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Master thesis — Strategic Product Design
Delft University of Technology

Appendix

Navigating
Value Dynamics

A tool for mapping multi-stakeholder
value ecosystems in the LIFE Project

Appendix

Confidential Appendixes

A
Project Brief

Project brief to kickstart the project including introduction, problem definition, assignment, project approach, motivations and personal ambition.

Personal Project Brief - IDE Master Graduation

Strategic Plan to engage large asset owners in 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   01 - 03 - 2023   09 - 08 - 2023   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, ...).

This project will be part of the LIFE (Local Inclusive Future Energy) platform, developed by the Amsterdam Institute of Metropolitan Science to explore different enablers of the energy transition. The LIFE platform offers users in the area the opportunity to make decisions on energy sharing and storage based on economic factors, sustainability, or support of the energy network (AMS Institute, 2023). TU Delft is one of the partners currently researching the engagement and inclusion of stakeholders in Amsterdam Zuidoost.

The IDE faculty has been involved in the project for two years in close collaboration with the AMS Institute project consortium. This graduation project will build on the previous knowledge of graduate students and the collaborative work between IDE and the LIFE project consortium. Three other IDE students will start working on the project simultaneously with different scopes. This will provide an opportunity for collaborative efforts and idea-sharing to address a complex problem.

For the LIFE platform to operate, Amsterdam Zuidoost relies on the participation of a wide range of stakeholders: Energy infrastructure (energy providers, grid operators), small and large businesses (stores, shopping malls, large entertainment venues, banks), and residents.
Some of the large companies could be classified as large asset owners. Large Asset Owners (LAOs) are defined as potential participants in the platform, companies who have high energy consumption and own or potentially have access to their own energy assets (batteries, power generation capacity).

Stakeholders in the area have been identified but engaging with them remains a challenge. As a client, the LIFE project consortium mediates exchanges with LAOs project partners such as Johan Cuijff ArenA and potential partners such as Ziggo Dome, ABN Amro, and ING bank. Current partners are open to collaboration, but as they have been approached before, interactions require prior planning, which could be a limitation.

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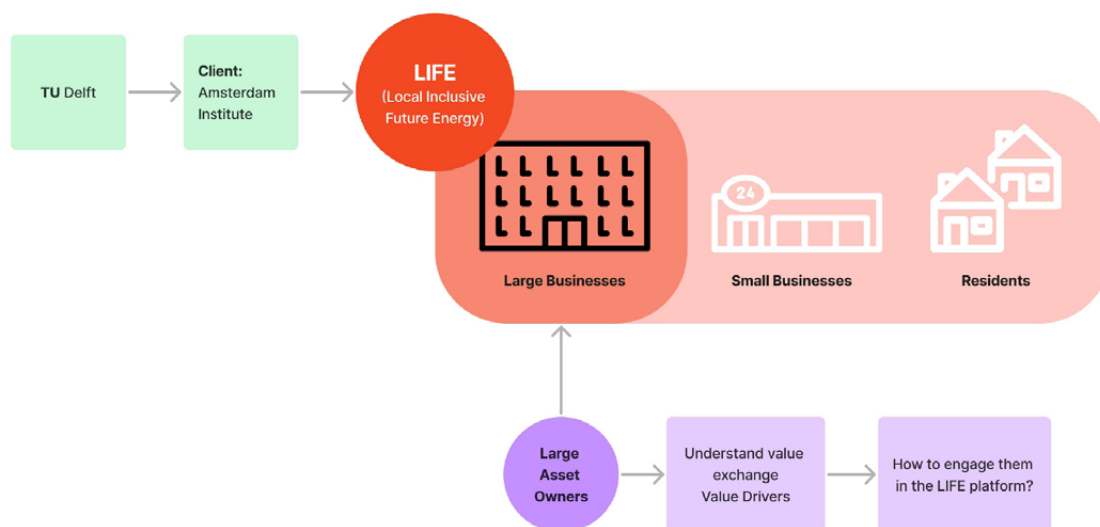
introduction (continued): space for images

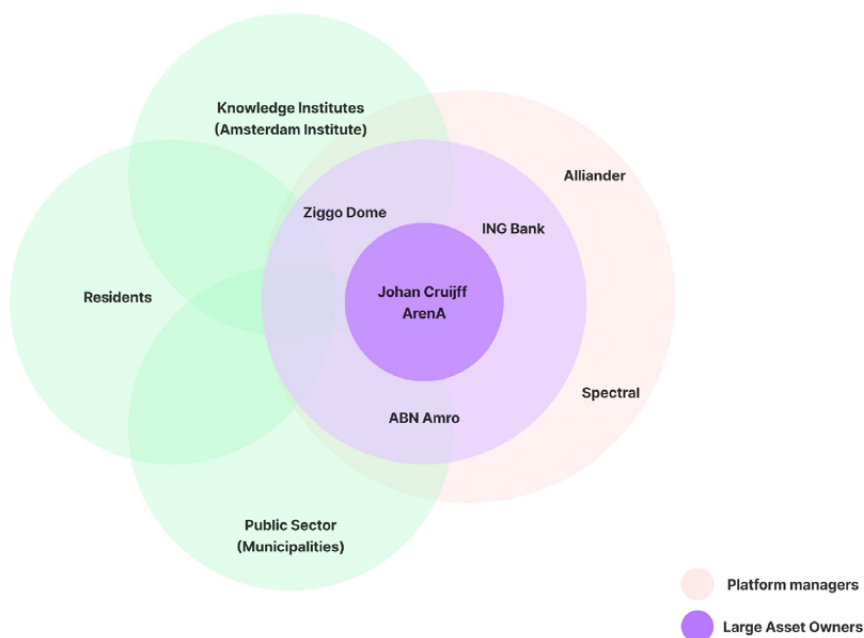image / figure 1:   Project context and scope

image / figure 2:   Stakeholder map and focus on Large Asset Owners

Initials & Name _____   Student number _____

Title of Project _____

4

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.

The LIFE project explores a smart energy exchange platform to provide socio-economic benefits and opportunities to local residents and communities in Amsterdam Zuidoost. The increasing demand for energy use and the limited capacity of the current energy network in the area calls for an alternative infrastructure or models to prepare it for the future.

