Appendix

Design for Stakeholder Value Identification in Multi-stakeholder Projects

Jinnan Yan
Integrated Product Design, TU Delft
Master Thesis

TU Delft

AMS
AMSTERDAM INSTITUTE FOR
ADVANCED METROPOLITAN SOLUTIONS

life

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Appendix 1. Project brief

DESIGN FOR our future

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IDE Master Graduation

Project team, Procedural checks and personal Project brief

This document contains the agreements made between student and supervisory team about the student's IDE Master Graduation Project. This document can also include the involvement of an external organisation, however, it does not cover any legal employment relationship that the student and the client (might) agree upon. Next to that, this document facilitates the required procedural checks. In this document:

- The student defines the team, what he/she is going to do/deliver and how that will come about.
- SSC E&SA (Shared Service Center, Education & Student Affairs) reports on the student's registration and study progress.
- IDE's Board of Examiners confirms if the student is allowed to start the Graduation Project.

USE ADOBE ACROBAT READER TO OPEN, EDIT AND SAVE THIS DOCUMENT
Download again and reopen in case you tried other software, such as Preview (Mac) or a webbrowser.

STUDENT DATA & MASTER PROGRAMME
Save this form according the format "IDE Master Graduation Project Brief_familyname_firstname_studentnumber_dd-mm-yyyy".
Complete all blue parts of the form and include the approved Project Brief in your Graduation Report as Appendix 1 !

family name	Yan
initials	J.Y
given name	Jinnan
student number	5131650
street & no.	
zipcode & city	
country	
phone	
email	

Your master programme (only select the options that apply to you):

IDE master(s):	★ IPD ○ DfI ○ SPD
2nd non-IDE master:	
individual programme:	- - (give date of approval)
honours programme:	○ Honours Programme Master
specialisation / annotation:	○ Medisign
	○ Tech. in Sustainable Design
	○ Entrepeneurship

SUPERVISORY TEAM **
Fill in the required data for the supervisory team members. Please check the instructions on the right !

** chair	Marina Bos-de Vos	dept. / section:	DOS/MOD
** mentor	Abhigyan Singh	dept. / section:	HCD/DCC
2nd mentor	Hans Roeland Poolman		
	organisation: The AMS Institute		
	city: Amsterdam	country:	Netherlands

comments (optional)

Chair should request the IDE Board of Examiners for approval of a non-IDE mentor, including a motivation letter and c.v..

Second mentor only applies in case the assignment is hosted by an external organisation.

Ensure a heterogeneous team. In case you wish to include two team members from the same section, please explain why.

Procedural Checks - IDE Master Graduation

TU Delft

APPROVAL PROJECT BRIEF

To be filled in by the chair of the supervisory team.

chair Marina Bos-de Vos date 02 - 02 - 2022 signature Marina Bos-de Vos Digitally signed by Marina Bos-de Vos Date: 2022.02.02 09:54:13 +01'00'

CHECK STUDY PROGRESS

To be filled in by the SSC E&SA (Shared Service Center, Education & Student Affairs), after approval of the project brief by the Chair. The study progress will be checked for a 2nd time just before the green light meeting.

Master electives no. of EC accumulated in total: _____ EC

Of which, taking the conditional requirements into account, can be part of the exam programme _____ EC

List of electives obtained before the third semester without approval of the BoE

YES all 1st year master courses passed

NO missing 1st year master courses are:

name _____ date - - signature _____

FORMAL APPROVAL GRADUATION PROJECT

To be filled in by the Board of Examiners of IDE TU Delft. Please check the supervisory team and study the parts of the brief marked **. Next, please assess, (dis)approve and sign this Project Brief, by using the criteria below.

- Does the project fit within the (MSc)-programme of the student (taking into account, if described, the activities done next to the obligatory MSc specific courses)?
- Is the level of the project challenging enough for a MSc IDE graduating student?
- Is the project expected to be doable within 100 working days/20 weeks ?
- Does the composition of the supervisory team comply with the regulations and fit the assignment ?

Content: APPROVED NOT APPROVED

Procedure: APPROVED NOT APPROVED

comments

name _____ date - - signature _____

Initials & Name J.Y Yan Student number 5131650

Title of Project Design strategies for stakeholder engagement for the LIFE platform

Personal Project Brief - IDE Master Graduation

TU Delft

Design strategies for stakeholder engagement for the LIFE platform — project title

Please state the title of your graduation project (above) and the start date and end date (below). Keep the title compact and simple. Do not use abbreviations. The remainder of this document allows you to define and clarify your graduation project.

start date 27 - 01 - 2022 — 17 - 06 - 2022 end date

INTRODUCTION **

Please describe, the context of your project, and address the main stakeholders (interests) within this context in a concise yet complete manner. Who are involved, what do they value and how do they currently operate within the given context? What are the main opportunities and limitations you are currently aware of (cultural- and social norms, resources (time, money,...), technology, ...).

With the development of society and changes in the natural environment, governments and institutions are making continuous efforts to achieve the goal of "carbon neutrality" in the process of constructing or transforming cities. The Dutch transition towards carbon-neutral cities is also in full swing to make contributions to mitigate climate change and thus contribute to global, national, and regional missions. As a part of the wider urban sustainable development, the 'Local Inclusive Future Energy City Platform' (LIFE City Platform) is one of those energy transition projects, aiming to develop a district-scale, replicable, innovative, integrated and future-proof energy management platform to resolve grid problems while integrating local stakeholder interests in its design and implementation.

The LIFE project is an energy transition project that is going to build a smart energy system that will be carried out in the ArenApoort urban district, situated in Amsterdam Southeast, The Netherlands. It aims to develop a district-scale energy management platform to resolve existing grid problems and benefit relevant stakeholders within the context of the local energy transition including tenants, householders, headquarters and offices of large companies, etc. In the LIFE project, there are diverse local stakeholders including some assets owners, such as Johan Cruijff ArenA (JCA), Ziggo Dome and AFAS LIVE; headquarters and offices of large companies, such as ING Bank and Vattenfall; 5000 homes built in the 1980s focused on lower-income homeowners; transmission system operators; distribution system operators like Liander and Stedin; tech developers like Spectral and Hedgehog. For involving them in the energy transition project, fostering their communications, connections, trust, and buy-in for key initiatives, stakeholder engagement is critical. It is essential to know the values of these diverse stakeholders in order to run the LIFE project as expected. With the purpose of engaging key stakeholders and helping the LIFE project to move forward smoothly, this graduation project will focus on researching hidden values and conflicts between these values of key stakeholders and helping them to communicate with each other to be aware of these conflicts to get a better understanding and synergies between each other. In this graduation project, values or value sets can be defined as what key stakeholders want to care about and what they need to care about when they are making decisions, including their interests, financial goals, emotional needs, their social responsibilities, the needs of their basic life, etc.

