, or they're both working on the same agricultural activity [...] So suddenly that got ownership.” (Aldo, bonus case, Mapping)

By collectively making sense and negotiating different frames acceptance and ownership can emerge (Dorst, 2011). In the frame formation process by Hay et al. (2007) illustrated in chapter 2.1.2, the fourth phase also focuses on the joint practice of the ‘negotiation of common frames’. Moor (2018) realises the importance of collaborative sense-making for scaling to reach collective impact. The value and strength of scaling deep lies in the process to achieve common ground. To ease this process the role of the facilitator is important.

Facilitator

In conducting the creative sessions for the research it has been observed that the facilitator plays a special role. The facilitator

guides the process, asks probing questions and facilitates the co-creation process.

During the research activities of this thesis, I took the role of the facilitator. Especially in the sailing sessions, I was the neutral entity who guided participants to create a shared understanding. Meroni (2008) realises the design capability of leading ‘strategic dialogues’ by asking the right questions and guiding conversations towards a shared vision. In particular for creating common frames, Dorst (2011) points out the importance of what he calls ‘language co-creation’ a “dialogical approach [that] uses question and response, as well as representation and reflected re-representation, to create a shared horizon of understanding” (Dorst, 2011). Hence, having a facilitator to guide the process enables alignment.

Conclusion

The implications for the actionability of the capture stage of these observations are that alignment is facilitated by a collective process of sense-making with the help of a facilitator. Actionability to facilitate alignment, therefore, does not mean to arrive at a specific outcome but rather is the emphasis on the process of discovering similarities and differences in peoples perspective and together identify and negotiate the points of alignment.

Now, that we better understand how alignment can be facilitated we will explore how common ground can be captured.

H2 capture common ground

Having emphasised on the process to reach common ground in the previous part, here we will look at aspects that enable to capture the emerging common understanding.

In addition to aspects like visuals and metaphors that have been explained in chapter 4.1.3 other means are also useful to capture common ground in an actionable way. In the following, I present the ones that were explored during the research and influenced or are implemented in the designed outcome that will be presented in the next chapter.

Manifestation of a shared understanding

There are different ways to manifest a shared understanding which will be outlined here.

Boundary object.

A boundary object helps to align different perspectives it focuses on the sub-categories to create a common meaning (Moor, 2018). This can be something more abstract that translates or captures the sub-level of common meaning and can therefore be seen as the conceptual common ground that has been introduced in chapter 1.3.3. In the sailing sessions, this could be for example the Miro board of the third activity, "Exploring the new world", where participants work together and align on the elements promoted on the board (see Figure 44). Also, the common language that emerges through the processes can act as a boundary object since it symbolises the new alignment (Moor, 2018).

Building scenarios

In addition to the more abstract alignment created by a boundary object, enables **building scenarios to transform information and visions into a more tangible outcome** (Meroni, 2008). They can act as an addition to the strategic conversions to establish a shared understanding. Here, metaphors and working visually can be useful to create a scenario. In the last activity of the pizza session participants had to pitch their co-created pizza to us. In doing so they explained their current stage by referring to the fermentation stage of the pizza dough which shows that they used the metaphor to build the scenario of their project phase:

"We have a good mix of individual ingredients and right now we are in the phase of the fermentation of the dough." (Hanna, case 9, Ticket for Change)

This means, that metaphors and visuals not only help to facilitate articulation of implicit frames but also enable to capture common frames. However, when metaphors and visuals are used with the goal to create alignment the aspect of reducing or balancing abstraction is important.

Balance level of abstraction

Abstraction helps to express implicit perspectives as has been outlined in chapter 4.1.3. In the stage of capturing, however, it is important to **reduce the level of abstraction** towards a more concrete level. This can help to reduce room for interpretation, create a more concrete outcome and aid to remem-

ber what has been agreed on better. This has an effect on two levels. On the one hand, can this **enable to create a more tangible common ground** and on the other hand can this **lead to a more memorable learning process**. Here, Paivios' (2014) dual-coding theory of combining images with text becomes even more important.

Creating something tangible

During the different research activities, it has been observed that a **combination of images and text helps to bridge the metaphorical level into something more concrete** and actionable which helped people to be more specific. For example, in the first sailing session, during the co-creation of the common vision (activity 3 'Exploring the new world'), participants only got icons and scribbles and were not specifically asked to write down what they have discussed. This had the effect that their Miro board stayed quite abstract. In contrast, in the second sailing session post-its were added and people were encouraged to write down next to the image what they had agreed on. Already by comparing those two boards visually, we can see that the second one provides more concrete information (see Figures 44 & 45). This way the created common ground is captured in a more tangible way which provides more value and makes the shared understanding more actionable

Creating a lasting learning experience

Applying the dual-coding theory (Paivio, 2014) also has the effect that the outcome and learning experience becomes more memorable. A participant in the sailing session still remembered the pizza workshop where she participated more than three months earlier.

"I think in the long run, I will remember what we did during this workshop also because of the graphic, but also the previous workshop because of the graphics and dimensions of it and they stick to me, and they are inspiring the workshop that we are doing" (Giulia, case 9, Ticket for Change)

The **combination of text and visuals** provides less room for interpretation and **enables to recall learned information more easily** (Paivio, 2014). Seeing scaling deep as a mutual learning process (Moore and Riddle, 2015) the notion of balancing abstraction becomes a quite relevant aspect to make scaling deep actionable. This means that social innovators and their stakeholders can create a joint learning experience that has a lasting impact on their collaboration when they capture their shared understanding by building a scenario that is manifested visually but also in writing. **The combination of visuals and text is what I will further refer to as actionable building blocks.**

EXPLORING THE NEW WORLD

OUR COMMON VISION

Create your own world by placing the different elements provided around the base (continents and oceans). Use the nature elements, signage and others to provide guiding points, meeting areas, activity centers, etc. You can also place pdf files as a presentation document, video files, or video conference links, depending on the purpose.

NAME OF YOUR COMMON MISSION

WHAT MIGHT BE HIDDEN RISKS OR THREATS?

WHAT IS YOUR ASPIRATIONAL VISION? YOUR GUIDING NORTH STAR? THINK ABOUT HOW MANY, TO WHAT EXTEND AND BY WHEN YOU AIM TO ACHIEVE YOUR IMPACT.

WE ASPIRE...

...A STAND ALONE STRUCTURE

...CREATING VALUE FOR PEOPLE

...THE CLICK!

WHO IS THE CAPTAIN? OR DO YOU HAVE MULTIPLE CAPTAINS?



WHAT IS THE BEST ROUTE TO TAKE?



WHERE AND HOW DO YOU START?



WHAT IS IMPORTANT TO YOU IN THE PROJECT?



WHAT VALUES ARE IMPORTANT FOR THIS PROJECT?



WHAT IS THE WIND THAT BRINGS YOUR PROJECT FORWARD?



TICKET FOR CHANGE

HOW DOES YOUR COMMON GOAL LOOK LIKE?



WHAT ARE OBSTACLES THAT YOU MIGHT HAVE TO OVERCOME?



WHAT IS THE BEST WAY TO REACH YOUR GOAL AND NORTH STAR?

Figure 44: Sailing session 01. Participants created a shared journey by mostly only using visuals which resulted in a more abstract outcome.

EXPLORING THE NEW WORLD

OUR COMMON VISION

Create your own world by placing the different elements provided around the base (continents and oceans). Use the nature elements, signage and others to provide guiding points, meeting areas, activity centres, etc. You can also place google images or icons if you need more elements to express your vision, goal and path.

DIFFUSE SP APPROACH AND MAKE IT AUTONOMOUSLY TRAVELLING AMONG COUNTRIES

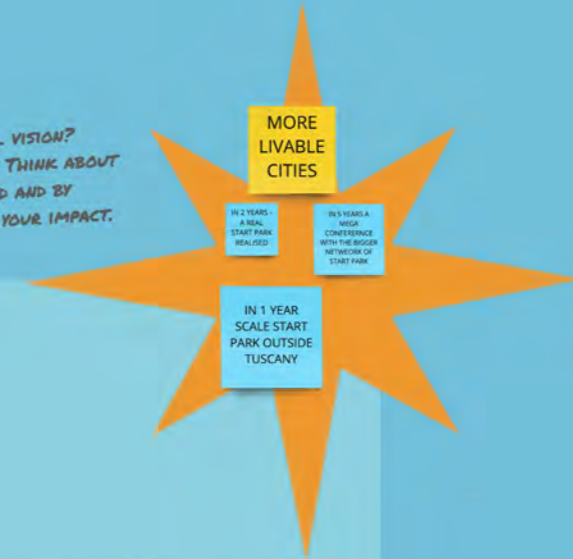
WHO IS THE CAPTAIN? OR DO YOU HAVE MULTIPLE CAPTAINS?



WHAT MIGHT BE HIDDEN RISKS OR THREATS?



WHAT IS YOUR ASPIRATIONAL VISION? YOUR GUIDING NORTH STAR? THINK ABOUT HOW MANY, TO WHAT EXTEND AND BY WHEN YOU AIM TO ACHIEVE YOUR IMPACT.



HOW DOES YOUR COMMON GOAL LOOK LIKE? BUILD THE ISLAND SO THAT IT REPRESENTS YOUR GOAL THAT YOU WANT TO ACHIEVE WITH YOUR PROJECT?



WHICH SHIP(S) DO YOU NEED FOR YOUR MISSION? PLACE IT ON THE HARBOUR.



WHERE AND HOW DO YOU START?



WHAT IS THE BEST ROUTE TO TAKE? DRAW YOUR ROUTE FROM THE HARBOUR TOWARDS THE GOAL.



ANY MILESTONES OR STAGES THAT YOU NEED TO PASS DURING YOUR TRIP?



ARE YOU ALL SITTING IN THE SAME BOAT? OR DO YOU NEED MULTIPLE BOATS WITH DIFFERENT PEOPLE?

SAME

WHAT IS IMPORTANT TO YOU IN THE PROJECT?



WHAT VALUES ARE IMPORTANT FOR THIS PROJECT? CHOOSE THE VALUES FROM THE PREVIOUS BOARDS THAT YOU ALIGN ON AND PLACE THEM HERE.



WHAT IS THE WIND THAT BRINGS YOUR PROJECT FORWARD?



WHAT ARE OBSTACLES THAT YOU MIGHT HAVE TO OVERCOME?



Figure 45: Sailing session 02. Participant created a shared journey by using visuals and text which resulted in a more concrete and tangible outcome.

Conclusion

In this part, the actionability of the capture stage has been explored. It has been outlined that alignment is facilitated by a collective sense-making process where differences in perspectives are discussed. This will help social innovators to negotiate common ground. Furthermore, it has been discussed that the process to achieve common ground is as important as capturing common ground. Hereby, a facilitator can take the role of guiding the process. Considering those aspects in a scaling deep journey can make it more actionable.

Next, aspects have been summarised that help to capture common ground. Here, it is important to manifest the shared understanding for example by creating a boundary object or make use of scenarios. To increase the actionability of the capturing stage it is useful to balance respectively reduce the level of abstraction. This will help to create more tangible results and enable a lasting learning experience.

In conclusion, **implications for the actionability of the conceptual framework that the emphasis is on the collective process to arrive at a common ground.**

For design, the following main conclusions have been made:

Designing to capture is about...

- **Co-creation of a shared understanding**
 - Fruitful discussions
 - Emphasis on the process not the outcome
- **Having a facilitator**
 - Neutral party
 - Guiding the process
- **Manifesting common ground**
 - Providing a frame or structure in which common ground can be captured
 - Using scenarios or storytelling
 - Using metaphors
 - Using visuals
- **Actionable building blocks**
 - Combining text and visuals helps to reduce the level of abstraction

This exploration builds the basis for the toolkit that is exhibited in the next chapter. The toolkit presents an example of how the insights could be translated into a design that social innovators can use to follow the scaling deep strategy.

Main takeaways

This chapter started with explaining how the concept of fruitful friction can become more actionable. The following main conclusions have been derived:

- Friction is bilateral, it can be experienced negative but also lead to personal growth.
- The scaling deep process should end in a positive emotional stage to enable it to be fruitful.
- Provoking negative emotions within a protective frame can enable change and reflection.

Next, the actionability of the trigger stage was studied which resulted in the following main insights:

- A trigger should be an invitation to act and reflect on personal frames.
- Having two trigger stimuli, the artefact and the discussion afterwards, is a way to deepen the reflection.

In the part where the actionability of the express stage is outlined these takeaways are concluded:

- Metaphors help to express implicit frames.
- Metaphors help to take a step back.
- Using metaphors can be part of the protective frame that helps people to experience friction in a fruitful way.
- A combination of image and text facilitate to articulate implicit frames and promote learning
- Visual building blocks promote playfulness and engagement.
- Giving people time to reflect individually is important to become aware of ones perspective.

Lastly, this chapter ends with identifying aspects that help to align and capture common ground. Main insights here are:

- Recognising and acknowledge similarities and differences that emerged is important to facilitate alignment.
- Engaging in a collective sense-making creates ownership and acceptance.
- The value and strength of scaling deep lies in the process to achieve common ground.
- A facilitator can help to guide the process and ladder participants responses by asking questions to enable alignment.
- Common ground can be captured by establishing a boundary object (e.g. space to note down aligned results or defining terms and language for the project).
- Building scenarios helps to transform information and visions into a more tangible outcome.
- Reducing the level of abstraction enable to create a more tangible common ground.
- Reducing the level of abstraction can lead to a more memorable learning process.
- A combination of images and text helps to bridge the metaphorical level into something more concrete.
- A combination of images and text helps to memorise what has been agreed on.