The LIFE platform offers the opportunity to make decisions about energy exchange, but an important aspect is still missing. To achieve real benefits for residents and communities, the role of large asset owners within the platform needs to be defined. Currently, Large Asset Owners (LAOs) understand energy supply, storage, and distribution from a technical perspective. For LAOs to be engaged in the transition, their interests and values need to be mapped, in order to explore new opportunities that might get them onboard the LIFE platform and provide socio-economic benefits to the community.

The scope of the project focuses on the main LAOs in the area. Priority stakeholders have been identified based on the impact they bring to the platform. For this project, Johan Cruijff ArenA will be the main focus, as it is not only an asset owner but a key project partner.

The project is divided into the following main steps:
Based first on previous research (literature review and LIFE project research), understand the context and the role of the actors involved. Next, conduct qualitative research on the current operation of the stakeholders, focusing on the values exchanged and their drivers. Finally, synthesize the results and translate them into value and business propositions for LAOs to present new opportunities that incentivize them to participate in the LIFE platform.

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.

The main assignment of this graduation project is to explore new value-adding opportunities for Large Asset Owners in the Amsterdam Zuidoost area to engage them within the LIFE platform.

First, understanding the current role of Large Asset Owners and other stakeholders in the area. Then, devise potential value and business propositions for Johan Cruijff ArenA and if possible within the project timeline, other LAOs.The propositions will be developed into a strategic roadmap to promote LAO's engagement in activities relevant to the design and implementation of the LIFE platform.

The initial research questions are the following:
1. How to translate the objectives and goals of the LIFE platform project into potential value opportunities for LAOs?
2. How can we make the values tangible and attractive for LAOs to engage in the LIFE platform?
3. How can we develop value propositions that benefit the multi-stakeholder ecosystem of Amsterdam Zuidoost?

Initials & Name _____   Student number _____

Title of Project _____

5

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 1 - 3 - 2023   9 - 8 - 2023 end date
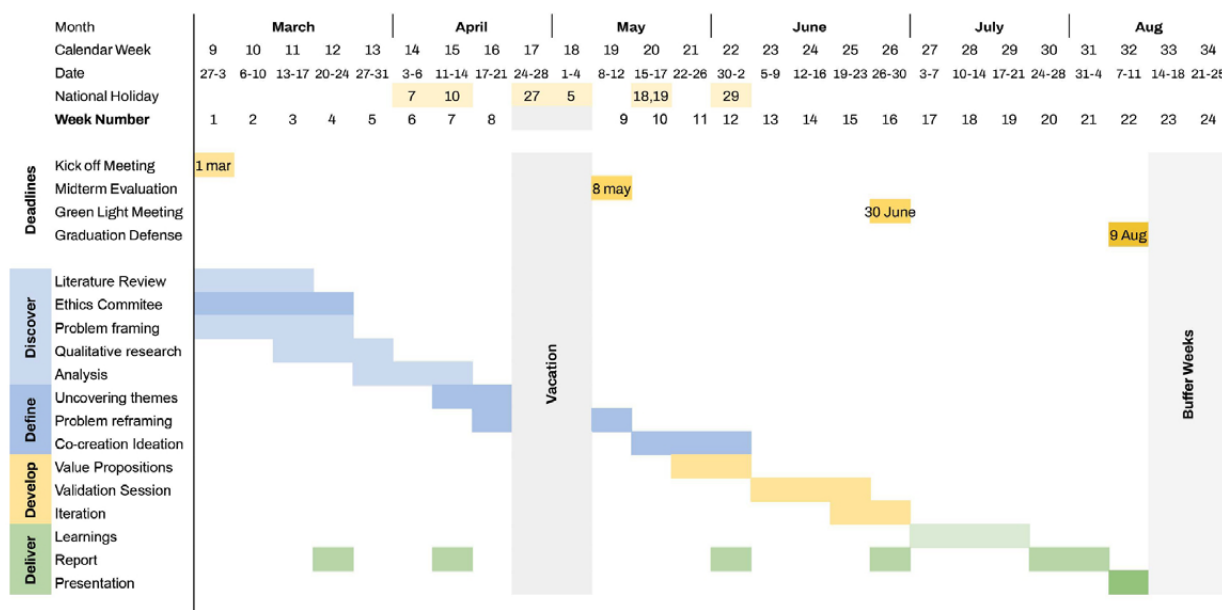
Discover: Familiarize with previous LIFE platform research. Attend the first consortium meetings to understand the context and frame the problem. Conduct interviews with relevant research experts at AMS Institute and stakeholders at Johan Cruijff ArenA. Plan & schedule co-creation sessions with Johan Cruijff ArenA.

Define: Analyze data, uncover themes, and synthesize findings using the Value mapping method leading to problem reframing.

Develop: Conduct co-creation sessions with key LAOs and experts. Analyze results from creative sessions using the value proposition canvas and the means-end chain framework. Validation Session to present value propositions to the actors involved and gather feedback. Refine and iterate value propositions.

Deliver: Based on value propositions detail a strategic roadmap for the AMS Institute to engage with LAOs. Complete the graduation report and prepare the final presentation.

IDE TU Delft - E&SA Department /// Graduation project brief & study overview /// 2018-01 v30   Page 6 of 7

Initials & Name _____ Student number _____

Title of Project _____

6

MOTIVATION AND PERSONAL AMBITIONS

Explain why you set up this project, what competences you want to prove and learn. For example: acquired competences from your MSc programme, the elective semester, extra-curricular activities (etc.) and point out the competences you have yet developed. Optionally, describe which personal learning ambitions you explicitly want to address in this project, on top of the learning objectives of the Graduation Project, such as: in depth knowledge a on specific subject, broadening your competences or experimenting with a specific tool and/or methodology, ... Stick to no more than five ambitions.

Over the course of this project, I want to broaden my creative facilitation skills and acquire a practical understanding of co-creation methodologies in a multi-stakeholder environment. The project addresses internal politics and stakeholder management; thus, I want to challenge my leadership and project management skills as the project owner.

As a learning ambition, I would like to explore the real impact of design research in a multi-stakeholder project. Understand how to design for values, balance the interests of different actors and unravel how values influence, link, and conflict with each other. I want to bring a social perspective to a proposal that makes sense from a business point of view. To help the social team of the LIFE platform consortium to address large companies and generate value for all involved. In addition, I aim to gain in-depth knowledge of the energy transition and current energy exchange systems.