The graduation project will be executed in cooperation with the AMS Institute and Co-Force. The AMS Institute is an international knowledge institute in which the Urban Energy group is focusing on concrete large-scale challenges for the energy transition of the metropolitan area of Amsterdam. Co-Force is a foundation that aims to shape the energy transition in Amsterdam Southeast from the community's perspective. They will be stakeholders in this project, and the final outcome will be evaluated with them for its feasibility, desirability and viability.

It should be noted that this graduation project starts at the beginning of 2022 when the world was still in the wave of COVID-19 infection. This presents unprecedented challenges to this graduation project, such as the limitations of human-related research.

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Initials & Name J.Y Yan Student number 5131650

Title of Project Design strategies for stakeholder engagement for the LIFE platform

introduction (continued): space for images

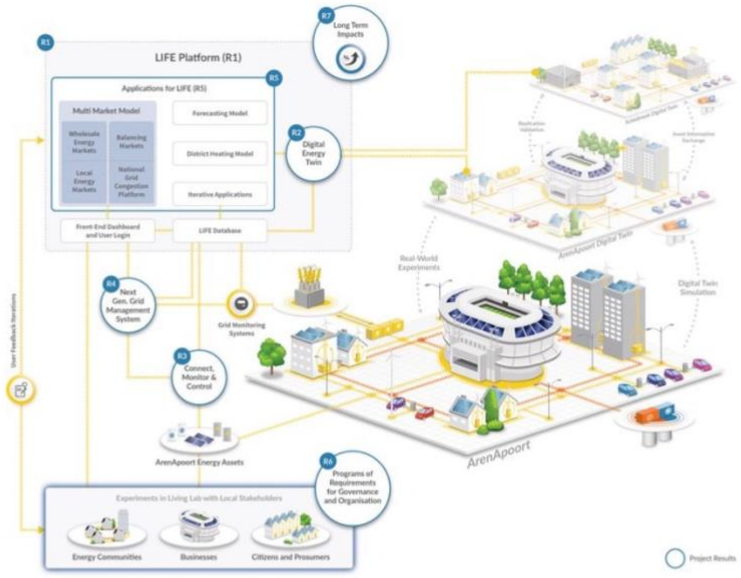

image / figure 1: Expected results of the LIFE platform

TO PLACE YOUR IMAGE IN THIS AREA:
- **SAVE THIS DOCUMENT TO YOUR COMPUTER AND OPEN IT IN ADOBE READER**
- **CLICK AREA TO PLACE IMAGE / FIGURE**

PLEASE NOTE:
- **IMAGE WILL SCALE TO FIT AUTOMATICALLY**
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- **IF YOU EXPERIENCE PROBLEMS IN UPLOADING, COVERT IMAGE TO PDF AND TRY AGAIN**

image / figure 2:

PROBLEM DEFINITION **

Limit and define the scope and solution space of your project to one that is manageable within one Master Graduation Project of 30 EC (= 20 full time weeks or 100 working days) and clearly indicate what issue(s) should be addressed in this project.

There are three main problems that need to be defined in this graduation project. The first thing is choosing key stakeholders. This graduation project involves diverse stakeholders as mentioned in the INTRODUCTION above. It is difficult to consider all of them in this short-term project. Therefore, it is essential to choose some key stakeholders as the main target groups of this graduation project with the collaboration with the LIFE project team. Another pressing challenge to overcome is the emergence of conflicting value sets represented by different key stakeholders. Although each of these stakeholder interests is aimed at promoting the energy transition, they often contradict each other because they are currently primarily focused on their own values. Key stakeholders belong to different groups who have different value sets. However, knowledge of these end-users' individual and communal values is mostly missing. Furthermore, there are conflicting values represented by different key stakeholders. For example, Transmission System Operators want to tap into flexible assets in the built environment to help balance the frequency of the network. In contrast, Balance Responsible Parties want to use the same flexibility assets to optimize their trading activities. However, distribution system operators also want to steer those very same flexibility assets. They want to use them to ensure that their networks can handle the increasing peaks of demand and supply, which come hand in hand with the energy transition. Lastly, the values of key stakeholders and conflicts between different value sets are not only kept hidden from the researchers, but also from stakeholders themselves. These values are not obvious to the stakeholders or even perceived when they are not directly discussed.
Therefore, It is necessary to research those diverse values of target groups, find hidden conflicts and create synergies between them. Afterwards, a holistic stakeholder engagement strategy or service which can grow awareness of key stakeholders on different values and conflicts is needed.

ASSIGNMENT **

State in 2 or 3 sentences what you are going to research, design, create and / or generate, that will solve (part of) the issue(s) pointed out in "problem definition". Then illustrate this assignment by indicating what kind of solution you expect and / or aim to deliver, for instance: a product, a product-service combination, a strategy illustrated through product or product-service combination ideas, ... In case of a Specialisation and/or Annotation, make sure the assignment reflects this/these.

Based on the defined problems mentioned above, the main assignment of this graduation project is to find hidden values of those selected key stakeholders, and then show them the results to raise their awareness about their own values and conflicts between these values by using personas or some other design methods and tools, and to engage them to help the LIFE project run successfully.

The outcome should be understandable for key stakeholders and consider issues from cultural & societal, design & experience perspectives. The broad questions are explored as follows:
Research Questions:
1. Who can be the target groups of this graduation project among various different stakeholders?
2. What are their value sets? (As mentioned above, values or value sets are what key stakeholders want to care about and what they need to care about when they are making decisions, including their interests, financial goals, emotional needs, their social responsibilities, the needs of their basic life, etc.)
3. What are the conflicts between those different value sets?
Design Questions:
1. How to show target groups the findings of conflicts between them and their different values of them? How to raise their awareness of research findings?
2. How to help target groups to communicate with each other and help them create synergies in the LIFE project?
The final goal of this graduation project is to establish a way to help the LIFE platform engage its relevant stakeholders by using design methods, making sure that their values and conflicts are known so that they can establish a more direct connection and build communication between various relevant stakeholders and the LIFE platform.

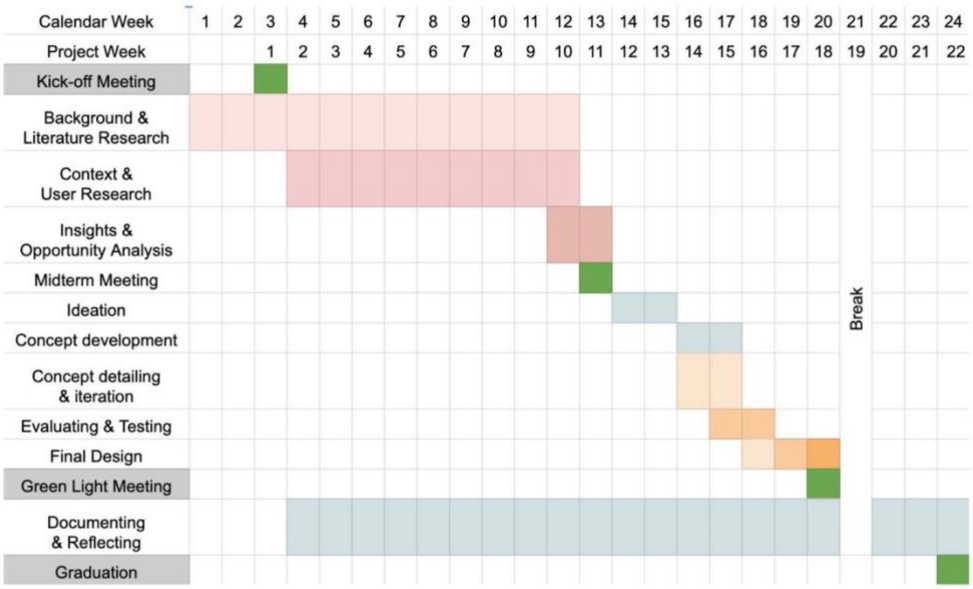
Initials & Name J.Y Yan Student number 5131650