05

TRANSLATING

5.1

EXPLAINING THE TOOLKIT

In this part, I will show the different elements of the toolkit. First, I will explain the outline of the toolkit, then I will explain the three main elements the toolkit contains: guidebook, preparation board & workshop template.

Introduction

In the following chapter the toolkit “Are we on the same page?” will be introduced. The toolkit is the results of my research through design approach and the other design-research activity I conducted. With the toolkit, I translate the insights into a tool that brings practical value to social innovators. It serves as one example of how fruitful friction can be used as a strategy to enable social innovators to scale deep. With this toolkit I aim to provide an answer to the second part of my main research question to conclusively answer it as a whole:

How can design be used to transform the abstract and theoretical concept of scaling deep into something more tangible and implementable in order to make it usable for social innovations?

This chapter starts with an outline and overview of the toolkit and then dives into its’ details.



5.1.1 Outline of the toolkit

To translate the research findings of this thesis into an actionable solution for social innovators the toolkit “Are we on the same page?” has been developed. This toolkit helps social innovations to apply the scaling deep approach of using fruitful friction to achieve common ground. It does so by facilitating and training social innovations to set up an online workshop to co-create a common ground with their stakeholders. Next, an outline of the toolkit context is given.

The goal of the toolkit

The goal of the tool is to enable social innovators to co-create common ground with their long-term collaboration partners to facilitate a deep mutual understanding as a basis for productive collaboration. The toolkit provides structure and guidance to use the concept of fruitful friction and enables innovators to create a customised alignment workshop to embark on a scaling deep towards the common ground journey.

The goal of the workshop

The goal of the online workshop is to make people aware of their own and others way of thinking to identify similarities and differences in perspectives and co-create a

common understanding. It is a tool to connect and communicate with stakeholders on a deeper level that leads to meaningful relationship and impacts each individuals way of thinking.

For whom is it?

The toolkit is developed for designing coalitions, a network of actors that work together to achieve a shared outcome (Manzini, 2015b, pp. 49-50). Concretely, this toolkit is for social innovators that need or want to engage new stakeholders in their project. It is designed for collaborations where alignment on a fundamental level is important.

When will it be used?

The toolkit is designed for innovations that move into a new context or transfer their idea to a new organisation. Primarily, the alignment should happen at the beginning of a new collaboration, hence this is when the toolkit is first used. Beyond that, there are other scenarios in this toolkit that can be used. For example, when there is a sense of conflict between the partners or throughout the process to reevaluate and reassure that people are still on the same page and that there is a shared understand-

ing about important project topics. Frames are not steady (Hay et al. 2007) nor is common ground, frames reshape as the project proceeds, which means that a realignment might be needed once noticing that the shared understanding is driving apart during the process.

Why is it useful?

The process allows social innovators to understand their stakeholders' implicit perspectives (how people think, what they value and consider important) and creates a space for fruitful discussions of the different point of views. Similarities and differences of individuals perspectives are made explicit and the creation of a shared understanding (regarding the project goal and vision is created). This process builds trust and co-ownership between partners and prevents misunderstandings about basic concepts of the collaboration that otherwise, might emerge unnoticed in later stages of the project and cause troubles. Therefore, it builds the base for productive collaboration.

Benefits

Using this toolkit and conducting an alignment workshop can help innovators to uncover if they have the same perspective on the project if they have had similar experiences, if they use the same language or if they have the same path in mind to tackle the project objective (see Figure 46).



Figure 46: Possible benefits when doing the workshop.



Possible outcomes

Concrete outcomes of this process might be alignment on a common vision and goal, clarity about how the interaction will look like, shared values, shared language, an idea of a common path or challenges parties do foresee.



How will it be used?

The toolkit can be used independently by social innovators. A training session, however, where innovators get guided through the steps and trained in the process to experience the workshop first hand before applying it themselves, is seen as useful and can also provide a platform for social innovators to ask questions and avoid uncertainty. This is especially useful for cases that have little experience in facilitation. Having a person who facilitates the workshop and is not involved content-wise is beneficial.

5.1.2 Overview of the toolkit

In this section, I will first give an overview of the main components of the toolkit and then dive into the different parts in more detail.

The toolkit consists of three parts: (1) guidebook, (2) preparation board (Miro), (3) Miro workshop template and is meant to be an addition to an initial training session where innovators learn and practice the application of the process. After the training, this toolkit can be used to recall information from the training and supports social innovators in building the workshop.

1. Guidebook

The guidebook is a document that gives a general overview of the toolkit and provides some context information. In the document, a short theoretical background about scaling social innovations and scaling deep is given and the conceptual framework is explained. This is followed by a step-wise guide to build and prepare the workshop. More specific information about the three main elements of the workshop (trigger, express, capture) is given. For each of the three elements, the purpose and application will be described as well as what to consider when designing an activity for the corresponding element. This guidebook is especially useful when using the toolkit for the first time as it gives a more detailed explanation. People that are already familiar with the fruitful friction towards common ground concept and workshop can directly make use of the preparation board.

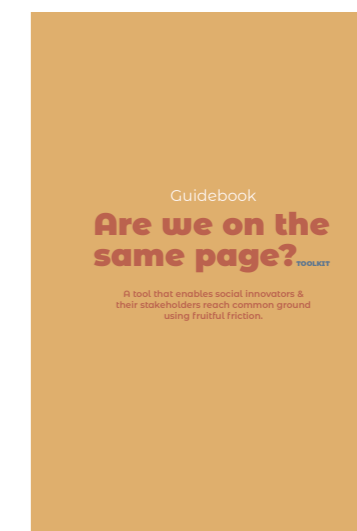


Figure 47: Cover page of the guidebook.

2. Preparation board (Miro)

The preparation board is a Miro board for the social innovators' team who build and conduct the workshop. The purpose of the preparation board is to provide a space in the same medium as the workshop, in this case, a Miro board, where the social innovators can do activities that help them to prepare the workshop. This document is not meant to be shared with the stakeholder.

The social innovators' team (and/or the facilitator) can use the preparation board before every session to identify who should participate, what the focus of the workshop should be and prepare the different components of the workshop. In the preparation board, the different elements of the workshop will be explained in detail and ways to adjust and build them are given.

Link to the Miro preparation board:
<https://miro.com/app/board/o9JlPQM-Mo8=/>

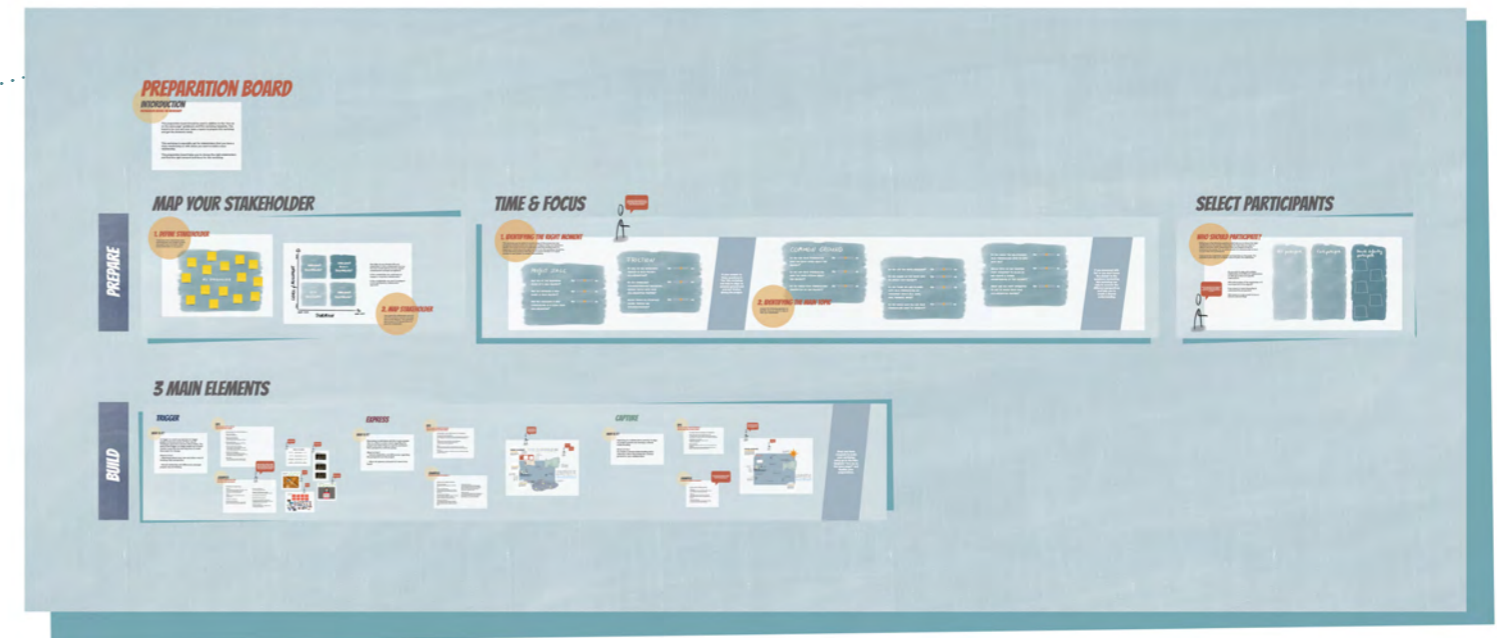


Figure 48: Image of the Miro preparation board for the alignment session.

3. Workshop template (Miro)

The last part of the toolkit is a (Miro) template for an online workshop where social innovators and their stakeholders can co-create a shared understanding. The function of the workshop template is to provide a basic structure and example for the set up of the online workshop. In the workshop template, the three stages of the fruitful friction towards common ground process (trigger, express, capture) correspond with one activity each.

Next, the elements will be explained in more detail. First, the workshop itself and the corresponding workshop template will be described. They represent the centrepiece of the toolkit. Afterwards, I will outline how the workshop template, the preparation board and the guidebook help social innovators to prepare for the workshop.

Link to the Miro workshop template:
<https://miro.com/app/board/o9JlNlplZo=/>

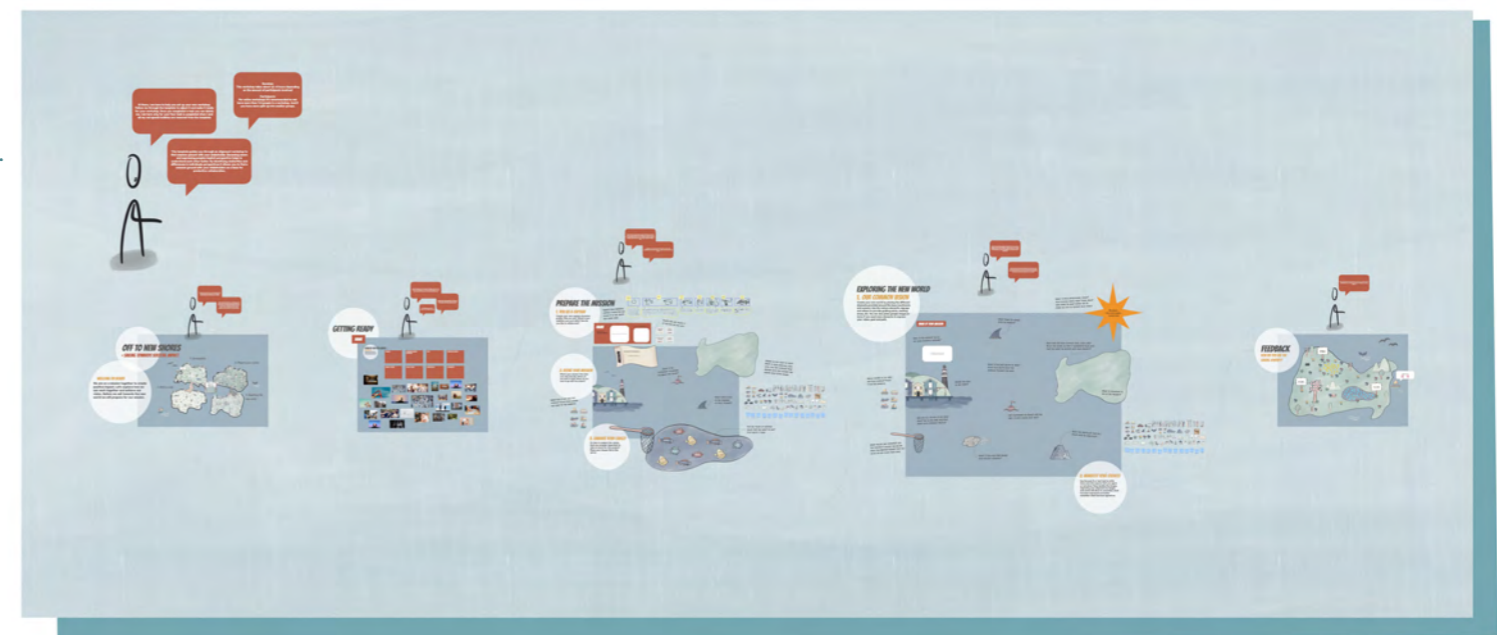


Figure 49: Image of the Miro workshop template for the alignment session.



5.1.3 The workshop & workshop template

Here, I elaborate on the workshop set up and the workshop template design. I will explain the different elements and aspects of the workshop. I highlight how the insights presented in the previous chapters influenced or are translated into the design of the workshop. This shall increase understanding and give validity. First, some general aspects will be explained, then the three main activities.

Workshop set up

Workshop outline

Duration: around 2 hours

Participants: 2-5 (advised)

Requirements:

- Miro & Zoom subscription
- A workshop facilitator

Sailing metaphor

In the workshop, the metaphor of 'Sailing towards new shores' is used to allow participants to make use of metaphorical language and express their implicit perspective more easily (Cila, 2013; Ortony, 1993, p. 2). The metaphor is also used to create an engaging, immersive and lasting experience.