One of my objectives for this master's was to understand how design can become a bridge between industry/companies, the public sector, knowledge institutes, and citizens. The LIFE platform is part of the Municipality of Amsterdam's efforts towards a gas-free 2040. My client is a Knowledge Institute creating value propositions to engage companies. However, the propositions have to fit into a multi-stakeholder ecosystem with the goal of including and benefiting communities. Within this context, taking a systemic perspective, I am curious to explore whether top-down innovation can maintain a social perspective and what role I envision myself playing within these dynamics as an SPD in my future career.

FINAL COMMENTS

In case your project brief needs final comments, please add any information you think is relevant.

Initials & Name _____   Student number _____

Title of Project _____

B
Field research activity log

Activity log of research activities conducted.

Date	Name	Activity	Location (or online)	Activity type	Role
2023/03/07	A	Interview LIFE Stakeholder Engagement Coordinator	Huis van de Toekomst	Interview	Interviewer
2023/03/14	B	Advisory Board Session	Huis van de Toekomst	Meeting	Field Observation
2023/03/21	C	Interview Johan Cruijff ArenA, LIFE project manager	Huis van de Toekomst	Interview	Interviewer
2023/03/28	D	Session-Battery Use Case	Huis van de Toekomst	Co-creation Session	Field Observation
2023/03/21	E	Interview Project Manager Alliander	Huis van de Toekomst	Interview	Interviewer
2023/03/30	F	EnergieLab Zuidoost Seminar	De Groene Hub	Event, Co-creation session	Support facilitator, Field Observation
2023/04/04	G	Interview Gemeente Amsterdam, LIFE Project Management Team	Huis van de Toekomst	Interview	Interviewer
2023/04/06	H	Interview Research Coordinator Spectraal	Online	Interview	Interviewer
2023/04/11	I	Communication Workshop	Huis van de Toekomst	Co-creation Session	Facilitator
2023/04/11	J	Interview University of Utretch, Academic Researcher	Huis van de Toekomst	Interview	Interviewer
2023/04/13	K	Interview TU Delft, IDE Design Anthropology Researcher	TU Delft	Interview	Interviewer
2023/04/18	L	Workshop Value Opportunities	Huis van de Toekomst	Co-creation Session	Interviewer
2023/04/20	M	Interview Gemeente Rotterdam, Advisor	Online	Interview	Note-taker
2023/05/16	N	LIFE partner Day	AMS Institute	Co-creation Session	Participant
2023/05/23	O	Project coordination meeting	Huis van de Toekomst	Meeting	Field Observation
2023/07/05	P	Value ecosystem tool Validation	Huis van de Toekomst	Co-creation Session	Facilitator

Activity D
Battery Use Case
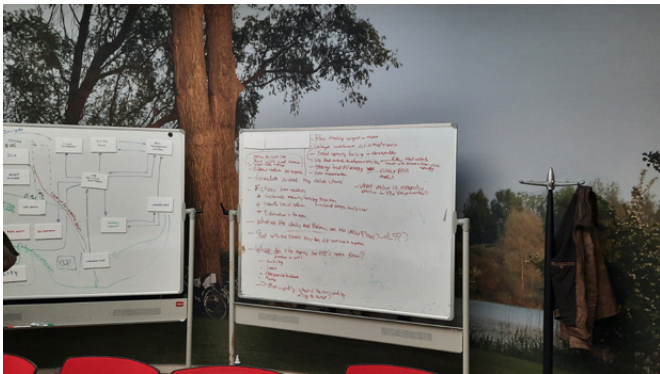
Activity F
EnergieLab Zuidoost Seminar

Activity N
LIFE partner day
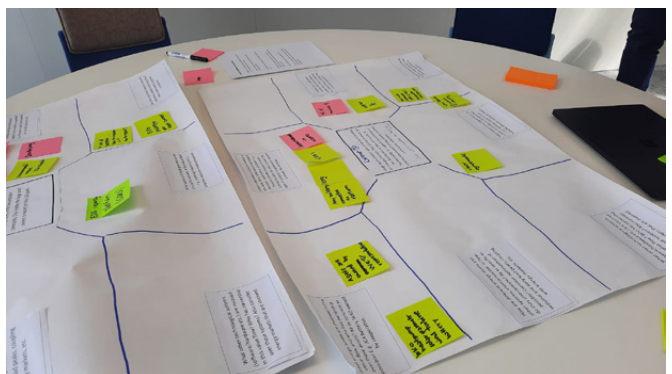
C
Value modeling tool analysis

Following is a first approach to the analysis of value modeling tools, categorizing them as either value-based or value-cocreation-based.

Value as unidirectional

PSS centric

The Value Proposition Canvas

Represents the benefits delivered to stakeholders for which payment or another value exchange takes place

customer perspective | trying to achieve (jobs) obstacles (Harry) or customer has an achieving those jobs (pains), and how you offer help them to alleviate or solve those

project centric

process of identifying, diagramming, and **prioritizing** stakeholders by analyzing their **influence and interest** in a project

Interactions

Firm centric

Simplified representations of elements and interaction that an organizational unit chooses in order to create, deliver, capture and exchange value(Bocken, 2015)

narrow view of value proposition focus on **customer** (Bocken)

Firm centric

Figure 2. The City Model Canvas (CMC).

Considering value created and delivered from a public perspective. The model does not follow a profit perspective, but is mission-driven (government and non-profit organization) (Timeus, K., et al., 2020)

Value co-creation

Value network
Value ecosystem

Firm centric

Fig. 1. The example of the tool for LED lights

value mapping tool is developed to help firms create value propositions better suited for sustainability

how businesses might create balanced social, environmental and economic value

Major stakeholder segments (environment, society, customer, network) | |

| holistic perspective (bocken) | value capture value missed value opportunities

Impact in value network

value in use centric

Fig. 1. The Service Dominant Ecosystem of Spotify.