Title of Project Design strategies for stakeholder engagement for the LIFE platform

PLANNING AND APPROACH **

Include a Gantt Chart (replace the example below - more examples can be found in Manual 2) that shows the different phases of your project, deliverables you have in mind, meetings, and how you plan to spend your time. Please note that all activities should fit within the given net time of 30 EC = 20 full time weeks or 100 working days, and your planning should include a kick-off meeting, mid-term meeting, green light meeting and graduation ceremony. Illustrate your Gantt Chart by, for instance, explaining your approach, and please indicate periods of part-time activities and/or periods of not spending time on your graduation project, if any, for instance because of holidays or parallel activities.

start date 27 - 01 - 2022 17 - 06 - 2022 end date



The project process mainly includes the following steps:
- Determine the project scope
Background research to know information about the LIFE project such as the goal, outcomes and advantages, define the research scope, challenges and project assignments.
- Context & User research
User research to get a better understanding of the values of different stakeholders, such as visiting local community centres, interviewing local residents and companies.
- Analysis & Opportunities
Analyze the research results by using context mapping skills and other design methods and tools, conclude the hidden values and conflicts that need to show to stakeholders.
- Final design directions
Find an appropriate way to show key stakeholders research results, raise their awareness and help them to create synergies between each other.

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Title of Project Design strategies for stakeholder engagement for the LIFE platform

Appendix 2. Interview guide for understanding LIFE

To know the structure

- How many stakeholders are there now in the LIFE project?
- Who are these stakeholders?
- What are their roles?
- What are the connections between them?

To know types of stakeholders

- What are their types?
- How do you group different types of stakeholders?
- Are there other stakeholders that not in the consortium?
- Who are those external stakeholders?

To know the managers

- What are your responsibilities in the project?
- Which organization do you belong to?
- What are your responsibilities in your organization?

To know changes

- Are there any changes compared to the time of writing project proposal?
- Are there any new stakeholders joining?

Appendix 3. Interview guide

For project managers:

To know experiences

- Have you had activities to know stakeholders desired values?
- How did you conduct those activities?
- What is the problem that you met when you are trying to know stakeholders' thoughts?
- Do you know the reason of these problems?
- What factors do you think influenced stakeholders' response?

To know the effects/results

- What are the results of your previous communicating?
- Are you satisfied with those results?

To know reflection

- What are your feelings about the way that the LIFE project Identifying stakeholders' objectives?
- What will you do if you want to know value changes?

To know wishes

- How do you see the importance of identify values in LIFE project process?
- Are their new stakeholders joining now or will join in the future?
- What requirements do you have if there is a tool for you to identify stakeholders' values?
- Why do you have these requirements?

For stakeholders

The interview for stakeholders is not for directly asking the reason they speak out or not speak out desired values, but observing their reactions during the interviews.

- What tasks do you need to do in the life project?
- what's your responsibility as the contact person?
- How did you be involved in this project? How did you know the life project?
- How did your organization be involved in LIFE?
- What are the values and benefits that your organization want to achieve?
- What are reasons and stories behind those desires?

Appendix 4. Previously used methods

Two activities and three methods in series 1

Activity	1-on-1 interview		Group exercise
Method	1-on-1 conversation	Written feedback	Small group creation

Strengths & weaknesses of methods in Series 1

	Series 1		
Activity	1-on-1 interview		Group exercise
Method	1-on-1 conversation	Written feedback	Small group creation
Strengths	Good for digging deeper into information; Observe stakeholders' mentality; Prevent stakeholders from skipping questions; Prevent misunderstanding between the interviewer and stakeholders. Make sure of independent answers.	No time limitation for participants.	Provide the possibility of enhancing mutual understanding; (but it depends on how to set the detailed steps)
Weaknesses	Need lots of time because of large numbers of stakeholders; Require the conductor to speak the same language as the stakeholders; Only get short answers sometimes.	May cause misunderstanding; Answers are short and not elaborate.	Hard to involve all partners. (but the conductor mau could accept this defect)

Four activities and four methods in series 2

Activity	Introduction	Separate Creation	Small Group Exercise		Big Group Workshop
Method	Presentation & Discussion	Separate Creation	Survey	Small Group Creation	Presentation & Discussion

Strengths & weaknesses of the methods in series 2

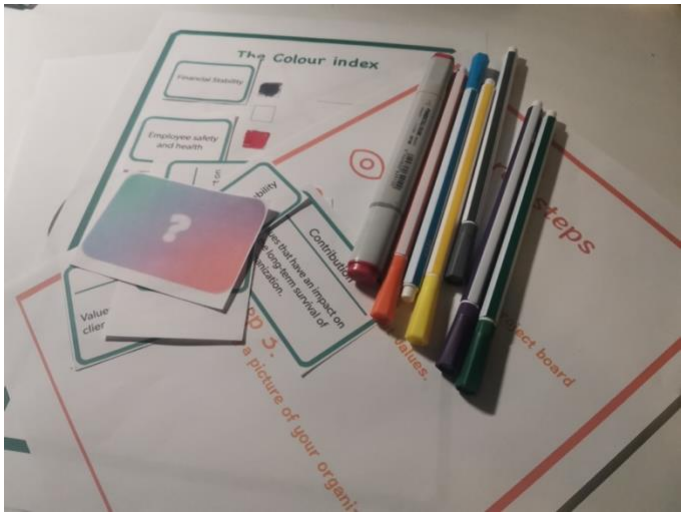
	Series 2				
Activity	Introduction and Big Group Workshop	Separate Creation	Small Group Exercise		Big Group Workshop
Method	Presentation & discussion	Separate Creation	Survey	Small Group Creation	Presentation & Discussion
Strengths	Good understanding on the presenter;	No time limitation; Could get rich and diverse answers; The conductor team provided good steps and tools.	Good for stakeholders to define their priority; Provide a chance to see other stakeholders' user stories.	Enhance mutual understanding.	
Weaknesses	Possibility of using a lot of time; The condition was chaotic and disordered.	No guidance or other support from conductors; Unstructured outcomes because of the unstructured template; Limited opportunity to refine answers	Difficult in ranking because of large numbers of user stories.	The creator of user stories is not clear (but it is not the focus point)	

Appendix 5. role play materials

The LIFE project: https://projecten.topsectorenergie.nl/projecten/local-inclusive-future-energy-life-city-platform-34974 https://www.ams-institute.org/urban-challenges/urban-energy/local-inclusive-future-energy-life-city-platform/	
Alliander	https://werkenbij.alliander.com/vakgebieden/
Role in the LIFE project	Distribution operator, control the local grid management.