Workshop elements and procedure

Now the workshop procedure and the corresponding elements are explained.

Welcome & introduction screen

The first part of the workshop is the welcome and introduction screen where the agenda and goal of the workshop are presented (see Figure 50, next page). As a warm-up exercise, two check-in questions are asked to understand what people expect from the workshop and how they feel (see Figure 51). Besides, are participants introducing themselves. This activity can help to create a trusted atmosphere of openness and collaboration (Heijne & Van der Meer, 2019, pp. 234-237).

Closing & feedback screen

The last part of the workshop is the closing and feedback island (see Figure 52 a & b). Here is where the session is wrapped up and feedback from the participants is collected. This helps to understand what participants take from the session and how their experience was. During the closing, the main agreements of the session can be summarised and the next steps can be named. The method 'I like, I wish, I wonder' is used to allow participants to give feedback constructively and positively. By replying to 'I like' people can express what they liked about the session. With 'I wish' can they express what could have been different about the session and with 'I wonder' can they give suggestions for future sessions (Calleja, 2020, October 08).

In the next part, the three main activities of the workshop are described.

Figure 51: Two check in questions as warm up exercise before starting with the workshop.

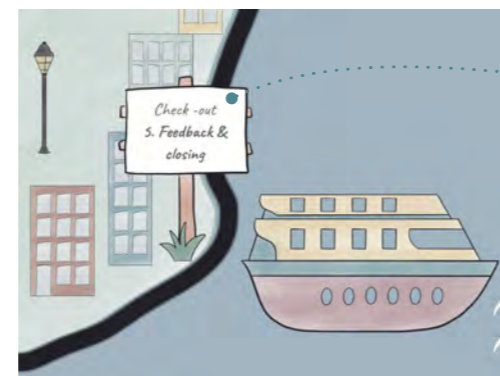


Figure 52 a: Part of the introduction screen describing the last part in the agenda. The ship taking off symbolises the end of the session.



Figure 50: Welcome & introduction screen. The agenda is represented by the four islands. Each Island stands for one activity of the workshop.

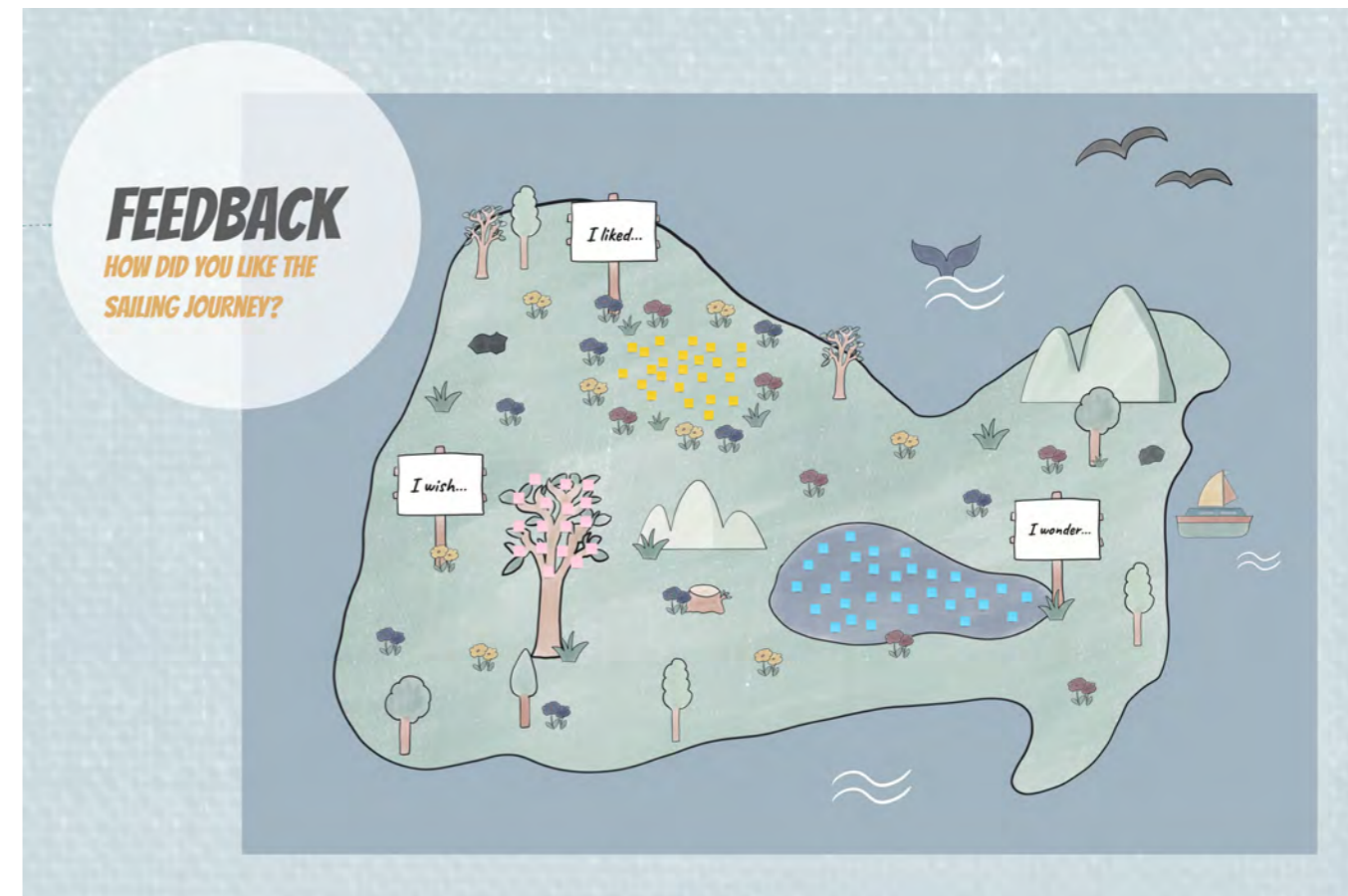


Figure 52 b: Closing & feedback screen. Participants can write down their feedback on the post-its.

The three main activities

Through the workshop, are participants guided along a journey with three main stages (see Figure 53). Each of the stages corresponds to one of the fruitful friction towards common ground process stages:

- Trigger → Getting ready
- Express → Preparing the mission
- Capture → Exploring the new world

1. Getting ready

Getting ready is the first activity of the workshop after the welcoming where people get triggered to become aware of their and others way of thinking. This activity is not necessarily directly related to the project but focused on general ways of thinking and perceiving certain aspects of each individual.

Figure 53: Overview of the three main activities of the workshop.

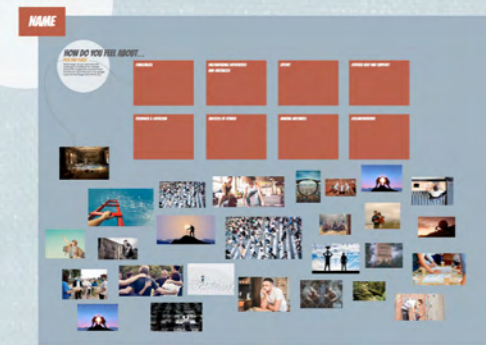
This is an individual exercise to trigger people to become aware of their way of thinking and see how others think. The objective of the trigger is to nudge people out of their comfort zone into the learning zone to make them open for change (Senninger, 2000). Each participants gets a personal work space in Miro to do this activity.

Doing this activity will raise awareness about the participants' different way of thinking and perspectives. This way similarities and differences are uncovered.

Depending on what the social innovators are interested in getting to know from their stakeholders a different trigger can be chosen or build. This is part of the preparation for the workshop and will be shown when the preparation board is explained.

For the workshop template, a trigger is built that is inspired by the fixed and growth mindset theory of Carol Dweck (Claro, Paunesku, & Dweck, 2016) and Buchanan & Kern's (2017) benefit mindset theory. They show how responses of people to a word like engagement or effort relate to having a fixed, growth or benefit mindset.

GETTING READY



PREPARE THE MISSION

1. YOU AS A CAPTAIN

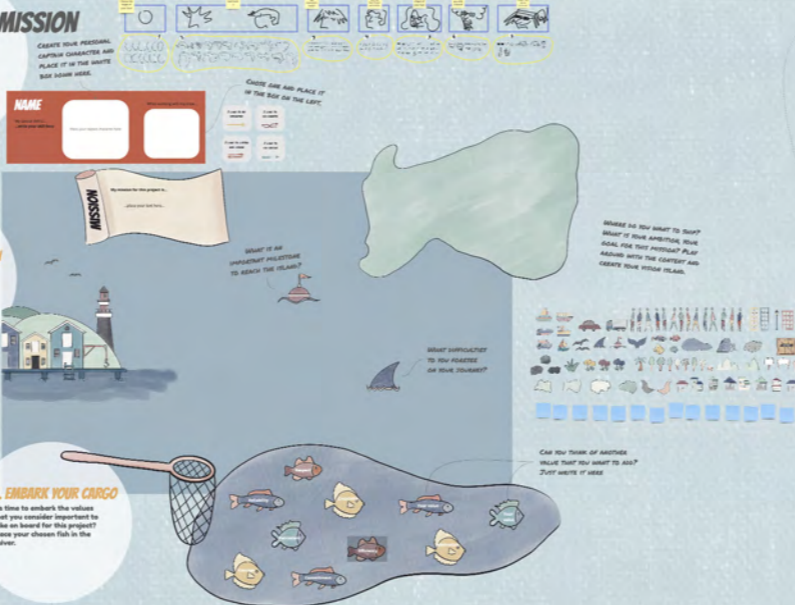
Create your own captain character profile. Who are you? What is your ambition and your skills? How do you like to collaborate?

2. DEFINE YOUR MISSION

What is your mission? How does your ship look like? Where do you want to sail? Where do you want to go with this project?

3. EMBARK YOUR CARGO

It's time to embark the values that you consider important to take on board for this project! Place your chosen fish in the gutter.



EXPLORING THE NEW WORLD

1. OUR COMMON VISION

Create your own world by placing the different elements provided around the base (continents and oceans). Use the nature elements, signage and others to provide guiding points, meeting areas, etc. You can also place google images or icons if you need more elements to express your vision, goal and path.

NAME OF YOUR MISSION

WHAT IS THE CAPTAIN? AS IN YOU WOULD PRACTICE CAPTAIN?

WHAT IS THE BEST ADVICE TO TAKE? FROM YOUR ADVICE REVEAL THE INSIGHTS TOWARDS THE GOAL.

ARE YOU ALL SETTING IN THE SAME BOAT? AS IN YOU NEED PRACTICE BOATS WITH IMPORTANT POINTS?

WHAT WILL BE THE MOST IMPORTANT FOR YOUR PROJECT? CAUSE THE VALUE FROM THE PREVIOUS BOARD THAT YOU ALREADY ARE PLACE THEM HERE.

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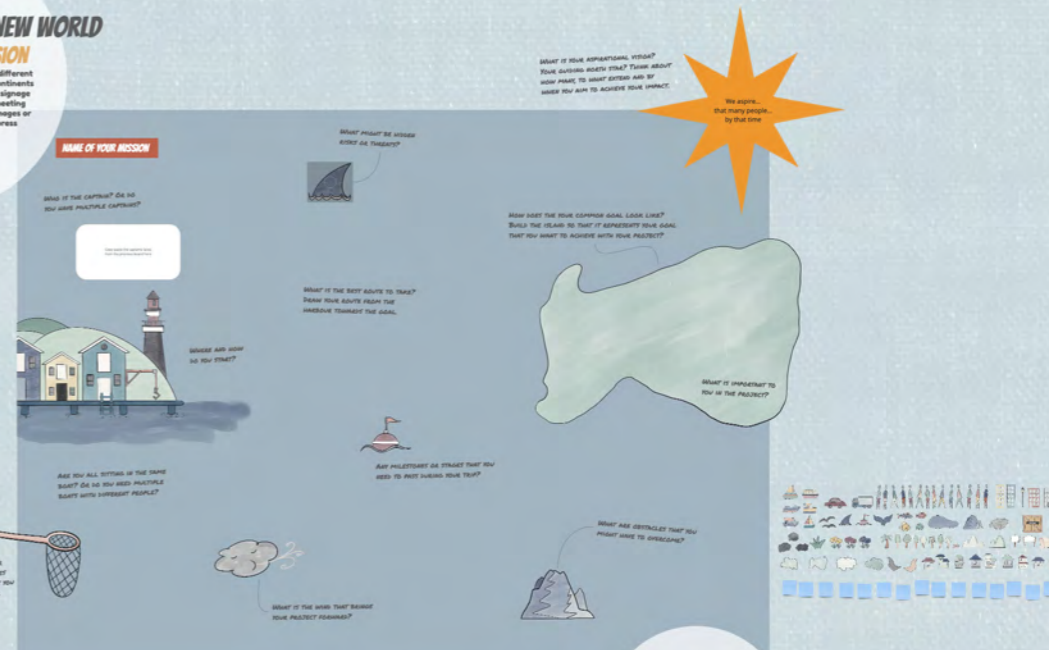
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2. MANIFEST YOUR CHOICES

Use the post-it or bank tool to write down concrete aspects that you agree on and place them besides the images. Capturing your alignment by images and words will allow to communicate what has been expressed and better remember what has been agreed on.