Integrates value propositions from different actors, visualize in network level

SD perception of value | value cocreation ecosystem goal defined as value in use | help frims to transition to service focus **SD** | firms to understand **where the value is**

identify network effects

ecosystem centric

Fig. 3. The Ecosystem Pie Model tool.

strategy tool to map analyze and design innovation ecosystems

analysis and decision making on ecosystem strategy | ecosystem modelling | ecosystem value proposition : customer oriented solution | how the supply agents offerings corresponing to assumed need or desire of end user

Fig. 5. Completed EPM for public transportation application for the technology under consideration.

who is the goal framed from? | economic societal value

D
Interview Guide

Interview guide for semi-structured interviews with LIFE project partners.

Interview Guide

Introduction

1 How did you arrive to the LIFE project?

Taxonomy of LIFE

Purpose

2 How would you describe what LIFE platform does?

3 How would you describe what LIFE social platform aims to do?

JOBS   4 What is LIFE platform biggest offering?

PURP   5 What makes LIFE proposal unique? different from the rest?

PURP   6 What is the reason for existence of LIFE platform? Why should we care?

PURP   7 What makes the LIFE platform different and innovative?

8 What is most important for LIFE shareholders?

Taxonomy Business Model

9 What is the good LIFE platform produces?

10 What is the content of the service LIFE is offering?

Value Mapping Tool

11 Stakeholder group ()

12 What is the current role of Alliander within the LIFE project (Package 4 Next-Generation Grid)

13 What role will Alliander play once LIFE platform is **launched**?

Value Created

14 Why will the customer buy the services offered?

GAIN   15 Besides financial benefits, what are other opportunities that being part of LIFE will bring to *partners*?

16 What possible benefits tangible and intangible are created?

Value Destroyed

17 What are the negative outcomes of the business for any stakeholder?

18 What are the impacts generated by each of the key supppliers/ partners/ distributors/ consumers?

Value Missed

19 How might LIFE be missing an opportunity to capture value?

20 Are assets under-utilised?

21 What are major challenges that LIFE faces now?

New value opportunities

22 How has the new EU regulations on environmental and social practices impact LIFE?

23 What new positive value might the network create for its stakeholders through introducing new capabilities, activities, relationships?

24 Imagine we have asset owners on board

25 Imagine we have Vve's on board

What do we already know?

CON   26 What are relevants trends or references in the market that might drive 'potential aset owners' that I should consider?

CON   27 Who would you suggest having a conversation with?

CON   28 Who is a competitor of the LIFE platform?

D
Interview Guide

Interview guide for semi-structure interview with JCA, LIFE project partner.

Intake Interview Guide

Introduction

1 How did you arrive to the LIFE project?

2 Why did JCA joined LIFE project?

Purpose

JOBS 3 What does JCA prioritizes as a business?

JOBS 4 What is the ultimate goal for JCA to provide to its customers?

JOBS 5 What makes JCA unique? different from the rest?

JOBS 6 What is most important for JCA shareholders?

Energy Assets

7 What is an energy asset? How long is the life of an asset?

Benefits for Battery

GAIN 8 How did JCA made the decision to own a battery? (context/ stakeholders) (investment that pays off)

GAIN 9 Why is it attractive to own a battery (generate/ transmit/ distribute)? What are the costs/ benefits?

GAIN 10 How does the battery allow JCA to use their energy more intelligently?

Benefits

GAIN 11 How has owning a battery change JCA as a company?

12 What is the role of **Amsterdam Energy ArenA**? How does JCA manages this businesswise?

GAIN 13 How has owning a battery change how JCA is *perceived by your customers*?

Values (Why is it important to you?)

14 Why would you say social responsibility is an important core value?

CON 15 Besides money, what other opportunities will being part of LIFE bring to JCA?

CON 16 What are the ecological or environmental actions JCA is taking to preserve the planet?

PAIN 17 How has the new EU regulations on environmental and social practices impact JCA?

PAIN 18 What are the procedures JCA has taken to comply with the regulations?

PAIN 19 What are major challenges that JCA faces now?

Other Stakeholders

GAIN 20 What would you say motivates other companies to become an asset owner?

21 As someone who has experience, What are the challenges for a company to become part of LIFE?

Supply chain

JOBS 22 **How** would the battery contribute to balance supply and demand of energy?

JOBS 23 How has owning a battery change the relationship with energy providers, DSO?

24 Which partnerships would be essential for JCA battery to deliver *value to others*?

25 Which role on the value chain would JCA battery focuses on in LIFE?

Energy Markets

D
Interview Guide

26 What are the economic value interests in energy markets, from the grip operator perspective?

27 What is the Primary Control Reserve market? Revenue will largely be generated by selling the energy storage capacity on the

NEXT STEPS

CON   28 What are relevants trends or references in the market that might drive 'potential aset owners' that I should consider?

CON   29 Who would you suggest having a conversation with?

CON   30 Who is a competitor of the LIFE platform?