The LIFE project: https://projecten.topsectorenergie.nl/projecten/local-inclusive-future-energy-life-city-platform-34974 https://www.ams-institute.org/urban-challenges/urban-energy/local-inclusive-future-energy-life-city-platform/	
Spectral	https://spectral.energy/
Role in the LIFE project	Technology developer, and system integrator.

Printed tools as materials in role play sessions:



Questions for "stakeholders"

- Did you recognize the badge during the process? Did you ask about it?

- Did you have the willingness to talk about desired values before the process?
- Did you speak out values that you desire in the process?
- Did the Project board increase your knowledge about the project?
- Did the closed-ended task facilitate you to speak out?

Questions for the “facilitator”

- Is there a dialogue about the facilitator’s badge?
- Did they communicate their desired values with you?
- What is their willingness of speak out values during the process?
- Have you collected desired values from stakeholders?

Appendix 6. Value cluster cards set

Appendix 7. Value cards set

Write your own thoughts.

Performance

Increasing productivity

Performance

Increasing efficiency

Performance

Enhancing quality

Performance

Large-scale environmental contribution

Performance

Increased efficiency in knowledge sharing

Performance

Increased research opportunities

Performance

Remarkable scientific progress

Evolution

Promoting innovation

Evolution

Enhancing creativity

Evolution

Accountability

Evolution

Risk-taking

Evolution

Prioritizing the development goals

Evolution

Increased efficiency in knowledge sharing

Evolution

Building new labs and project teams for the energy-related topics

Evolution

Gaining experience with energy transition practice and research

Alignment

Strengthening the company identity of honestyquality

Alignment

Open communication

Alignment

Commitment

Alignment

Communicating the development goals and actions on energy problems

Alignment

Communicating the willingness to support and help

Alignment

Applying innovative research and technologies to real problems

Alignment

Strengthen the image as a entrepreneurial problem-solver

Collaboration

Internal and external connectedness

Collaboration

Closer bonding with involved organizations

Collaboration

Access to more data and up-to-date information

Collaboration

Internal practice opportunities for students and employees

Collaboration

(external) Opportunities to partner with other organizations

Contribution

More real-practice opportunities for students and employees

Contribution

Large-scale environmental contribution

Contribution

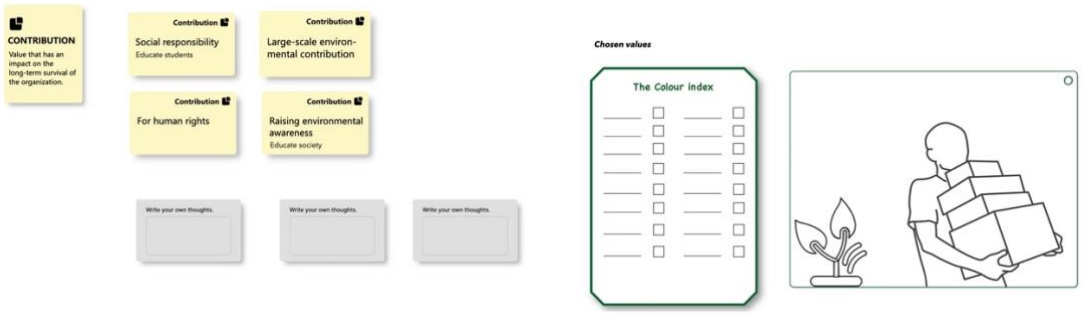
Human rights

Contribution

Social responsibility

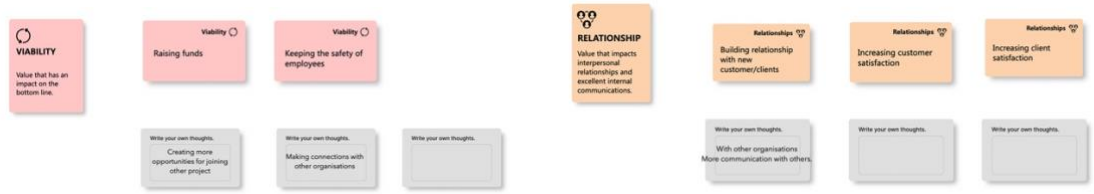
Appendix 8. Slides for stakeholder test

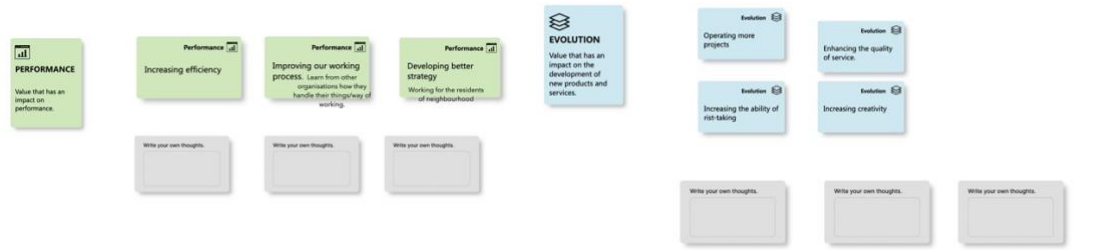
7.1 Slides for TU Delft

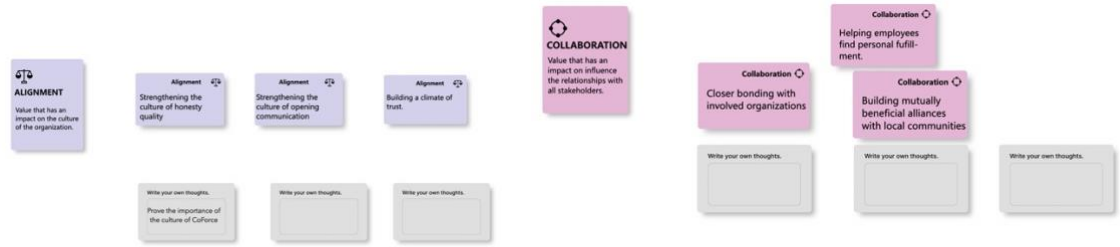


7.2 Slides for CoForce

Only value cards are different from slides for TU Delft.







Appendix 9. Questionnaire and interview questions for stakeholders

Part 1

1. As a stakeholder, how much do you agree this design can increase stakeholders' ability to express desired values?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

2. As a stakeholder, how much do you agree this design can increase stakeholders' willingness to express desired values?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

3. How much do you think the whole process can help you to express desired values as complete as possible?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

   What do you think might be the reason that stakeholders do not express their desired values?