So, participants get presented with different words and from a collection of images they can choose the ones that they think fit best the word (see Figure 54). For this, participants will get around 5-7 minutes. This gives people time to reflect individually on their way of thinking. By having a collection of images participants can distance themselves from the matter and use associations to express themselves. This is one example of how a protective frame (Fokkinga & Desmet, 2012) is built here. Afterwards, each participant will explain their choice to the group. This way the differences in perspectives are realised. The facilitator can point out similarities to already indicate alignment and initiate a small discussion. By doing so the reflection can be deepened, since two stimuli (the artefact and the discussion) trigger friction, as shown in the previous chapter.

Then the workshop moves to the next activity and so do we.

Figure 54 (next page): Workshop board for the first activity, 'Getting ready'. First activity of the workshop. Each participants get their own board. Participants choose images corresponding to what they associate with the word.



2. Preparing the mission

Preparing the mission refers to the express stage of the fruitful friction towards common ground process. This is an individual activity to give people time to reflect on their stand regarding the project and allows them to express and share their perspective with the group. It aims to unlock similarities and differences regarding the perspective on the project of the different participants. Besides, this allows all opinions and point of views to be heard. First, people get around 15 minutes to work individually and then everybody presents their board to the group.

In the workshop, this activity is linked with 'Preparing the Mission'. Here, each individual get their own board and creates their vision of the mission, builds a destination island (goal), defines the values and how to best get there (see Figure 56). The metaphor and playful elements of this activity aid people to put their thoughts into words.

Building blocks are provided to facilitate the expression of more tacit knowledge and concepts.

Building blocks

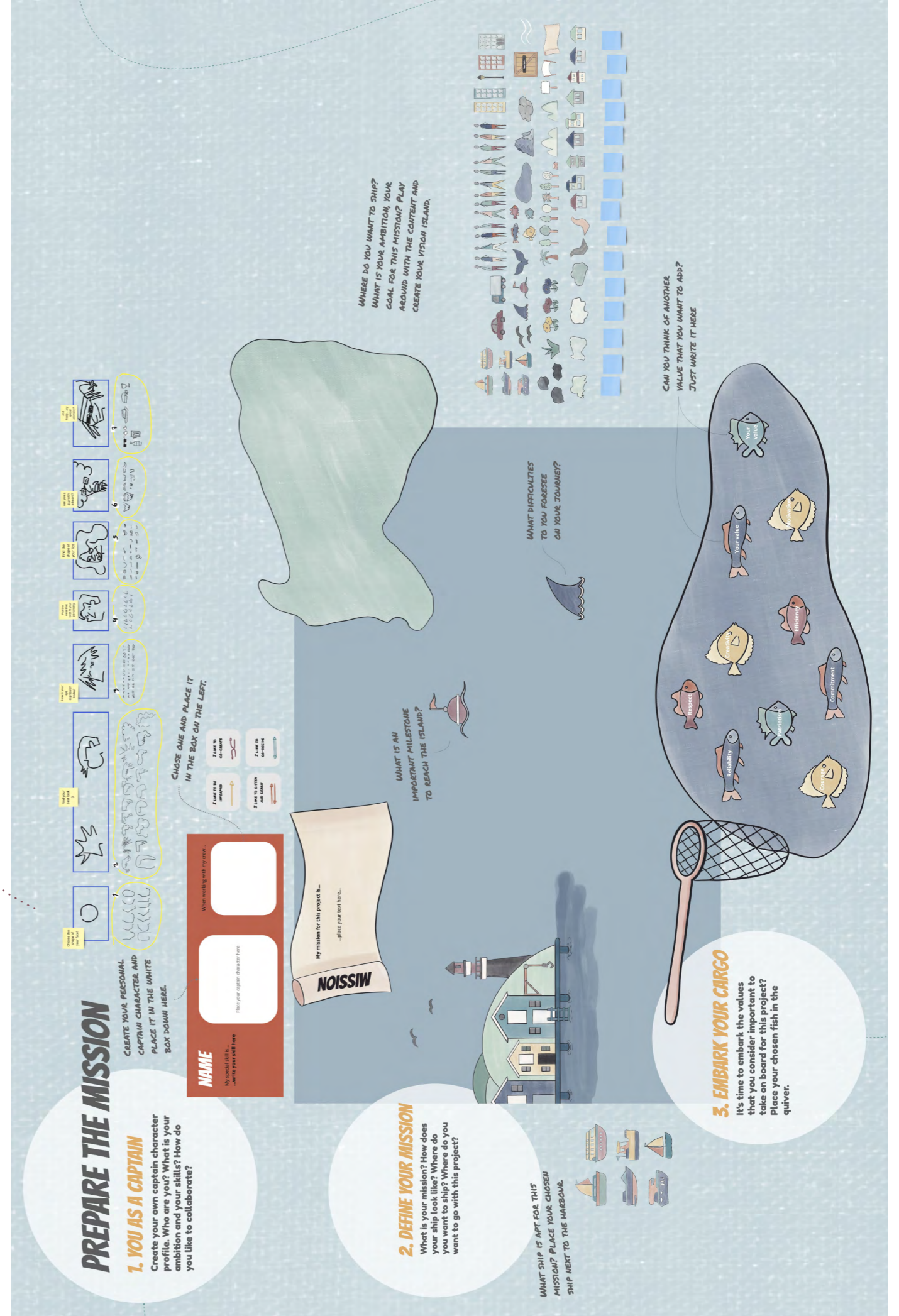
For the express and capture activity, there are elements that participants can use to build and express their point of view/ capture common ground. This is a general collection of visuals tailored to the sailing metaphor that participants can use and play around with (see Figure 55).

Now, I will highlight some elements of this second activity.



Figure 55 (below): Building blocks that participants can use to build their mission.

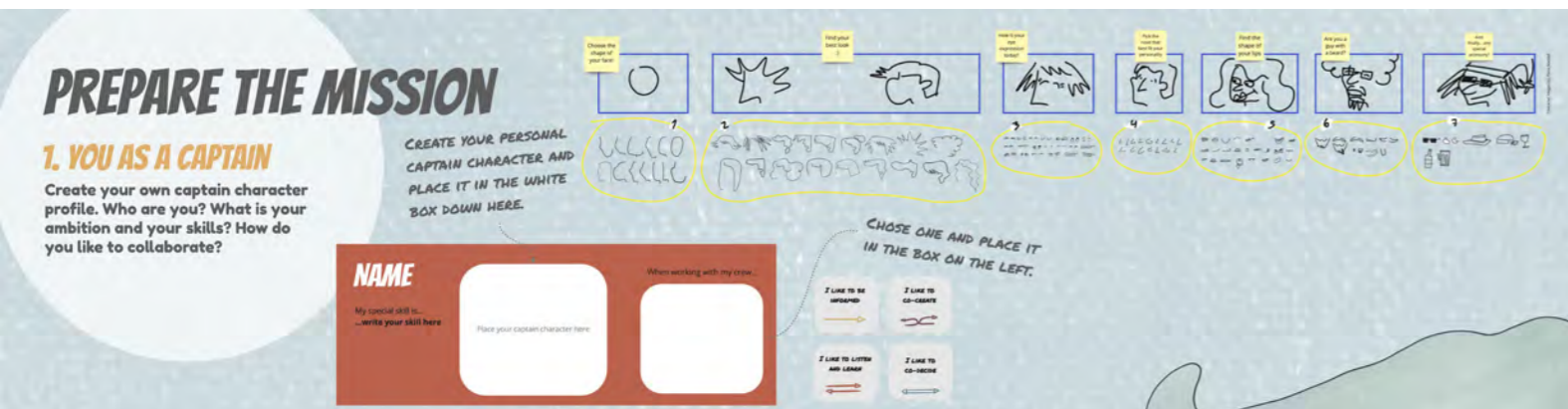
Figure 56 (next page): Workshop board for the second activity, 'Preparing the mission'. Each participants gets a personal board.



You as a captain

In the beginning, participants can create their captain character. They can define a name, a special skill and choose how they want to collaborate with their crew. Defining a captain is done to create a protective frame. In the sense that participants can talk from the captain's perspective and distance themselves from the subject. This shall facilitate to express more difficult aspects. By defining their special skill participants express what they think they are good at. This can help to understand people's strength and indicate how they can contribute to the project. Choosing how they want to collaborate relates to the levels of interaction presented in chapter 2.2.2. Understanding how the participants prefer to interact can ease the collaboration and expectations regarding the collaboration are more clear.

Figure 57: The first part of the second activity. Participants define who they are as a captain.



Define your mission

Here, the focus is on understanding how the participant defines the project objective from their perspective. They specify their mission for the project, choose the boat that they think fits best to this mission and place it on the harbour (see Figure 58). The idea of choosing from various boats is to spark associations with the distinct qualities of the boat. For example, choosing the cruiser ship could stand for needing a lot of people on board to complete the mission.

Figure 58: The second part of the second activity. Participants can write down their mission, can pick a boat and place it to the harbour.

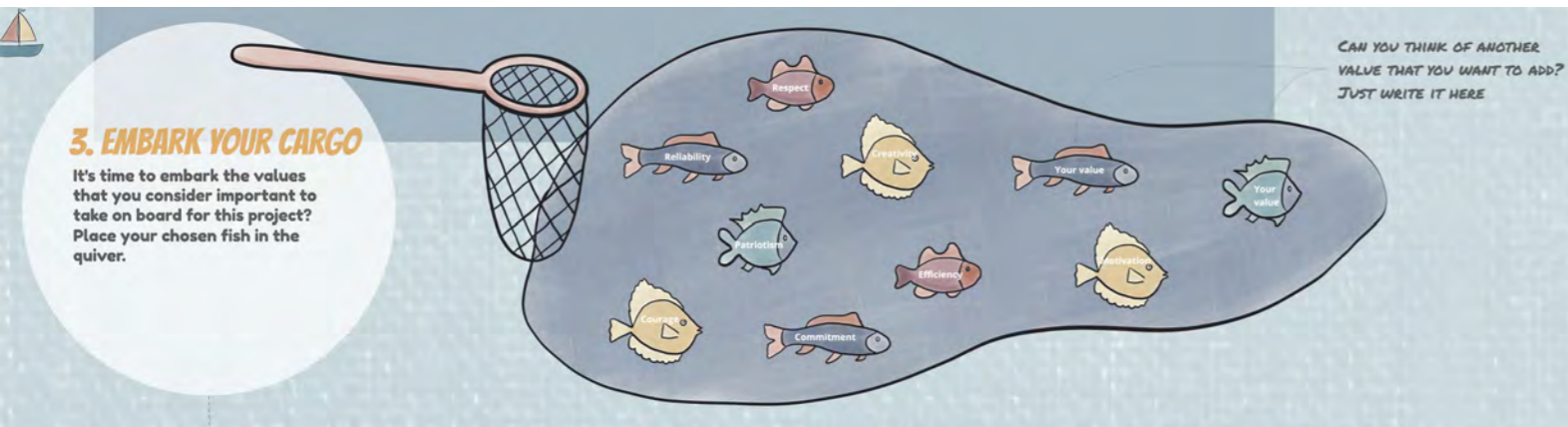


05 Translating

Embark your cargo

The third section is all about values. Here, participants choose or define what values they consider important for the mission (see Figure 59). This aims to elucidate the more implicit and tacit perspectives of peoples way of thinking. Just as fishes live in the water below sea level and are mostly invisible to us, so are values. This association is aimed to be portrait with this task.

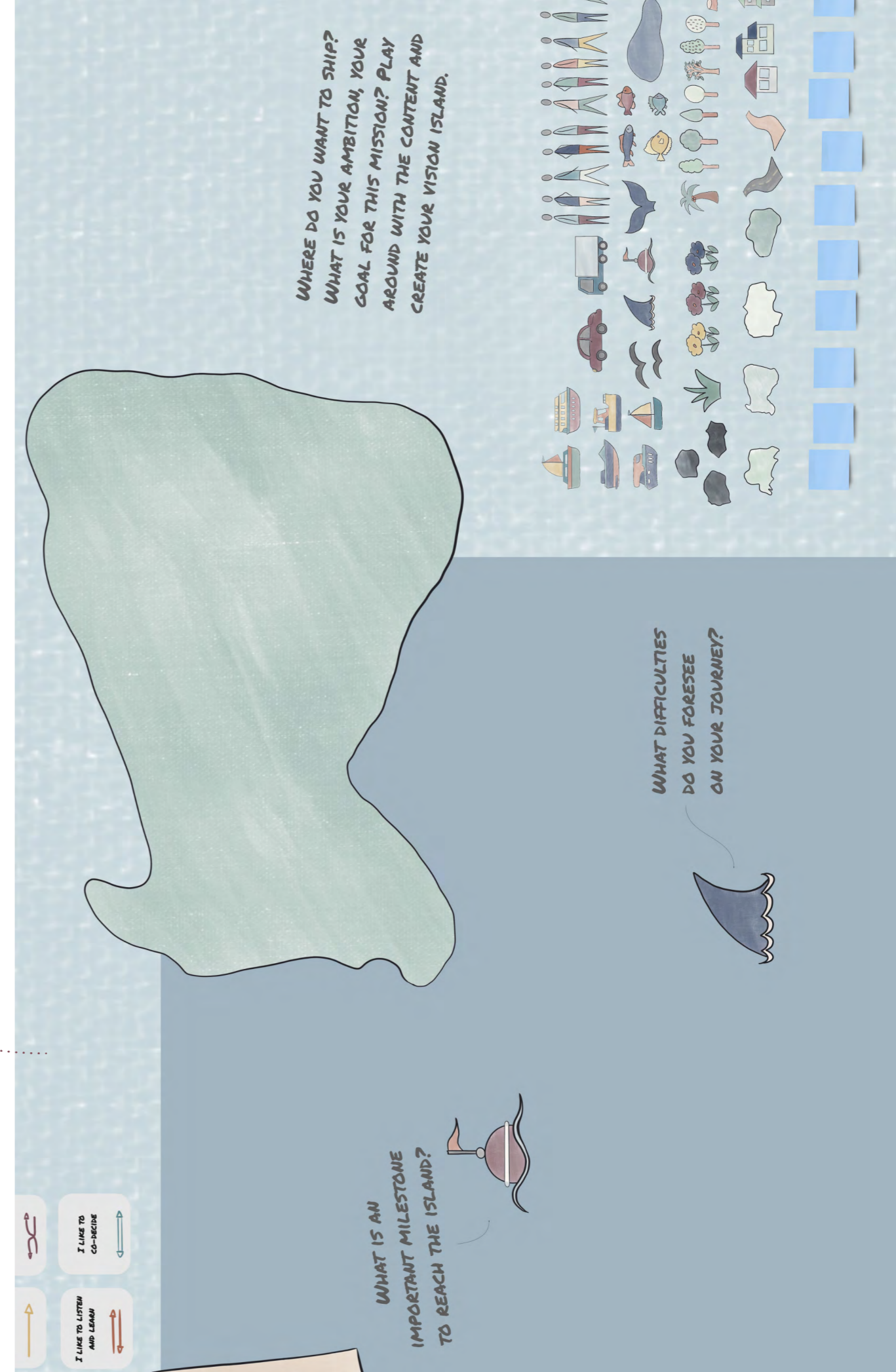
Figure 59: The third part of the second activity. Participants define The values that they want to take on board. Each fish represents one value and participants can also define more values.