About other LAO

31 ING is not a good neighboor, net congestion for a bank might not be an issue'

32 Have you had a conversation with 'Ziggo Dome'?

E
Interview note-taking

Value mapping tool adapted for interview note-taking
(Bocken, N. et al, 2013).
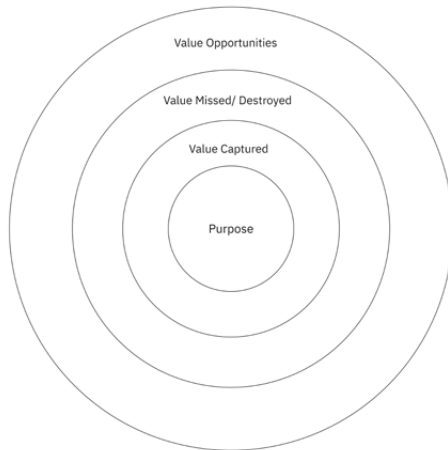
Interviewer notes during semi-structured interviews.
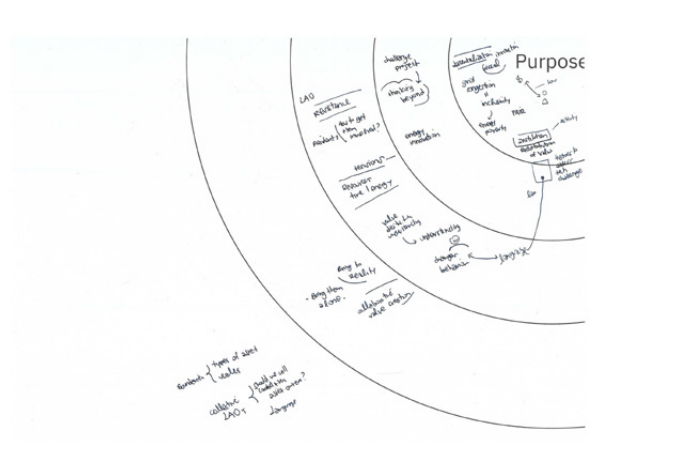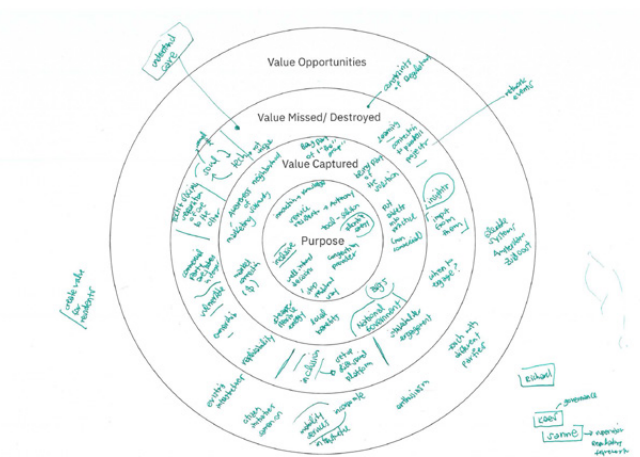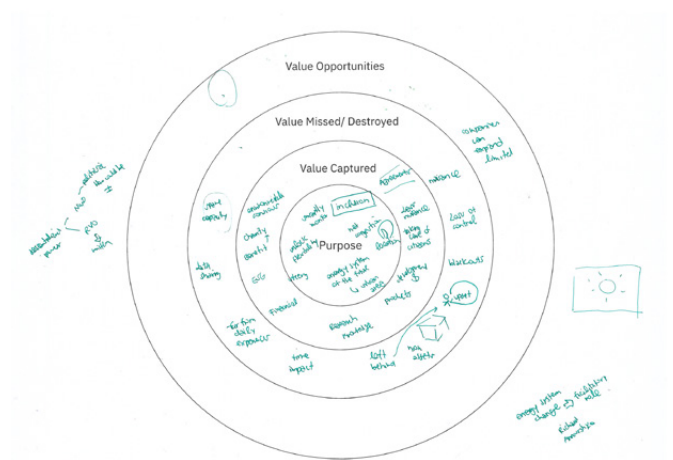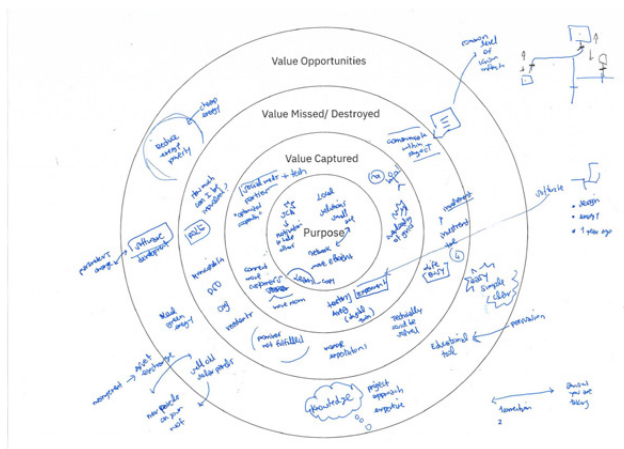
F
Thematic Analysis & Clustering

Thematic analysis conducted using Atlas.ti, for semi-structure interviews with LIFE project partners.
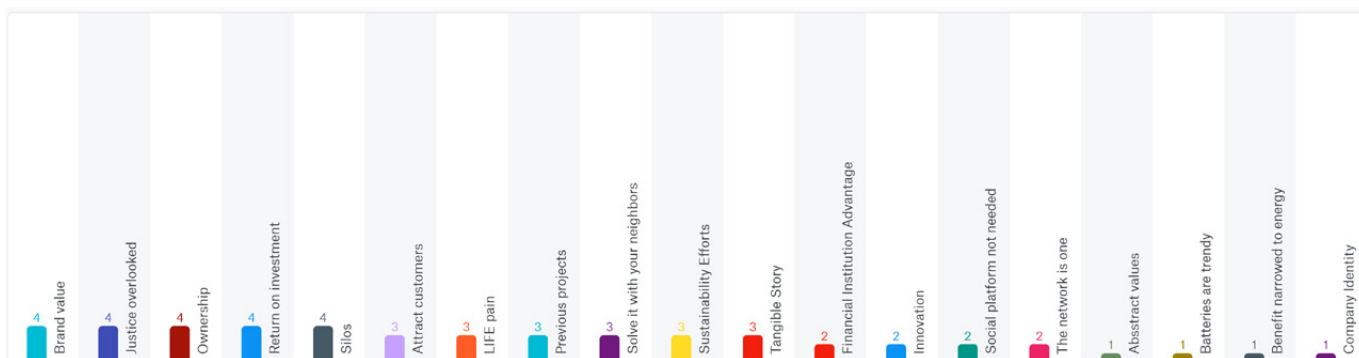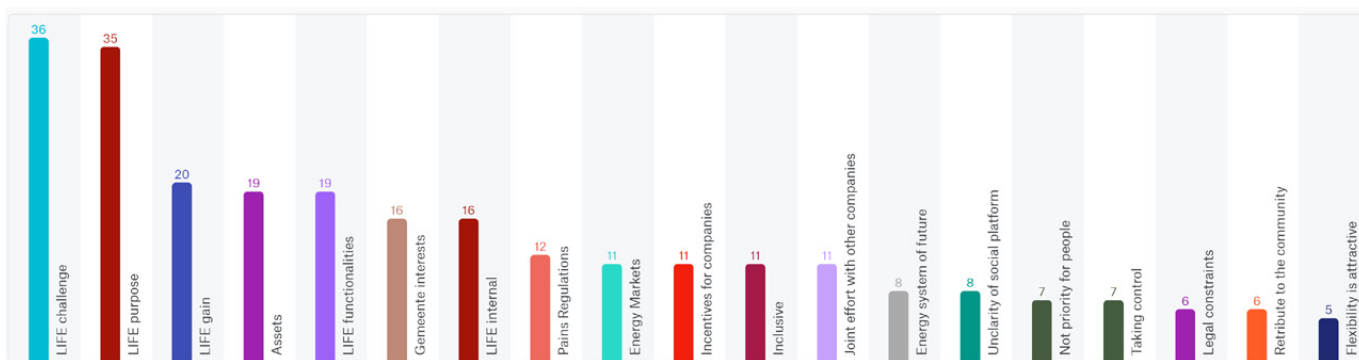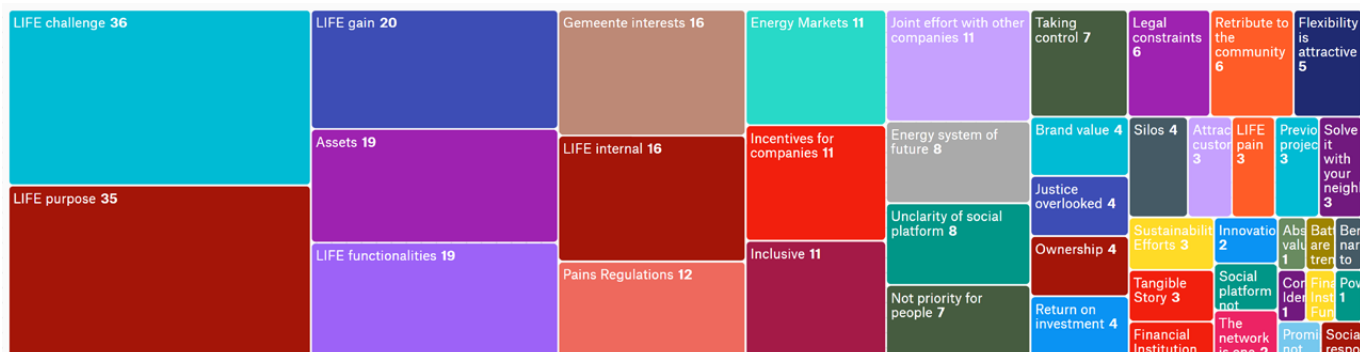
F
Thematic Analysis & Clustering