4. How much do you think the whole process can help you to express reasons and stories of desired values?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

   What do you think might be the reason that stakeholders do not express their stories/reasons behind values?

5. How much do you agree the drawing process can help to express priorities?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

Part 2

The process is clear for me.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

The time spent is acceptable for me.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

The process is effortless for me.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

The process is concern-free for me.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

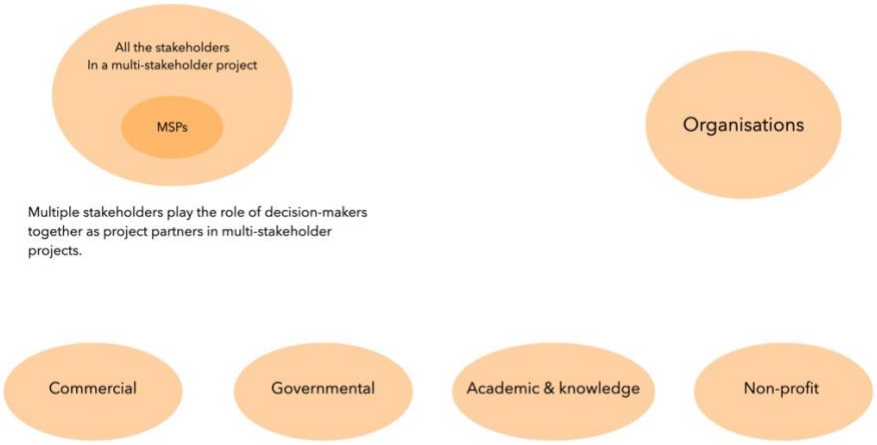
Part 3

1. What value do you think this design could bring to the facilitator?
2. What value do you think this design could bring to a multi-stakeholder project?
3. With the development of a multi-stakeholder project, do you think this design would still be feasible and desirable? What do you think is the viability of this design?
   - What is the weakness?
   - Do you have suggestions to improve it?
4. With the development of the type of context, what do you think is the viability of this design? Do you think this design would still be feasible and desirable?
   - What is the weakness?
   - Do you have suggestions to improve it?
5. Except the values, reasons and stories, what other aspects about values do you think are important to share for a multi-stakeholder project?

Appendix 10. Two interviews with contact persons (Confidential)

Appendix 11. Slides for facilitator tests

Project context



Project goal

Developing an SVI process that can be used by facilitators in the multi-stakeholder project context

***to identify stakeholders' desired values** and **reasons behind**,*

*and **offer facilitators effortless experience** during the process*

by providing interventions that can elicit desired values of stakeholders from them.

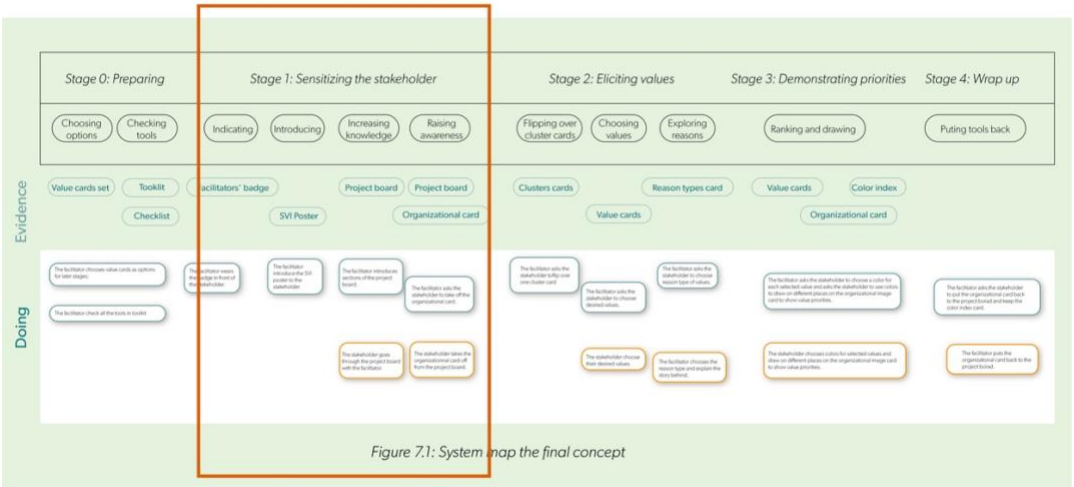
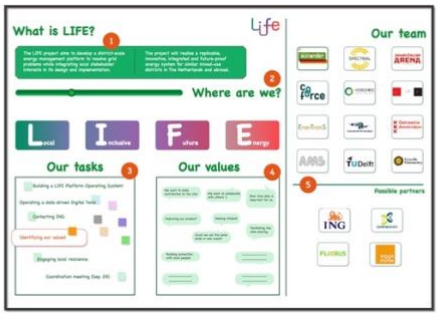


Figure 7.1: System map the final concept

Steps



The concept overview - An SVI (Stakeholder value identification) Process

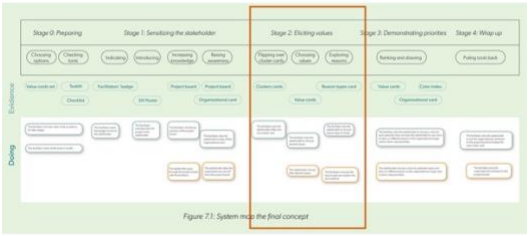


Figure 7.1: System map the final concept

The direction: Prevent stakeholders from evading questions

Instead of asking "what are your desired values/ benefits/goals in this project?"

Giving options for them to choose.

Sociology

It is inefficient to answer broad, abstract, open-ended questions.

Using concrete tasks is helpful to explore abstract concepts

Materials such as photographs can function as a third party to be close to the informant

Closed-ended questions are efficient in getting responses.

Stage 2: Eliciting values

Value clusters

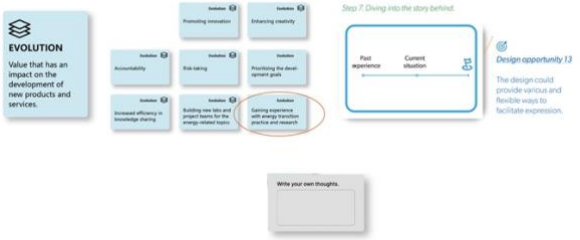
Value cards

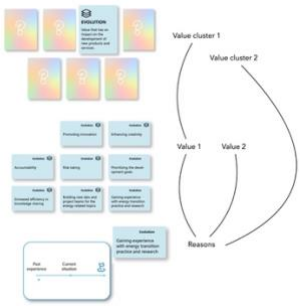
Stage 2: Eliciting values

Value clusters

Stage 2: Eliciting values

Value cards





Advantages

1. Using closed ended questions to prevent stakeholders from evading questions in this sensitive topic.
2. Offering options for stakeholders to lower their efforts to think about answers in such an abstract topic.
3. Inspiring.
4. Do not rely on the facilitator's interview skills.