Path and destination

The last part of this activity is the destination island which represents the goal that people want to reach or foresee for the project and the path to get there (see Figure 60). The task is to use the building blocks to create an island that represents their goal, ambitions and vision. Then, they can think about some important milestones and possible obstacles that need to be passed along the journey to reach the island. The intention here is to get an idea of how people envision the project to proceed and end.

Figure 60 (next page): The destination island. With the building blocks can participants get creative and build the goal that they envision.



05 Translating

The express activity is oriented more towards the present to reveal individual aspects and perspectives of the person they consider important for the collaboration. For this reason, is the destination and path part not specifically promoted like the other three steps. In contrast, the focus in the last activity is more on the future, the joint venture and vision.

3. Exploring the new world

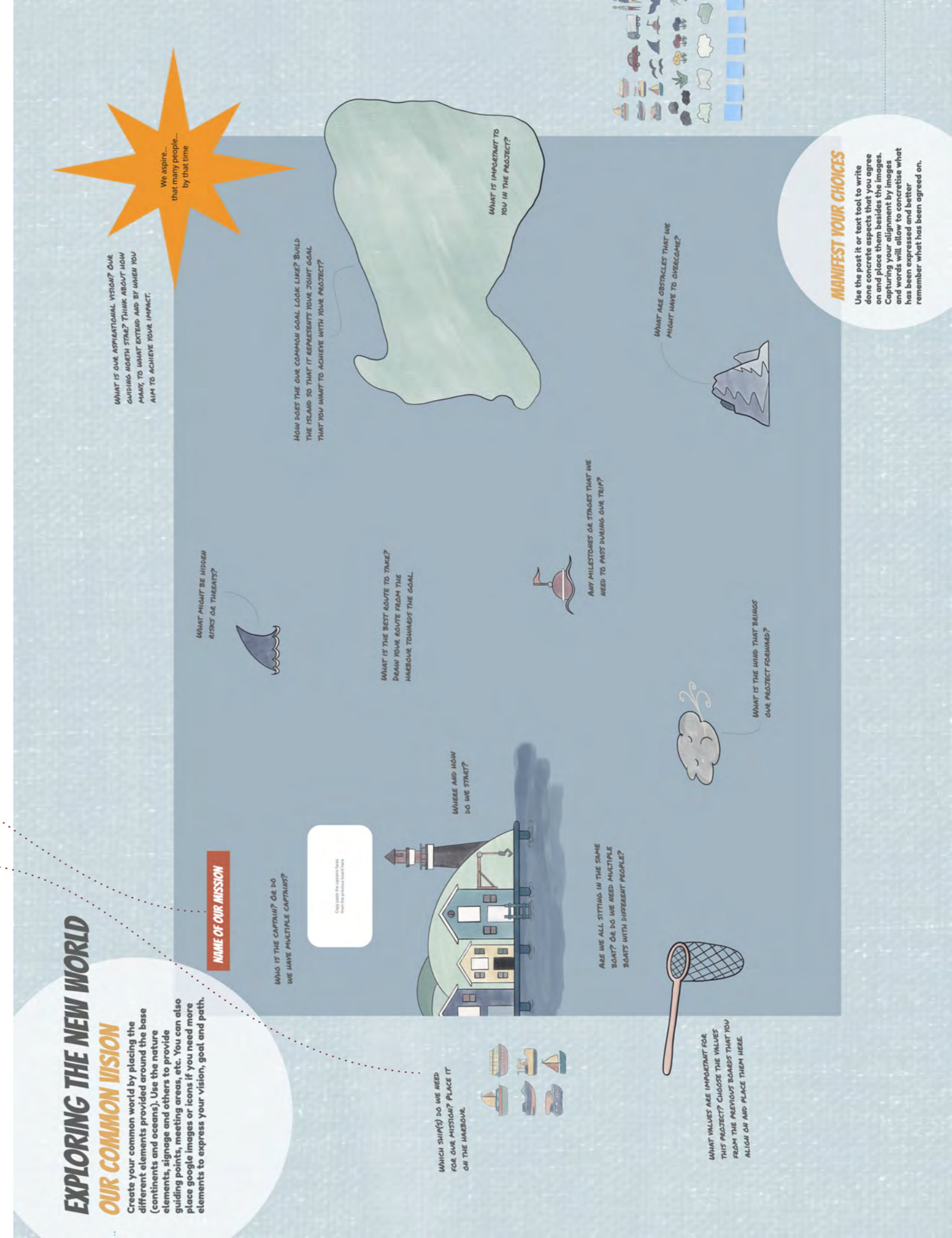
The last activity is a co-creation of the common mission (see Figure 61). This relates to the capture stage of my scaling deep process. All participants work on one board and together define and identify their shared understanding (duration about 20 min.).

The set up of this activity is similar to the second one but now the focus is on the joint journey. This is for example visible by the change in the language of this board. The words 'we, us or our' are used instead of 'I, me and my'.

Exploring the new world is a more free activity where participants do not have to follow a specific order. Therefore plays the facilitator a very important role here. The facilitator is the guide of the co-creation and mediates the conversation. Asking probing questions and encouraging different participants to share their opinion is one of the facilitators' tasks. Besides can the facilitator point out the different aspects on the board that the group has not yet thought of. For instant by asking "What do you think could possible obstacle be?".

Aspects that have been stimulated on the previous board come back here to negotiate a common understanding of them. For example, the choice of a boat or values or who the captain is.

Figure 61 (next page): Workshop board for the third activity, 'Exploring the new world'.



05 Translating

In the capture activity, the focus is more future and vision-oriented, to allow people to envision how they would like to work together and what they would value. However, it is aimed to capture more concretely and specifically what they agree on. This is done for instance by making them define a north star and emphasising the destination island (see Figure 62). This presents one example of how, in the toolkit, Paivios' (2014) dual-coding theory of combining images with text is applied and abstraction is reduced.

Engaging together in this collective sense-making activity aims to create acceptance and ownership. The boundary object (Moor, 2018) is the whole board but also the island or the north star could act as a boundary object.

The metaphor used here shall aid to build a scenario that transforms the information and knowledge into a more tangible result (Meroni, 2008).

At the end, when participants completed the task the facilitator can ask one of the participants to summarise the main points that they have agreed on. This can be a way to get confirmation from the other participants that they coincide with the defined points and allows them to correct points.

This completes the explanation of the workshop and its' template so next, I will explain how to prepare for the workshop and how the toolkit assists in this.

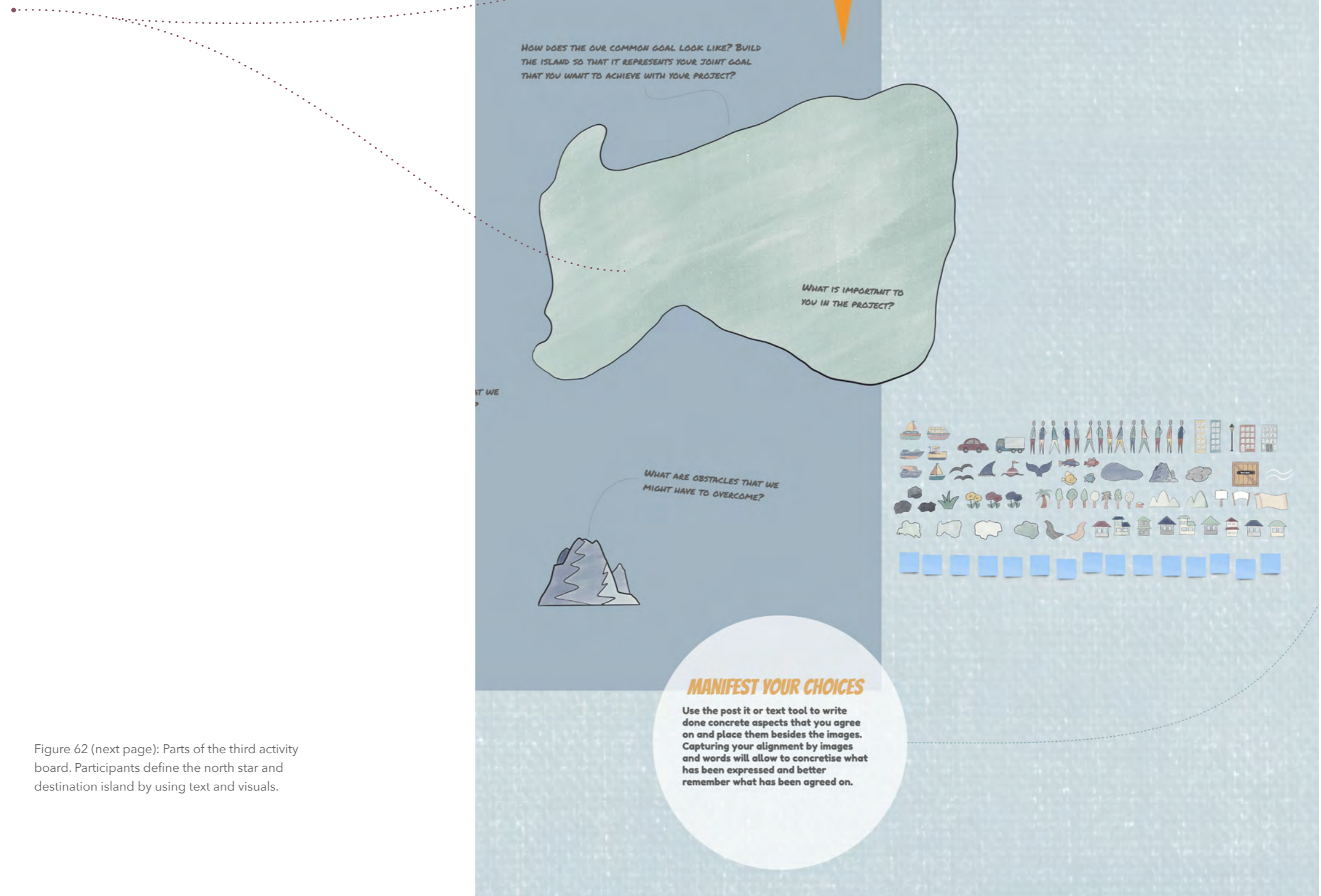


Figure 62 (next page): Parts of the third activity board. Participants define the north star and destination island by using text and visuals.

5.1.4 Preparing the workshop

Each of the toolkit elements helps social innovators to prepare the workshop in different ways. Those differences will be explained next, starting with the workshop template.

Workshop template

In the workshop template, people get help to do the last changes and adjust the board to make it ready for the workshop. This is facilitated by an assistant who gives them tips and tricks to best prepare and conduct the workshop (see Figure 63, next page). The person preparing the workshop board can follow the instructions in the speech bubbles and afterwards delete them so that the workshop participants do not see the assistant anymore (see Figure 64).

Figure 63 (next page): Image of the assistant character that help innovators to prepare the workshop template.

Figure 64: Comparison of the workshop board before and after the social innovator adjusted it.



Preparation board

Here, I explain how the preparation board helps social innovators in their preparations for the workshop. The board allows to make bigger changes to the workshop and supports the general preparation stage.

The preparation board is split into two parts: (1) prepare, (2) build. In each part, different activities focus on different aspects of the preparation. This part of the toolkit is a Miro board so that activities can be done directly on the board. They can even be done together with their team. I will first explain the preparation part of the board and then the building part.

Prepare

The first part aims to help social innovators to identify the right time to conduct this workshop, what the main focus can be and who they want to involve. To do so they first define and map their stakeholders. They map them according to the duration of the collaboration and the estimated level of alignment they need for the collaboration. Stakeholders, with whom they aim to have a long term relationship and a high level of alignment are the ones where this workshop could be useful (see Figure 65).

Figure 65: Part of the preparation board. In the first part can innovators define and map their stakeholders to identify with whom to do the workshop.

Next, they can answer questions to identify if they are in the right project stage to conduct a workshop. This is for example when they start a new phase and engage new stakeholders or when they experience tensions in their collaboration. The questions aim to provoke reflection to assess whether the moment is right to conduct a workshop. On the board, people can answer the 'Yes' or 'No' questions by moving a square to the left or right side (see Figure 66). If the answer to most of the questions is 'Yes' they are advised to conduct a workshop.