After conducting a thematic analysis, statement cards and generative clustering were used to identify the most prominent themes and patterns.
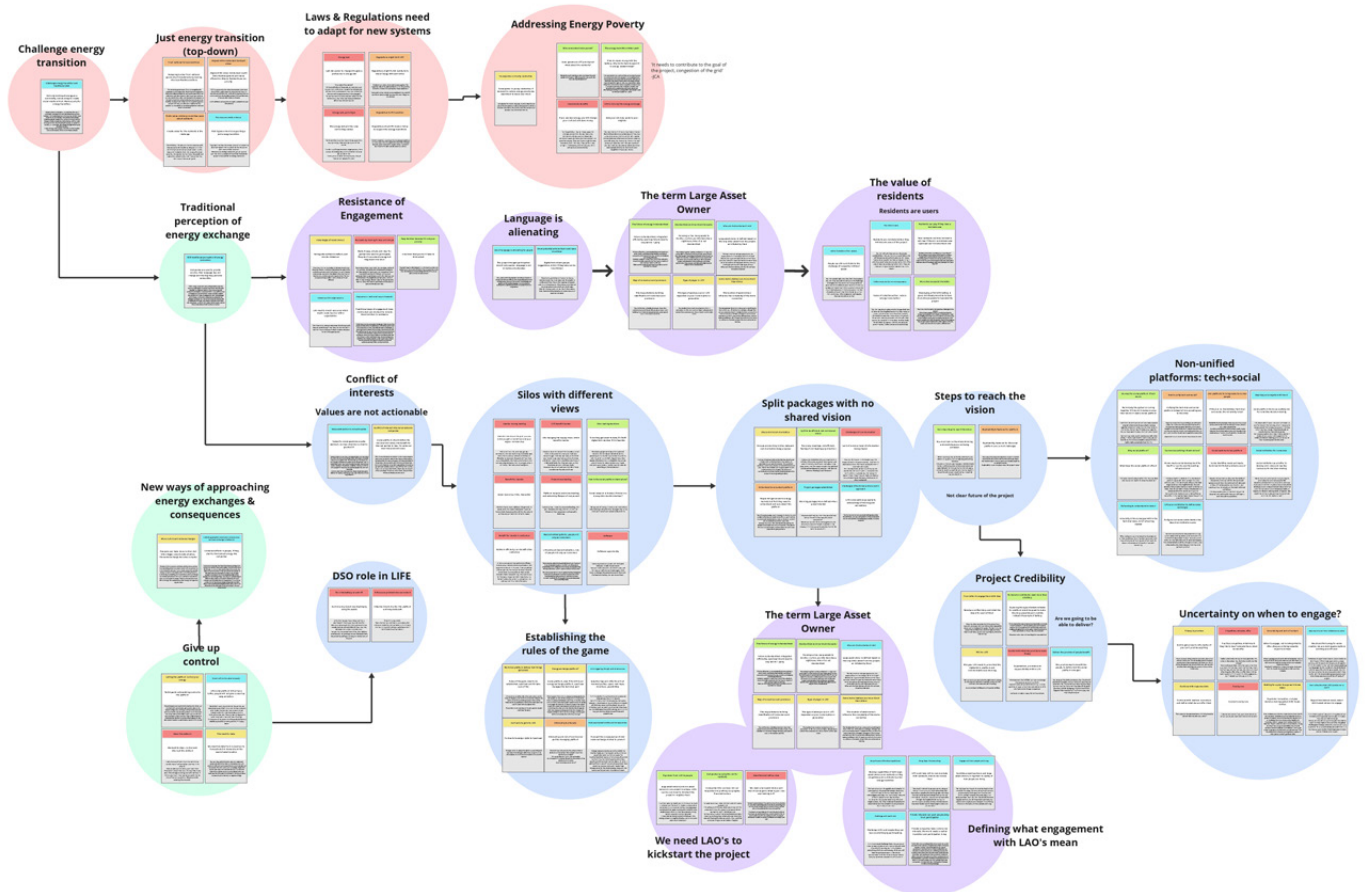
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Thematic Analysis & Clustering
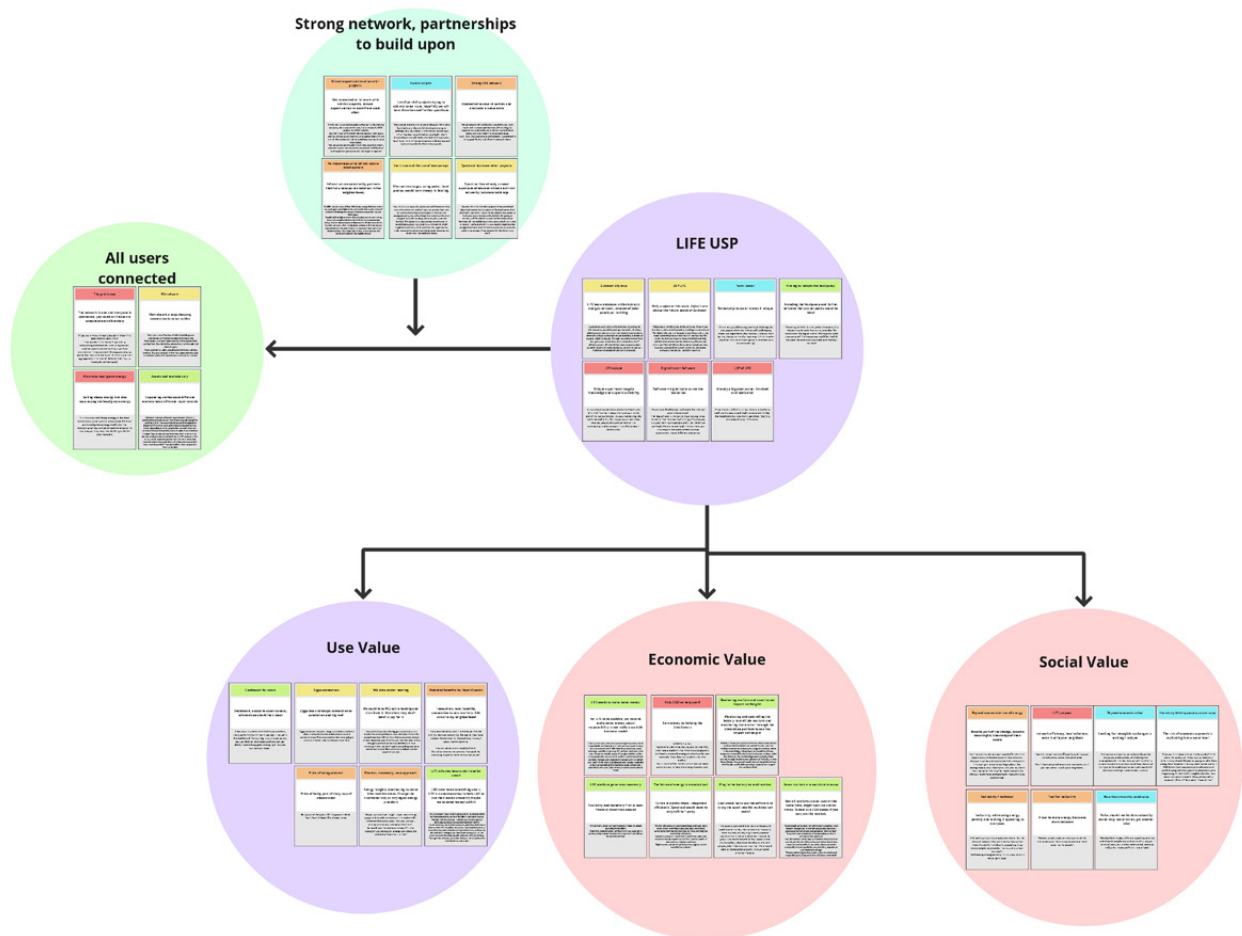
F
Thematic Analysis & Clustering