Chosen values

Appendix 12. Questionnaire and interview questions for facilitators

For the feasibility

1. What do you think the feasibility of this design as a project manager? / Do you think it is feasible to implement this design in a multi-stakeholder project?
2. What aspects do you think will influence its feasibility?
3. What do you think is the easiest part to conduct this design?
4. What would be the main challenge to implement this design?

If you are the facilitator, how much would you rate for the following value:

This design could ignore the personal interview/communicate skills of the facilitator.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

This process is easy to conduct.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

This process is consider-free.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

The time spent is acceptable.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

Other value and rates:

For the desirability

1. How much do you agree this design can increase stakeholders' ability to express desired values?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

2. How much do you agree this design can increase stakeholders' willingness to express desired values? / Do you think stakeholders are willing to speak out their values by this design? Why or why not?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

3. If you are the facilitator, how much do you think the whole process can help you to identify stakeholders' desired values as complete as possible?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

4. If you are the facilitator, how much do you think the whole process can help you to identify reasons and stories of stakeholders' desired values?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

For the viability

1. What value do you think this design could bring to the facilitator?
2. What value do you think this design could bring to a multi-stakeholder project?
3. If you are the facilitator, how would you plan to identify stakeholders' desired values with this design? Could you describe your process simply?
4. With the development of a multi-stakeholder project, do you think this design would still be feasible and desirable? What do you think is the viability of this design?
   - What is the weakness?
   - Do you have suggestions to improve it?
5. With the development of the type of context, what do you think is the viability of this design? Do you think this design would still be feasible and desirable?
   - What is the weakness?
   - Do you have suggestions to improve it?
6. For saving and managing data, which kind of way do you suggest? For example, using an online template or using papers to record the collected data.
7. Except the values, reasons and stories, what other aspects about values do you think are important to know?

Appendix 13. Two interviews with facilitators (Confidential)

Appendix 14. Test results

Result - TU Delft

Part 1

1. As a stakeholder, how much do you agree this design can increase stakeholders' ability to express desired values?

	o	o	o	o	o	o	**o**	o	o	o	
Not at all	1	2	3	4	5	6	**7**	8	9	10	Fully agree

2. As a stakeholder, how much do you agree this design can increase stakeholders' willingness to express desired values?

	o	o	o	o	o	o	**o**	o	o	o	
Not at all	1	2	3	4	5	6	**7**	8	9	10	Fully agree

3. How much do you think the whole process can help you to express desired values as complete as possible?

	o	o	o	o	o	o	**o**	o	o	o	
Not at all	1	2	3	4	5	6	**7**	8	9	10	Fully agree

What do you think might be the reason that stakeholders do not express their desired values?

4. How much do you think the whole process can help you to express reasons and stories of desired values?

	o	o	o	o	o	o	o	o	**o**	o	
Not at all	1	2	3	4	5	6	7	8	**9**	10	Fully agree

What do you think might be the reason that stakeholders do not express their stories/reasons behind values?

5. How much do you agree the drawing process can help to express priorities?

	o	o	o	o	o	**o**	o	o	o	o	
Not at all	1	2	3	4	5	**6**	7	8	9	10	Fully agree

Part 2

The process is clear for me.

	o	o	o	o	o	o	o	o	o	**o**	
Not at all	1	2	3	4	5	6	7	8	9	**10**	Fully agree

The time spent is acceptable for me.

	o	o	o	o	o	o	o	o	**o**	o	
Not at all	1	2	3	4	5	6	7	8	**9**	10	Fully agree

The process is effortless for me.

	o	o	o	o	o	o	**o**	o	o	o	
Not at all	1	2	3	4	5	6	**7**	8	9	10	Fully agree

The process is concern-free for me.

	o	o	o	o	o	o	o	o	o	**o**	
Not at all	1	2	3	4	5	6	7	8	9	**10**	Fully agree

Result – CoForce

Part 1

1. As a stakeholder, how much do you agree this design can increase stakeholders' ability to express desired values?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

2. As a stakeholder, how much do you agree this design can increase stakeholders' willingness to express desired values?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

3. How much do you think the whole process can help you to express desired values as complete as possible?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

   What do you think might be the reason that stakeholders do not express their desired values?

4. How much do you think the whole process can help you to express reasons and stories of desired values?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

   What do you think might be the reason that stakeholders do not express their stories/reasons behind values?

5. How much do you agree the drawing process can help to express priorities?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

Part 2

The process is clear for me.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

The time spent is acceptable for me.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

The process is effortless for me.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

The process is concern-free for me.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

Result – Manager D.I.

For the feasibility

1. What do you think the feasibility of this design as a project manager? / Do you think it is feasible to implement this design in a multi-stakeholder project?
2. What aspects do you think will influence its feasibility?
3. What do you think is the easiest part to conduct this design?
4. What would be the main challenge to implement this design?

If you are the facilitator, how much would you rate for the following value:

This design could ignore the personal interview/communicate skills of the facilitator.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

This process is easy to conduct.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

This process is consider-free.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

The time spent is acceptable.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

For the desirability

1. How much do you agree this design can increase stakeholders' ability to express desired values?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

2. How much do you agree this design can increase stakeholders' willingness to express desired values? / Do you think stakeholders are willing to speak out their values by this design? Why or why not?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

3. If you are the facilitator, how much do you think the whole process can help you to identify stakeholders' desired values as complete as possible?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

4. If you are the facilitator, how much do you think the whole process can help you to identify reasons and stories of stakeholders' desired values?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

Result – Manager Z.F

For the desirability

1. How much do you agree this design can increase stakeholders' ability to express desired values?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

2. How much do you agree this design can increase stakeholders' willingness to express desired values? / Do you think stakeholders are willing to speak out their values by this design? Why or why not?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

3. If you are the facilitator, how much do you think the whole process can help you to identify stakeholders' desired values as complete as possible?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

4. If you are the facilitator, how much do you think the whole process can help you to identify reasons and stories of stakeholders' desired values?

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

For the feasibility

1. What do you think the feasibility of this design as a project manager? / Do you think it is feasible to implement this design in a multi-stakeholder project?
2. What aspects do you think will influence its feasibility?
3. What do you think is the easiest part to conduct this design?
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If you are the facilitator, how much would you rate for the following value:

This design could ignore the personal interview/communicate skills of the facilitator.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

This process is easy to conduct.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

This process is consider-free.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

The time spent is acceptable.

	o	o	o	o	o	o	o	o	o	o	
Not at all	1	2	3	4	5	6	7	8	9	10	Fully agree

Appendix 15. High-quality images

Ideation

To clarify the attribute of the organization

Description: Some values of an organization are hidden because of their organizational type. They hide this part for their living. But it's actually obvious if you know their attributes.

Target group: All

Solution

How to raise stakeholders' awareness that they are playing the role of project partner?