A similar mechanism is applied to help social innovators to identify aspects they need to align on (see Figure 67). The questions asked here are based on the aspects that are important to consider in collaborations like common ground (see chapter 1.3.3). Additionally, the main struggles of social innovators in their relationship with stakeholders that have been identified in chapter 2.2.2. If the answer to the questions is 'No' or they do not know the answer the workshop is recommended.

The last part of the preparation section is to select participants. This is explained next.

Figure 66: Part of the preparation board to identify the right moment to conduct a workshop. Social innovators answer the questions by moving the square to the left of right.

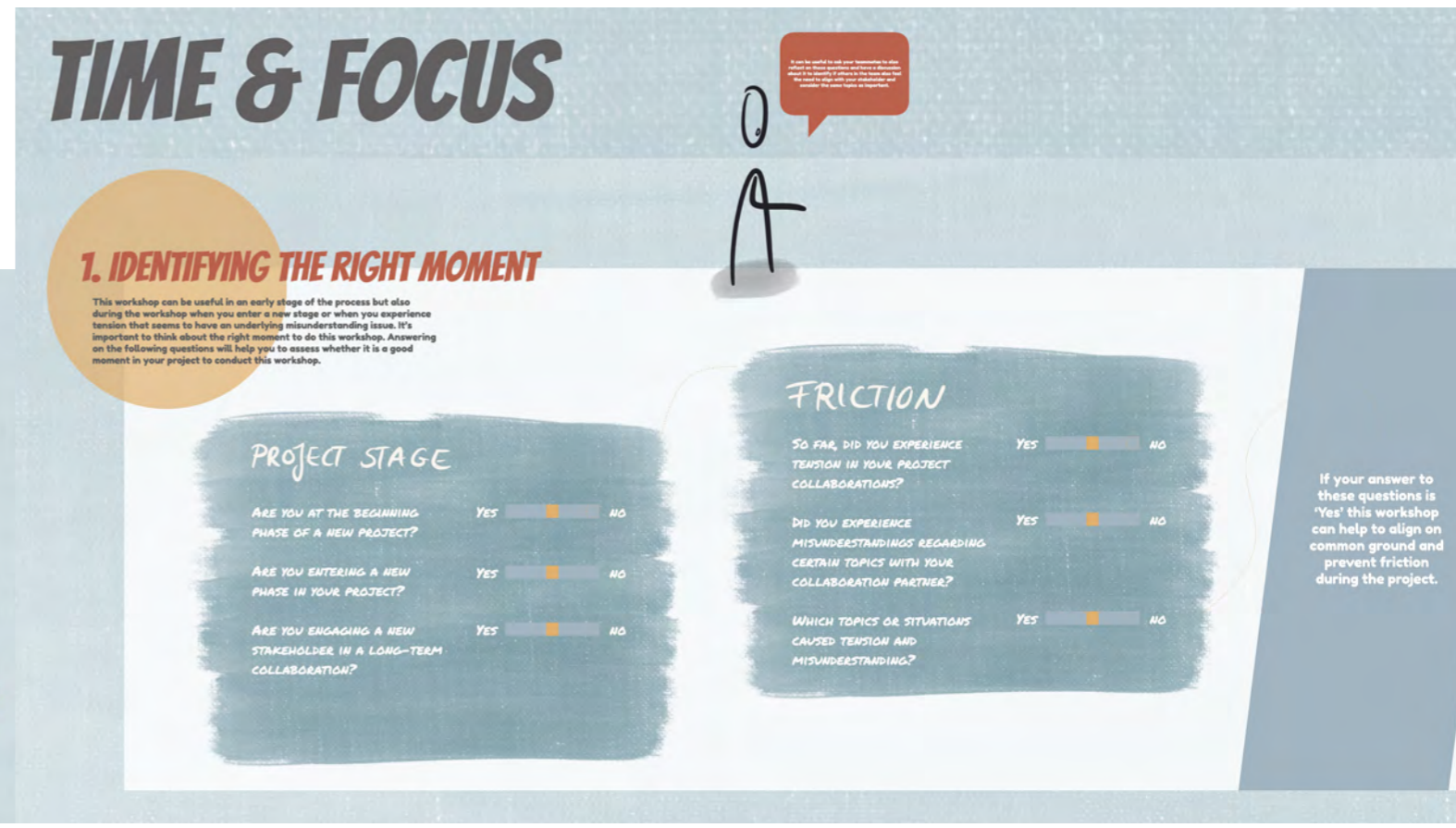
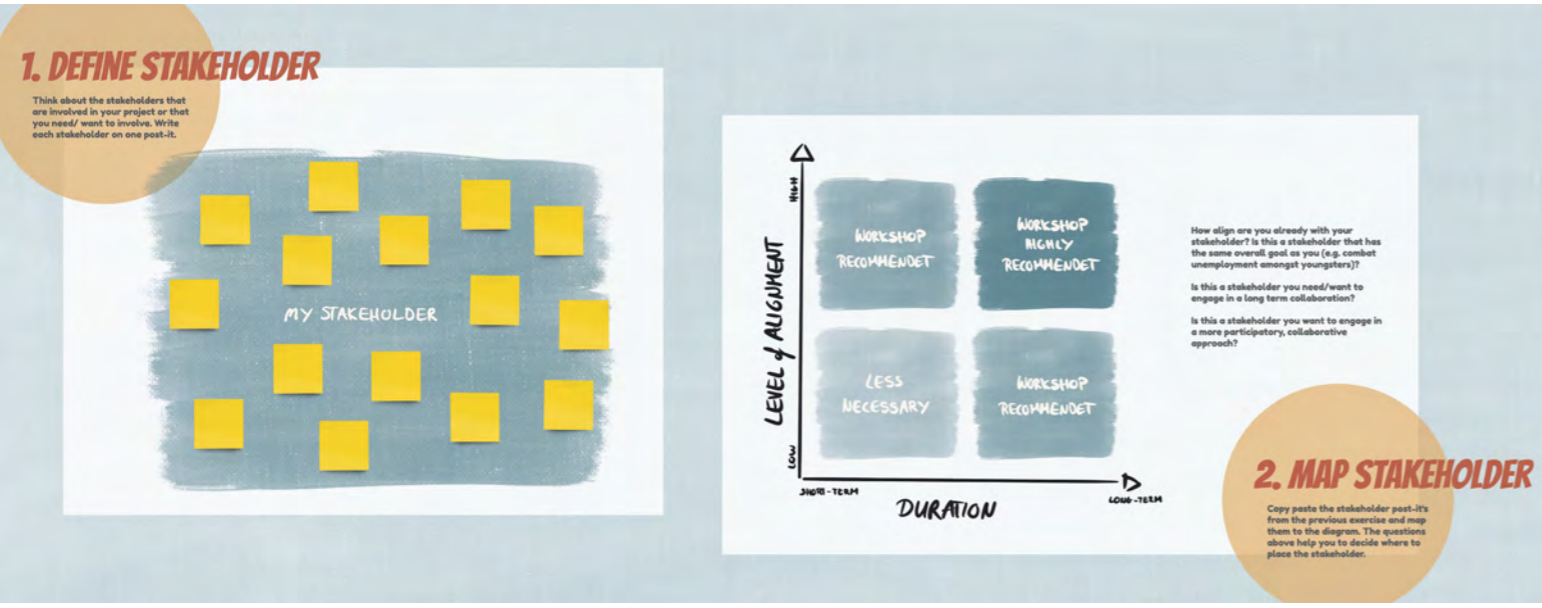


Figure 67: Part of the preparation board to identify a possible focus for the workshop. Social innovators answer the questions by moving the square to the left of right.

COMMON GROUND

DO YOU AND YOUR STAKEHOLDER HAVE THE SAME VISION ABOUT THE PROJECT? YES NO

DO YOU AND YOUR STAKEHOLDER HAVE THE SAME MISSION ABOUT THE PROJECT? YES NO

DO YOU KNOW YOUR STAKEHOLDERS PERSPECTIVE ON THE PROJECT? YES NO

DO YOU USE THE SAME LANGUAGE? YES NO

DO YOU AGREE ON THE SAME PATH TO UNFOLD THIS PROJECT? YES NO

DO YOU THINK YOU ARE ALIGNED WITH YOUR STAKEHOLDER ON IMPORTANT TOPICS (E.G. GOAL, IDEA, FINANCES, PATH)? YES NO

DO YOU KNOW HOW YOU AND YOUR STAKEHOLDER WANT TO INTERACT? YES NO

DO YOU KNOW THE RELATIONSHIP YOUR STAKEHOLDER WISH TO HAVE WITH YOU? YES NO

WHICH TOPIC DO YOU CONSIDER MOST IMPORTANT TO ALIGN ON AND CREATE A SHARED UNDERSTANDING AT THE MOMENT? YES NO

WHAT ARE YOU MOST INTERESTED TO GET TO KNOW FROM YOUR COLLABORATION PARTNER? YES NO

2. IDENTIFYING THE MAIN TOPIC

Answer the following questions to identify what you want to align on with your stakeholder.

If you answered with 'No' or you don't know the answer to the questions conducting this workshop can help to uncover the different perspectives and help you to create a shared understanding.

After knowing that the moment is right and having reflected on aspects to align on, participants for the workshop are selected. This is done by probing social innovators with questions to assess who of the stakeholders that they identified in the previous activity they want to involve in the workshop (see Figure 68). They are asked to copy-paste the stakeholder post-its to this section and select five that they want to invite.

This activity ends the part of the preparation board that is called 'Prepare'. Now innovators have two options. They either can go directly to the workshop template, adjust it and make it ready for the workshop or they can move on to the 'Build' section to make bigger changes to the workshop.

The 'Build' part of the preparation board will be explained now.

Build

As mentioned, is here information given to make more elaborate changes to the three main activities. In this section, the insights that I gathered through my research that are relevant for design are presented to help social innovators making changes and show them important aspects that need to be con-

sidered when designing an activity. The information given here shall sensitize innovators and deepen their understanding of the three main activities, their purpose and goal. For each activity a small introduction, tips and examples are given. Here, some triggers of the MVP tests are implemented to give innovators different options to trigger friction. To get an impression of the board see the images on the next pages (Figures 69 - 71). This part is designed for social innovators that feel more confident with the design of workshop tools and have experience in facilitation.

The preparation board provides an interactive guide to lead social innovators through the preparation process. To get more in-depth information the guidebook can be consulted.

After the images, the explanation of the guidebook will follow.

Figure 68 (next page): Part of the preparation board. In the first part can innovators define and map their stakeholders to identify with whom to do the workshop.



TRIGGER

WHAT IS IT?

A trigger is a warm-up exercise to trigger people to become aware of their way of thinking in general & see how others think. The goal of the trigger is to nudge people out of their comfort zone into the learning zone to make them open for change.

What is it for?

- Awareness about your own and others way of thinking, their perspective
- Reveal similarities and differences amongst peoples way of thinking

TIPS

WHEN YOU DESIGN A TRIGGER, THERE ARE THINGS THAT YOU SHOULD CONSIDER...

Designing triggers for fruitful friction is about...

- Balance provocation**
 - Should not be offensive
- Balance personal affection**
 - Relatable but not personal
 - Find something that has meaning for people
- Balance comfort zone**
 - Save space to allow people to comfortably move out of their comfort zone
- Awareness about topic and medium**
 - Is it the topic e.g. on the image, that should create friction or the artefact?
 - Is the friction targeted at you or the artefact?
- Consider context and group**
 - Every person reacts differently, personal background and previous experiences influence how people react when facing friction
- Asking Why?**
 - The conversation about the trigger is what makes people express their way of thinking

When choosing or creating a trigger think about what you want to know from your participants. What specific aspect of their internal perspective are you interested in to uncover?

EXAMPLES

USE THEM AS INSPIRATION OR USE THEM RIGHT AWAY IN YOUR OWN WORKSHOP

Possible means to trigger friction...

- Dilemmas**
 - Present people with choices they have to make
 - They work to make people argue with themselves about their perspective
- Images**
 - They work well to create friction about a specific topic
- Headlines or statements**
- Play with the environment**
 - Environmental friction can be more neutral and work raise awareness about differences
- Play with expectations**
 - Can help to create irritation
- Experiment with different emotions**
 - Activity should end with a positive emotion
- Use surprise moments/elements**
- Experiment with provocations**
- Experiment with different perspectives**
 - Can help to show that more than one answer is possible, there is not one truth
- Adding fun elements**
 - This can help to address a difficult topic
 - Can loosen atmosphere

WOULD YOU RATHER

- BE FEARED BY ALL vs LOVED BY ALL
- NEVER GET ARGUED vs NEVER BE ENJOYED
- HAVE A HORRIBLY CORRUPT GOVERNMENT vs NO GOVERNMENT
- KNOW THE UNCOMFORTABLE TRUTH vs BELIEVE A COMFORTING LIE

Child Labour!
Kids have to work for up to 16 hours a day.

Biological Farming!
The Wu Family are the most successful business farmers.

Put your headline here

HOW CAN WE COME TOGETHER TO CHANGE OUR WORLD?

A PARTY FOR YOUR THOUGHTS...

I AM NOT A VIRUS

Figure 69: Part of the preparation board, 'Build' section. Information about how to build a trigger activity is given. Examples are given to show innovators different options to trigger friction.

EXPRESS

WHAT IS IT?

Expressing is individual activity to give people time to reflect on their stand regarding the project and allow them to express and share their perspective with the group.

What is it for?