To prepare for the second co-creation session related to value opportunities. Additional clustering was performed in relation to the LIFE project's purpose, the value missed, and value opportunities depicted on "value opportunity cards."

Purpose

What is the primary reason(s) for the existence of your business and its network of stakeholders including the value chain?

Why should any of your stakeholders, particularly the customer, care about the existence or continuation of the business network?

inclusive local energy system, more **smartly monitor and control the growth or this, or assets**

smart monitoring and control

Unique experiment and we will learn a lot of it. **Scalability** it's interesting to also to copy it to other areas in Netherlands.

living lab experiment to gain **knowledge** and judge **scalability**

flexible energy services to mitigate less congestion

flexible energy services

flexibility capacity. And integrate that into the grid, **unlock flexibility**, mitigate less congestion

energy system of the future. And especially for the urban sector, urban area integrated, decentralized, digitalized local energy system

energy system of the **future**

Innovation, future energy, knowledge

generates most monetary value for assets providing its flexibility

- Energy Security
- Price Stability
- Affordable accesible energy for everyone
- contribution to a sustainable city affordable, accesible, reliable energy

efficiency use of tech, tool for decision making

should **work together** at same time. It's also the opportunity to find out whether they can communicate. And that they can **create value by enhancing each other.**

working together to **enhance** each other

opportunity to become part of this solution

develop **a tool**, a solution that can **make the energy decision more inclusive** and give **more power to the people**.

tool that allows **making energy decisions** more inclusive

bunch of people doing something energy-related

efficient use of technologies

Insights about **energy to make better decisions** on energy use

Innovation: gain more knowledge about the energy assets that they have. And also **put them into practice for the neighborhood**, basically. So they can really have a **meaningful** instead of just commercial

Insight in your own energy usage and be able to monitor it to **make well-informed decisions about how you use your energy**, where your energy comes from? So would you like more autonomy?