Contact person may have the willing to talk with facilitators about their values when their awareness of being project partners are raised.

Target group: All

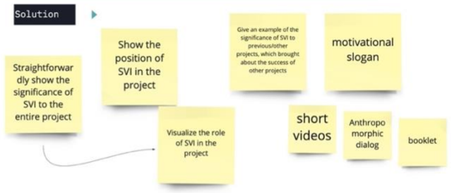
Solution

How to raise stakeholders' awareness of the importance of the SVI process?

Stakeholders would have higher motivation to speak out their values when they value the SVI very important.

Target group: All

Solution



How to communicate stakeholders the connect between the SVI with the internal collaboration?

..

Target group: All

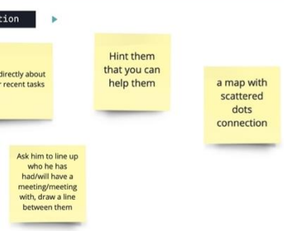
Solution

How to dive into the situation of the stakeholder and trigger their need of building connection?

...

Target group: All

Solution



How to increase familiarity between facilitators and stakeholders?

...

Target group: All

Solution

How to indicate the neutral position of the facilitator?

...

Target group: All

Solution

How to give stakeholders positive feedbacks for encouraging them keep expressing?

...

Target group: All

Solution

How to communicate the simplify of the process during the SVI

Existing tiring experience with the previous activities leads to a low motivation to express in the SVI process

Target group: All

Solution

How to increase the project related knowledge for stakeholders?

Target group: All

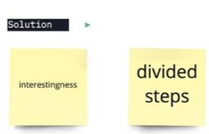
Solution

How to reduce stakeholders' negative feeling on a possible long process?

...

Target group: All

Solution



How to clarify the current stage of project to stakeholders?

...

Target group: All

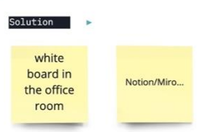
Solution

How to align the SVI process with current routines, tasks, materials, etc.?

...