- Unlock similarities and differences regarding the perspective on the project
- Allow all opinions and point of views to be heard

TIPS

WHEN YOU DESIGN FOR INDIVIDUAL ARTICULATION THERE ARE THINGS THAT YOU SHOULD CONSIDER...

Allowing people to express implicit aspects can be facilitated by...

Providing a frame & building blocks
 - Give people a frame as a basic structure and building blocks with which they can imagine, write, draw and build to express their perspective.

Time
 - Allow people to take some time to think individually.
 - Allocate time so that each individual get's the chance to express their perspective.

Space
 - Provide a separate space for each individual to express their perspective (e.g. each participant get's a board in the Miro template).

Metaphors
 - Use metaphors, analogies to facilitate people in expressing intangible and implicit concepts.

EXAMPLES

YOU CAN USE THIS EXAMPLES AS INSPIRATION

Possible means to facilitate articulation...

Collection of images
 - Give people some images they can choose from

Figures as building blocks
 - Having figures (e.g. drawings, icons) allows people to tell a story without having to draw themselves

Workshop theme/ metaphor
 - Giving the whole workshop a theme or packing it into a metaphor allows to create an immersive and more engaging experience.

Probing text/ questions
 - Putting questions and starting a sentence helps participants think in different directions and overcome the fear of writing on a blank paper.

Using visuals and text
 - Use visual stimuli as well as text (images, icons, drawings, post-it's, etc) to facilitate a playful and light environment where people feel at ease to be creative and express themselves in different forms.

Make it personal
 - Writing down the names of the participants to the corresponding board to give it a personal feeling and that this is their safe space to express their very personal perspective

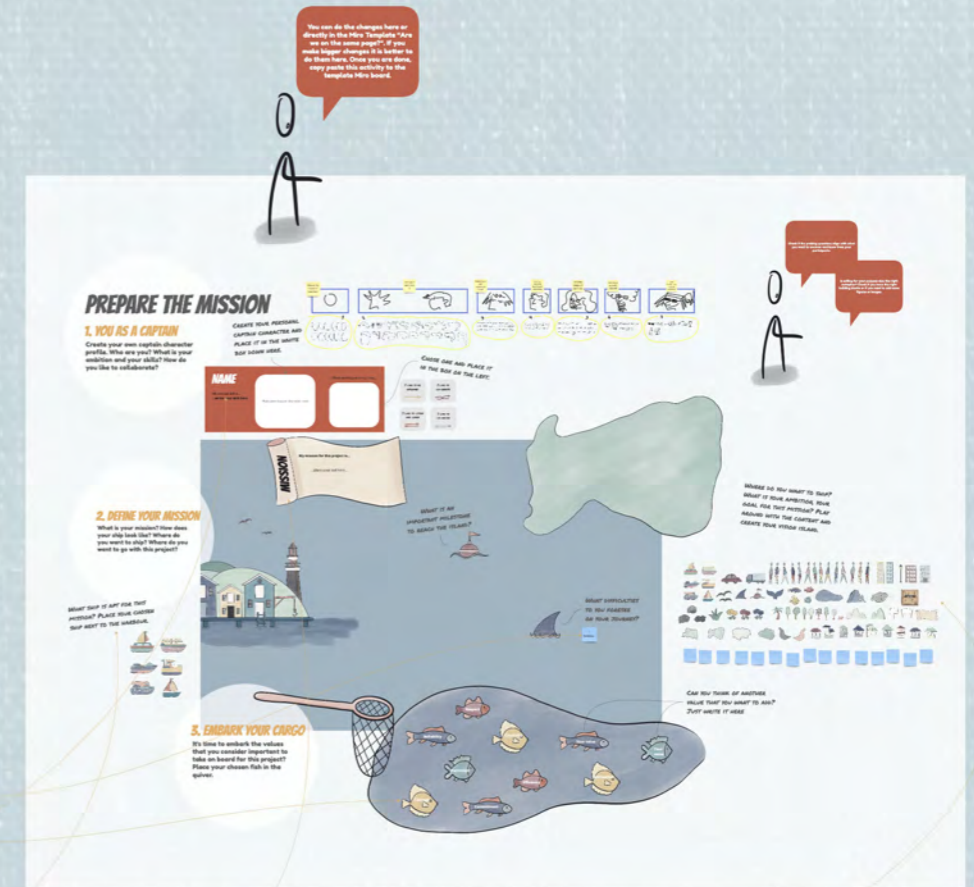


Figure 70: Part of the preparation board, 'Build' section. Information about what to consider when making changes to the express activity. Examples and tips are given help innovators make changes.

CAPTURE

WHAT IS IT?

Capturing is a collaborative activity to align on project aspects and develop a shared understanding.

What is it for?
Co-create a shared understanding and a collective vision that builds the common ground for your collaboration.

TIPS

WHEN YOU CO-CREATE A SHARED UNDERSTANDING THERE ARE THINGS THAT YOU SHOULD CONSIDER...

Co-creating a shared understanding can be facilitated by...

- Ladder abstraction towards something concrete**
 - To bridge towards a more tangible outcome probe people to make things more explicit and leave the metaphorical language.
- Manifesting common ground**
 - Space where key aspects of shared understanding are captured.
- Having a facilitator**
 - Neutral party that can make sure every voice get heard and respected.
 - Guiding the process and asking probing questions to direct people in exploring all aspects on the board.

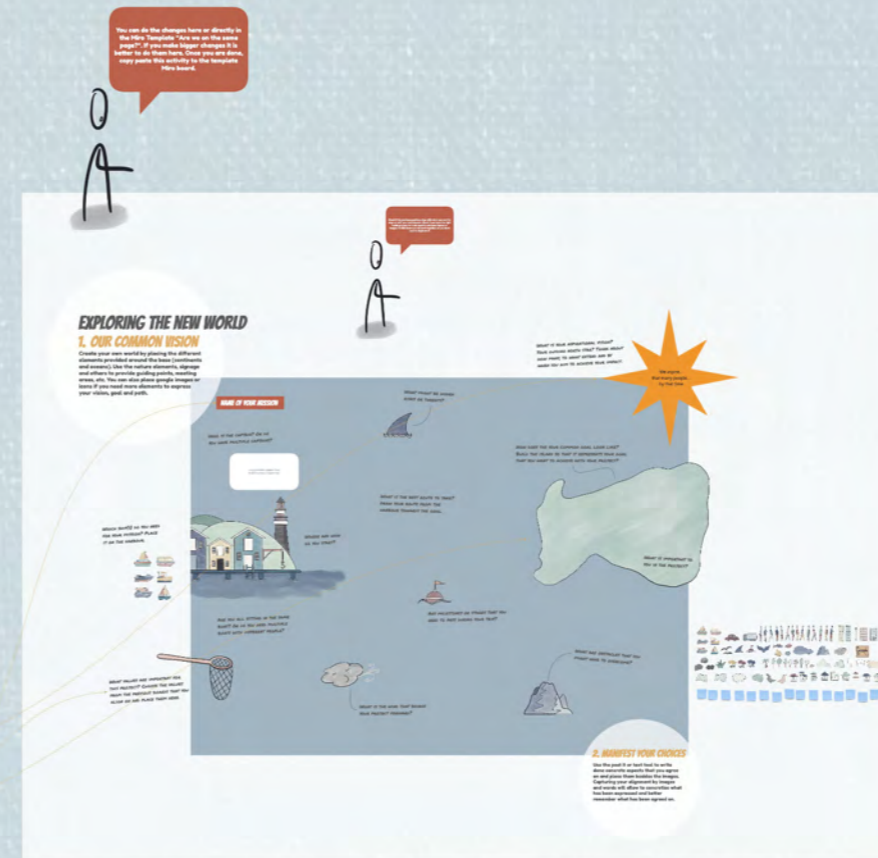
EXAMPLES

YOU CAN USE THIS EXAMPLES AS INSPIRATION

Possible means to facilitate capturing...

- Concretise**
 - Probe people to very concretely agree on e.g. a vision statement regarding the project
- Converge**
 - Have aspects where the elements from the individual boards need to be converged into a joint one
- Change the language**
 - Use *we/us/ our* now when probing and writing to emphasize that this is a joint outcome.

Also check out the examples and tips for expressing since they are also useful in the capturing part.



Once you have complete to build your workshop setup go to the Miro template "Are we on the same page?" and finalise your preparations.

Figure 71: Part of the preparation board, 'Build' section. Information about what to consider when making changes to the capture activity. Examples and tips are given help innovators make changes.

Guidebook

Here, I will highlight some aspect of the guidebook and explain in which way it helps innovators to prepare the workshop. From the three parts of the toolkit is the guidebook the one that contains the most in-depth information regarding the toolkit itself, the theoretical background and the process to prepare for the workshop. This makes it especially useful for innovators that have little experience in facilitation and co-creation and have not yet experienced the workshop themselves.

The guidebook has three main chapters. First, a general overview of the toolkit is given. This aims to show the application, relevance and value that the toolkit and workshop can bring social innovators. In the second chapter, the theoretical background is presented based on this report. This includes shortly explaining the social innovation process by Murray et al. (2010) (summarised from chapter 1.3.1), the three main scaling strategies of chapter 1.3.5, key aspects of the scaling deep process (summarised from chapter 2) and my conceptual framework (derived from chapter 3.1.2).

In the last and biggest part of the guidebook is general information about the workshop and a detailed step-wise process given. This chapter aims to navigate social innovators in a very hands-on approach through the preparation process. Leading them through four stages (prepare, plan, build and conduct) they will learn how to use and adjust the preparation board and how the workshop with the corresponding template is set up. Lastly, are practical tips for the facilitator provided.

Even though the process and workshop are explained throughout the three elements of the toolkit it is seen as beneficial for social innovators to participate in a training session before using the toolkit the first time. Ideas on how training could look like are presented in chapter 5.2.2.

Conclusion

The toolkit, 'Are we on the same page?', with the workshop template as its' centrepiece, presents the translation of the insights and implication of scaling deep into a workshop design. The different research activities as well as the literature review influenced and shaped the toolkit.

In the following part are insights about the evaluation of the toolkit described.

5.2

EVALUATING THE TOOLKIT

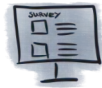
In this part, I will present insights and ideas derived from the evaluation of the toolkit. Besides, I will give recommendations to further improve and expand the toolkit.

Introduction

Over the next pages, I will show some ideas and insights to improve the toolkit that resulted from different evaluation activities. Before we dive into the results I will briefly explain the methodology used to evaluate elements of the toolkit.

Methodology

In addition to the already mentioned sailing sessions, an online survey and two evaluation sessions were conducted.



Online survey

In the toolkit, a metaphor is used. To choose a metaphor that is understood across cultures and to avoid unintended cultural misunderstandings a small online survey was sent to people with different cultural backgrounds. In the survey, two metaphors were presented: (1) embark on a spaceship and explore new planets and (2) embark on a sailing boat and sail to a new island. Supporting sketches were shown that visualised the metaphors and show how they could look like in a concept. To see the online survey go to appendix 7. People were asked to write down their associations with the metaphor and what they thought the metaphor could stand for. The goal was to better understand hidden implications and perceptions of the metaphor and support the decision for the one that is used in the final toolkit.



Evaluation sessions

Two evaluation sessions with two cases were held. The goal of the sessions was to understand how the process and tool can be made actionable, evaluate the different elements and understand how to best train innovators in the process. In the first evaluation session, the toolkit and its' different parts were presented and then feedback and ideas for further improvements were collected. The objective was to understand the relevance of the information given and gain a practitioners perspective. To see the Miro board used please see appendix 6. In the second session, a different approach was used. It was a more interactive, co-creative sessions using the metaphor of 'Learning how to dive' was used to understand how social innovators could be trained in the fruitful friction towards common ground process and workshop (see appendix 6). Participants were guided through a journey from learning the theory and process through training, towards mastering diving meaning mastering the fruitful friction process and workshop. This session was aimed to understand how and when innovators learn new processes and in what possible ways they imagine to be trained.

Some of the insights gathered during those activities are already implemented in the toolkit that I presented in the previous chapter. In this part, I will outline some highlights of the evaluation and future recommendations to improve the toolkit.

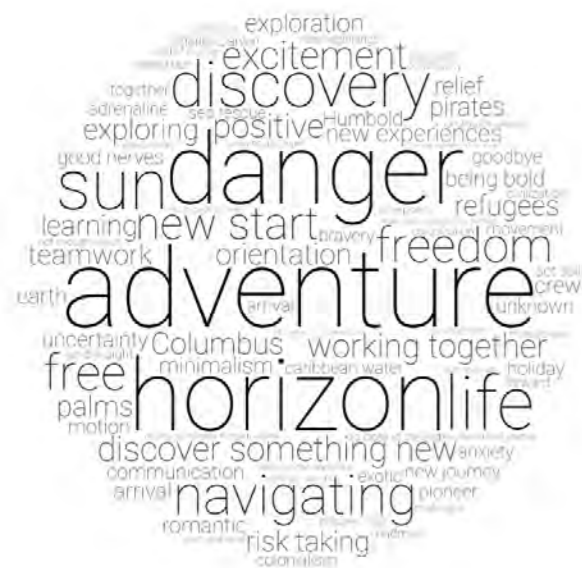
5.2.1 Evaluation results

Different elements of the toolkit were evaluated. The online survey evaluated the metaphor used. The sailing sessions focused more on the evaluation of the workshop set up and template. Lastly, helped the two evaluation sessions to understand the practical application and further potential of the toolkit. In the following, I will highlight the results of those activities.

Sailing metaphor

The results of the online survey showed that people associated more aspects relevant and apt for the scaling deep process with the sailing metaphor than with the space metaphor. For example, participants relate the sailing metaphor mainly with a joint journey and the space metaphor was more seen as a trip done alone.

Figure 72: Comparison of the two images representing the metaphor and the corresponding word clouds.



In Figure 72 a comparison of the word clouds can be found that show what words people associated with the two metaphors. Since the focus of my scaling deep approach is on a common understanding and collaboration the metaphor of sailing was chosen for the toolkit.

Re-name the toolkit

In both sailing sessions, the name used to advertise them “Fruitful friction towards common ground” was not understood because it was too abstract. This made clear that the name of the toolkit needed to be something more tangible and descriptive.

Need for customisation

The insights of the sailing sessions revealed that cases wish to customise the workshop to make it fit better to their current needs and project stage.

“I wish that we can customise something like this to other aspects that sometimes are more technical that we have to discuss with the people around us.” (Giulia, case 9, Ticket for Change)

This insight influenced especially the design of the preparation board where information is provided to customise the workshop.

Intention ≠ action

The first evaluation session revealed that from a practitioners perspective actionable means to identify the right moment and overcome the barrier of intention vs action. This means it is not only about understanding how the workshop works but also know-

ing and realising when to use it. This is aimed to be steered by the ‘Preparation’ part in the Miro preparation board and the guidebook. Especially the ‘Yes’ and ‘No’ questions aim to be a support in this aspect.

Training & experience

Another insight, of the evaluation sessions, was that initial training is needed in which the benefits and value, as well as the procedure and background, are explained and where innovators can experience the process and practice the workshop. It became evident that without training where cases also get to experience and use the tool it is difficult to build it themselves.

Practical value

During the evaluation sessions participants started to think about with whom of their stakeholders they could do this workshop:

“I can imagine that we do a similar workshop with the Advisory Board. (Giulia, case 9, Ticket for Change)

“So I wonder how it would have been like, for example, with someone of Lucca Creative Hub, which is our partner in this case.” (Rita, case 6, Start Park)

This shows that they see practical value in the tool and understood its’ usefulness in their work.

In the next part, I will give some recommendations to develop the toolkit further.

5.2.2 Further recommendations

Here, I will highlight some questions that could be further explored and ideas to expand the toolkit. They resulted mainly from the evaluation of the toolkit and my reflection about the toolkit.

How can the toolkit best be trained?

As already indicated is training beneficial to best apply and use the toolkit. In a training session social innovators could be introduced to the fruitful friction towards common ground process and 'Are we on the same page?' toolkit. By a training could social innovators experience the workshop first hand and gain confidence in using it.

Means of training

A training session could be offered in different forms. For example, it could be a webinar or a video training. This would be an easily accessible option that can be offered all over the world. However, does this not ensure that social innovators really understood the toolkit since answering questions and feedback is difficult to provide. Besides, does this option not allow to directly practice the process.

Another option is to offer a boot camp in which innovators can already get some practice in the use of the toolkit. This can be a one or two-day event where theory and practise is employed.

A middle way could be offering a training module as DESIGNSCAPES did for the social innovations. In this training module participants could first-hand experience the workshop, being facilitated through the different steps. This option would allow them to experience the workshop. In addition, a short introduction about the background of the toolkit could provide a theoretical foundation. Implementing the toolkit in an accelerator program has the benefit that cases get access to it relatively easy. With the other two options, a distribution strategy would be needed. So, understanding what are the best ways to make this toolkit accessible and realised by social innovators.

How can the tool be made accessible to social innovators?

The toolkit could be offered open-source to make it accessible to everybody. This could be a good option considering that money is short for most social innovations so paying for a toolkit is most likely not possible for

them. However, in the evaluation session did one participant mention that if they have to pay for something they value it more. So this is a question that could be further explored.

How can the tool be recognised?

Connected to the previous question it is also relevant to think about how innovators get to know about the toolkit. How can the 'Are we on the same page?' toolkit be recognised amongst all the other tools. Especially because scaling deep is not yet a well-known concept by social innovators. An idea to make the tool better known and usable is to collaborate with projects like DESIGNSCAPES and other accelerator programs or connect to the social innovators networks.

In what other situations or domains could the toolkit be useful?

This toolkit was developed for and in the context of social innovations. It would be interesting to see if and how this toolkit can be applied in other domains. For example, in companies or any team that aims to align on a deep level with their collaboration partners.

How can it be made even more customisable?

Now the toolkit uses the metaphor of sailing and elements like the building blocks are tailored to this metaphor. Besides, are most of the visuals used hand-drawn in a specific style. If, however, elements for a particular project context are missing (e.g. healthcare) cases would add them using a different style which could influence the experience.

These are just some of the questions that could be investigated to further develop the toolkit. Nonetheless, does the toolkit as it is now already provide value to social innovations.

In the following part of this report will I conclude this graduation project.

06

CONCLUDING

6.1

DISCUSSION

In the final chapter, I present a discussion about the results of this project. I outline its' contribution and limitations.

6.1.1 Discussion

This project is rooted around the topic of scaling social innovations, in specific, the strategy of scaling deep. The objective is to develop an actionable solution that facilitates social innovations to adopt the concept of scaling deep and supports social innovators in their scaling journey. To meet this goal research through design approach was followed, lead by the question:

How can design be used to transform the abstract and theoretical concept of scaling deep into something more tangible and implementable in order to make it usable for social innovations?

In three main project phases, different sub-questions were explored and other design activities conducted to find an answer to the main research questions. This discussion will first look at the main results procured to answer this question and then their contribution to academia, DESIGNSCAPES and social innovations. This is followed by a reflection on the limitations of this research.

Results

The two main outcomes of this thesis are the conceptual framework 'Fruitful friction towards common ground' and the 'Are we on the same page?' toolkit. In the following, I will first recap the implications of the framework, then the toolkits' contribution regarding social innovation.

Sub-RQ1

What does scaling deep mean and look like from a theoretical perspective?

Sub-RQ2

How does or can scaling deep look like from a practitioners perspective?

Sub-RQ3

How can design enable the translation of scaling deep into a tangible and actionable strategy?

Results and contribution of the conceptual framework

In the first phase of the project, the phenomenon of scaling deep was studied. This resulted in a conceptual framework 'Fruitful friction towards common ground' that presents my approach to use fruitful friction as a strategy to scale deep. This process aims to use friction in a fruitful way. Fruitful meaning, that friction when strategically used can be beneficial for transformation processes. Scaling deep being identified as an internal transformation process as well as a social process that focuses on alignment rather than forcing perspectives onto someone can be enabled by friction. Here, friction is the notion of becoming aware of your implicit frame and realising the difference to other peoples frames. This process is seen as a first step to create openness for change.

The conceptual framework proposes to deliberately make use of fruitful friction as a lever for change to enable the emergence of common ground.

The conceptual framework adds a new approach to the scaling deep strategies of Moore and Riddell (2015) who proposed to scale deep by generating big cultural ideas

and scale deep by investigating in transformative learning. This project introduces the concept of scaling deep by using fruitful friction. In regards to the other scaling strategies – scaling up and out (Moore & Riddell, 2015) – can the 'Fruitful friction towards common ground' framework be seen as a complement to enable social innovators to apply a holistic scaling strategy that enables them to contribute to bigger societal transformation.

Zooming out and looking at the social innovation process by Murray et al. (2010), Mulder & Kun (2019) see the potential of design to further explore the stages of sustaining and scaling to better understand how design can enable the transformation process to reach systemic change. With this thesis, I hope to contribute to fill this gap and inspire other designers and researchers to further explore this field.

In the academic design field, the notion that tension and friction in today's complex world are unavoidable and therefore needs to be dealt with is more and more recognised. The potential that lies in paradoxes and conflicting frames is realised for example by Dorst (2011). Also, Fokkinga and

Desmets' (2012) concept of rich experience embraces seemingly opposing causes and use it deliberately in design to create a positive outcome.

My project moves along with those notions, embracing tension and using it in the design practice. As one example of how this can be done, I present 'Fruitful friction towards common ground' framework and the 'Are we on the same page?' toolkit. Its' contribution will be outlined next.

Results and contribution of the toolkit

Through the second and third phase of the project, the conceptual framework was translated into the design of a toolkit. This is one example of how the abstract an intangible process of scaling deep can be made actionable and applicable for social innovators. The defined design goal was to trigger people to express their tacit perspective (frame) to facilitate the emergence and capturing of conceptual common ground. 'Are we on the same page?' is a process enabling toolkit that facilitates social innovators to conduct an online workshop using fruitful friction to reach common ground with new stakeholders.

With the toolkit, I hope to allows social innovators to engage deliberately in a scaling deep activity and align with new collaboration partners to facilitate and embody change in people's way of thinking to foster societal change.

The toolkit presents a practical solution to apply scaling deep as an addition to the conceptual framework process. This way both parts of my research questions can be answered. The framework makes the abstract and theoretical concept of scaling deep more tangible. With the toolkit, I present a way for social innovators to implement scaling deep into their projects.

Both results can bring value to the DESIGNSCAPES consortium. The research insights and conceptual framework contribute to the body of knowledge on how design can enable urban innovation. Namely, using fruitful friction as a strategy to scale social innovations deep. The toolkit provides a practical value in the sense that the workshop developed here could become one of the training modules that DESIGNSCAPES offer to social innovators.

This research project adds a new perspective to the scaling deep context and identifies a way to support social innovations in their scaling journey.

6.1.2 Limitations

The collaboration with DESIGNSCAPES allowed this project to accompany different social innovations in their scaling journey. The interviews and research activities provided a snapshot into innovators projects and scaling efforts. However, scaling social innovations is a process that takes longer than the time this project lasted. Accompanying social innovators in a more long-term oriented research could enable to gain a more holistic view of the complexity of this process and allow to gain deeper insights into innovators world to identify patterns that reoccur over time. Those insights could allow a more strategic use of the scaling deep strategy and understand the interconnectedness with other scaling strategies. Furthermore, is changing cultural roots a long term process. This project did not allow to assess whether the here presented strategy fulfils this long term goal. It would be interesting to research how the use of the framework and toolkit affects the collaborations of social innovators.

The presented toolkit is focused on social innovations that scale an idea or process. Studying if and how social innovations that scale a product can be supported to scale deep could be a next research endeavour.

The research and evaluation were conducted mainly involving social innovators. This allowed getting a good understanding of the innovators perspective but limits the diversity of viewpoints. Involving more stakeholders in the research would have allowed gaining new angles that could enrich the results. The next steps for the research could be to evaluate the toolkit in a setting where social innovators and their stakeholder co-create their shared understanding.

The digital nature of this research project is an opportunity and limitation at the same time. Having a digital tool allows it to be used and accessed across national borders and time zones. In times of COVID-19 this becomes even more relevant. A limitation of the digital tool however is that a lot of non-verbal communication is missing that would allow for deeper connection and understanding between people and could potentially enrich the scaling deep process. Translating the digital tool into a physical form and researching the implications of this for scaling deep could be an interesting research field.

6.2

PERSONAL REFLECTION

This part presents my personal reflection on the thesis project.

6.2.1 Personal reflection

This project has been a joy and challenge at the same time and especially the hurdles enabled me to learn and grow. I conclude this report by reflecting on the project and present some personal learnings.

One motivation to pursue this project was to apply what I have learned over the past two years during my Strategic Design master but also challenge myself to employ new tools and methods. This was in particular the research through design approach. Applying this process taught me that there is always more that one can learn and that finding an answer to one question will reveal ten other questions. Research is a never-ending process and it is important to keep the main research question in mind to not get lost in the richness of data that arises by using this approach. I learned to value the openness of this method since it allows to get surprised by unforeseen insights and shows that there is so much more to learn and explore. This also taught me to be mindful about the expectations I set for myself and the project and realising that one person can only do so much in a certain time.

Reading and reflecting about fixed and growth mindset, sometimes I found myself in a fixed mindset. One very personal learning is that my ability to be critical and thoughtful can be a drawback especially when working alone and in a complex project where the outcome is open. This is maybe one of the biggest difficulties I faced during this graduation because it kept me from making decisions and not questioning them again. It is one thing to critically reflect on insights but it is something else to second-guess decisions. I believe this is something where I still can learn and grow. But this project taught me to be aware of it which will enable me the change (just like the mindset shift process I encountered during this research). The isolation due to the COVID-19 pandemic affected me more than I expected. I realised how much energy and inspiration I get from interaction and communication with others which helps me to make sense of my work and prevents me to overthink and be too critical. To believe in myself and my skills was never my strong point but seeing what I have achieved gives me confidence and strengthens my identity as a designer.

What surprised me was to realise that I enjoy the academic research part of the design. Although it was a challenge because I have little experience, I enjoyed being immersed in theories and models and recognise how qualitative and theoretical research complement each other.

One personal ambition was to apply creative facilitation tools and methods in this project. In the end, I did more facilitation than I anticipated and discovered how much I enjoy it. I like the role of enabling and supporting people with and through the work I do. In addition to doing facilitation physically, now I can say that I am well skilled in online creative facilitation.

Another objective was to work more visually. Doing so really helped me to express myself. More importantly, I gain more confidence and practice in my visual communication skill. Through the visuals, I was able to make sense of the abstract and implicit phenomena my research topic entails.

In contrast to some other projects, in this project, my excitement and passion for the topic increased over time. I hope in my future career I can pursue this topic further and learn more about scaling social innovations and systemic change.

With regards to the outcome of this project, I hope I can continue working on it beyond this thesis, expanding the research and contribute to the design research field in the form of a publication.

With the toolkit, I wish to make it accessible to social innovators and develop it further to discover other fields of application.

This project helped me to shape my identity as a social strategic designer and allowed me to better understand my strength as well as points where I still can learn and grow.

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