Target group: All

Solution



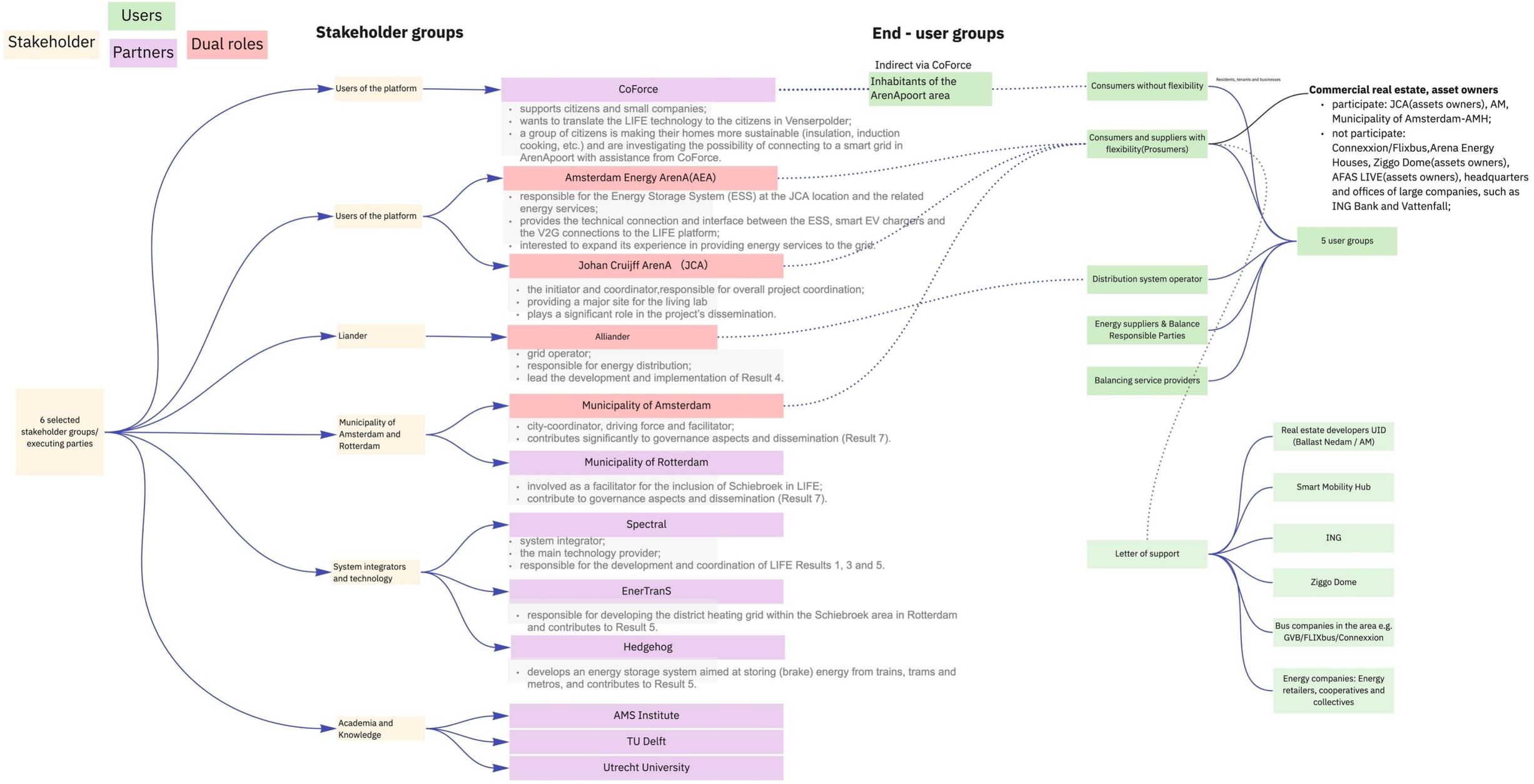


Figure 3.2: Placing collected data on Miro

Group		Stakeholder	Logo	Roles	Responsibility	Connect to the result
1	**Alliander**	Alliander		Grid owner; Grid operator; Distribution system operator (DSO).	the partner with energy distribution responsibility. lead the development and implementation of Result 4.	3, 4, 5, 6 and 7
2	**Municipalities**	Amsterdam		Policy maker; Project initiator; legistator.	participates as city-coordinator, driving force and facilitator; fills and safeguards the Governance aspects in this public-private partnership.	6, 7
		Rotterdam		Policy maker; Legistator.	contributes to the LIFE project as a sounding board and help evaluate the results of the projects in regards to municipality goals like natural gas-free; sharing of the gained knowledge, dissemination and active knowledge exchange with the municipality of Amsterdam	6, 7
3	**System integrators and technology developers**	Spectral		Technology developer; the lead system integrator;	responsible for the development and coordination of LIFE Results 1, 3 and 5.	all
		EnerTranS		Supporter	responsible for developing the district heating grid within the Schiebroek area in Rotterdam and contributes to Result 5.	3, 6 and 7
		Hedgehog		Supporter	developing an energy storage system aimed at storing (brake) energy from trains, trams and metros, and contributes to Result 5.	3, 6 and 7
4	**Academia and Knowledge institutions**	AMS		Research partner	social engagement and dissemination	6, 7
		TU Delft		Research partner; Technology developer;	responsible for the development and coordination of Result 2, the digital twin model; contribute to the research of stakeholder engagement and inclusion.	2, 4, 5, 6 and 7
		Utrecht University		Research partner	responsible for the development and coordination of Result 6, new governance structures and replication.	6, 7
5	**End Users**	JCA		Asset owner; Project initiator; End user.	responsible for overall project coordination, providing a major site for the living lab, and plays a significant role in the project's dissemination.	6, 7
		CoForce		User platform; The agency to connect local small users.	engages the residents of Venserpolder for the project by contributing to Results 1, 2, 3, 6 and 7. local inhabitants within the ArenAPoort will be approached to participate in the project through partner CoForce	1, 2, 3, 6 and 7

Figure 4.3: Project partners (High-quality image in Appendix 16)

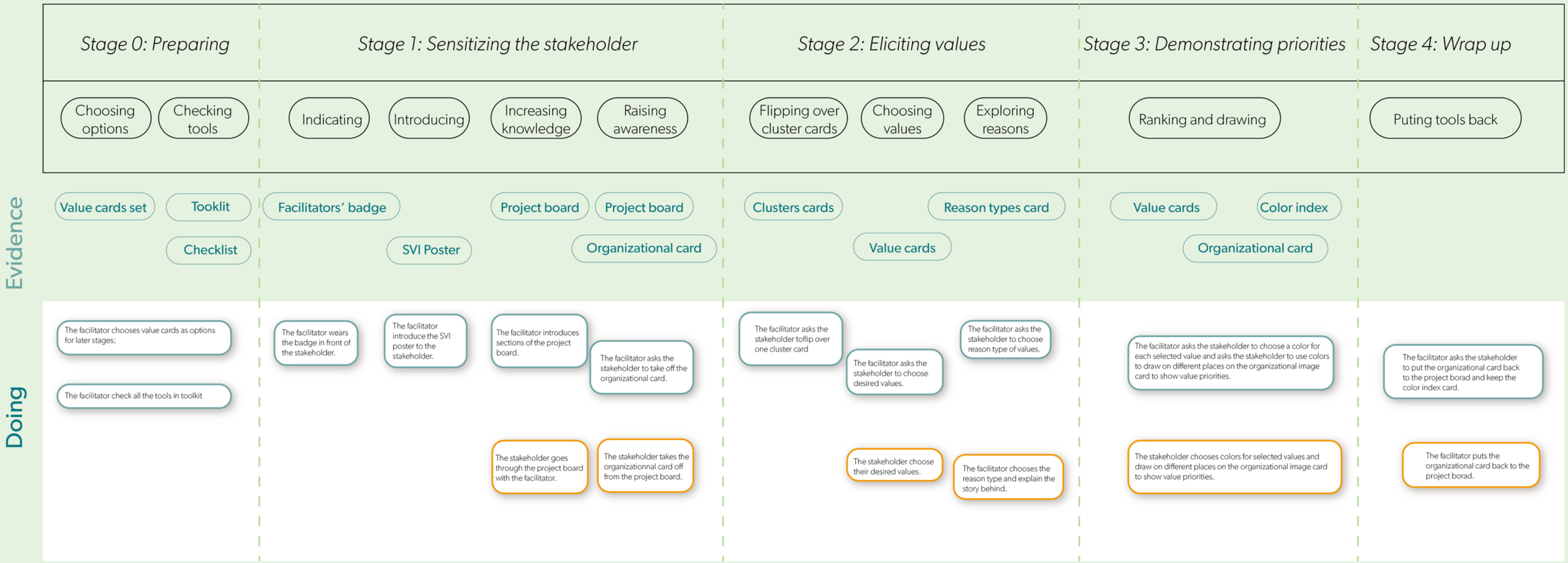


Figure 7.1: System map the final concept

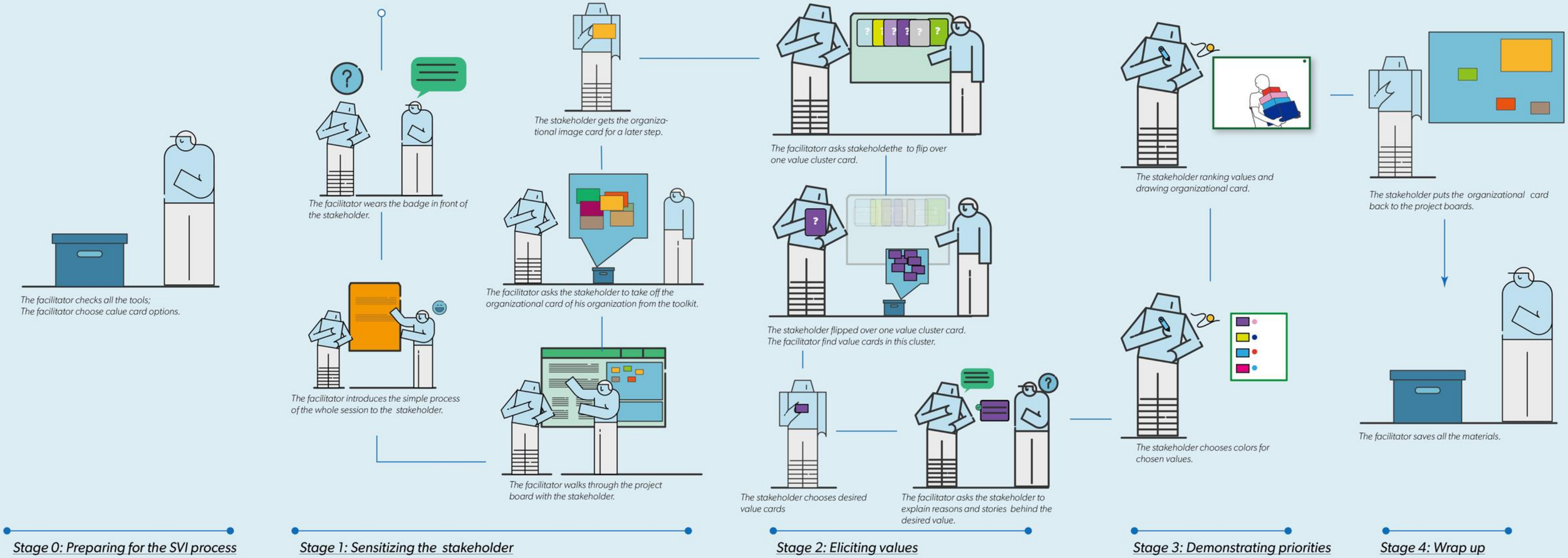


FIgure 7.2: The process flow of the final concept