To large companies or to like the **front runners in the energy transition**, residents that already have these technologies and that are more like, have all these capabilities and **means to engage with the system**

Use the network more **efficient**. And try to get the solutions within the small area. So if there are problems in our network, try if you can **solve it with your neighbors.**

efficient use of the network

Use energy as **local** as possible

energy system in which you trying to monitor and control all these demand supply technologies try to balance. **On a local scale**

how can make a business case out of that so we can entice people to join?

collective, local effort, support

Local energy

solve it with your **neighbors**

energy assets and non energy assets in project

large asset owners and non asset owners are involved in one single project. LAO **can be convinced** to kickstart this energy project in neighborhoods, where the smaller asset owners could join

supporting each other

Inclusive, appealing to as many people as possible

Companies with a lot of money can bare more risk, I hope that by doing that others who can't bare the risk and financial burden can profit. That would be a unique thing is we can make it happen

Value Missed

What are the negative outcomes of the business for any of your stakeholders?

This phase aims at eliminating the value destroyed by the business by identifying and solving conflicts between stakeholders, utilising the value currently missed for the business, and searching for **opportunities to create entirely new value**. This step is usually followed by a 15 min coffee break, which also allows for some buffer for groups lagging behind.
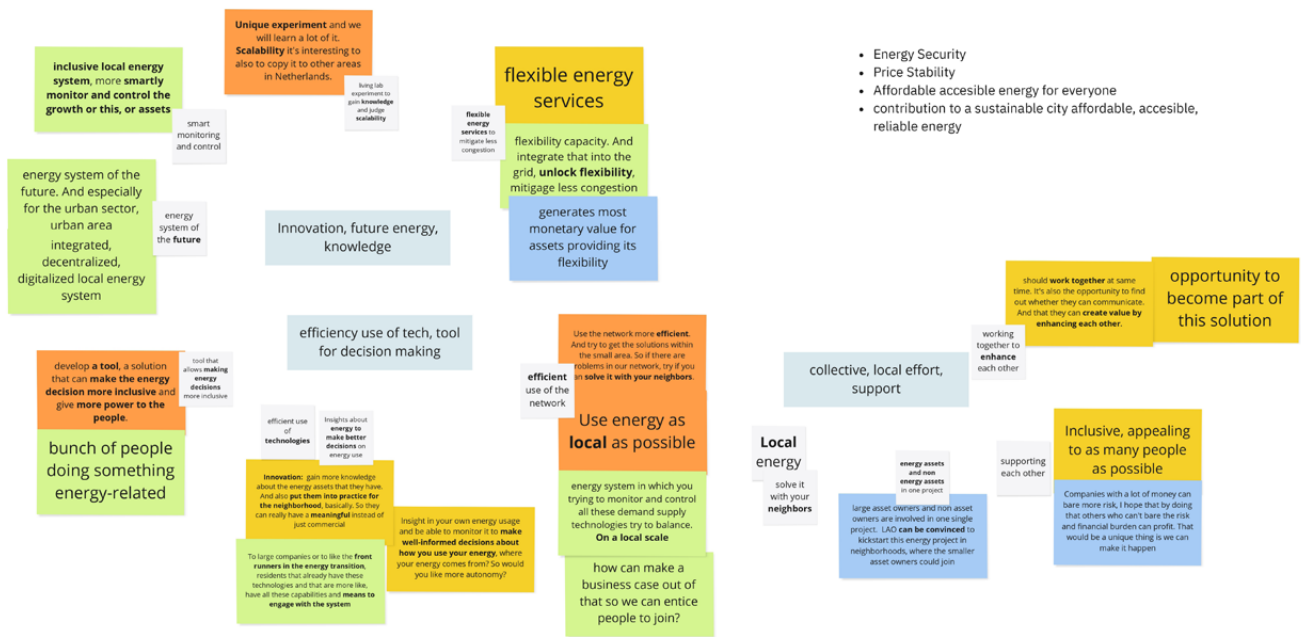
Delivering control

loss of control over the technologies. But, it all depends on like the **agreements** you make, right? Of how and when in what ways they can control the assets, should that maybe one.

non integrated platform

Establish the line between them, because if we cannot do that, then we just have the technical system, and then the LIFE social platform that is where, really create value for the normal person, the normal people in the neighborhood.

long-lasting system in which the most disadvantage **just cannot really engage with or cannot benefit in the same amount** as people who are more advantaged. You're just effectively creating a system that widens the gap, like for years to come.

Resident acceptance is not needed

Their acceptance of this system doesn't really matter in a way because for the techno-economic success of this project. You don't have to engage with them.

Including non-asset owners in the game

Spectral cannot get a business case with residents right now, perhaps in 10 years they can

disadvantage energy technologies and people willing to participate

they don't have energy technologies, so there's not much to monitor, to control.

So there isn't really any risk other than if we're designing now this local energy system of the future in a way without engaging with them - Like they're left behind. **Now, we're designing this system that's really great for people who have assets**

Benefits for residents

energy price probably will be cheaper or whatever. I just can't imagine that it's **more difficult for them to engage** with energy system in ways that is more easy from words.

why does it need to be in **any energy-related way**, bereopolder is quite an active area, and **organizations doing things that can do use the money** to organize a barbecue once a year, plant some trees, buy an electric car, build a new playground that could be done with money gone else. Why the need to bring it to energy bills? raise ponds?

Missed insights and knowledge

Engaging and talking to asset owners and people

These energy technologies and people willing to participate also in this in this research.

project in which you engage with people from the more disadvantaged neighborhoods. You have to **get their perspective and their ideas on this on this development of local energy systems** or else you risk that they have to like, that they become part of this new energy system.

Privacy and competitive

competitive risk of sharing data with each other

Raising awareness & test story

My family isn't interested in energy at all. They use it. It must work. Yes. And perhaps some more details, but then it's finished. So if you can **persuade them to participate** your family, then you can participate in the neighborhood here also

Make it easy for the parties who want to come, who want to participate in life make it easy and simple, but clear.

Time consuming, hassle

Like a burden , that is taking too much of your, too much investment of time. Of, yeah. . Yeah. Too much hassle.

Make it easy for the parties who want to come, who want to participate in life make it easy and simple, but clear.

Uncertainty, not knowing if delivering is possible

would say that promises can't be fulfilled

We haven't developed this yet. It is in the process it's in the process. We don't if it's if it is possible to do it in the way that we want it. There's only one way to find out.

Current energy regulations

The regulation should be changed because yeah, it should fit modern times.

That means that we that some parts of our system as we designed it we couldn't put that in practice right now because, **Things are not allowed.** Yeah. So right now, life, because of these regulations, life is not ready to demonstrate yet.
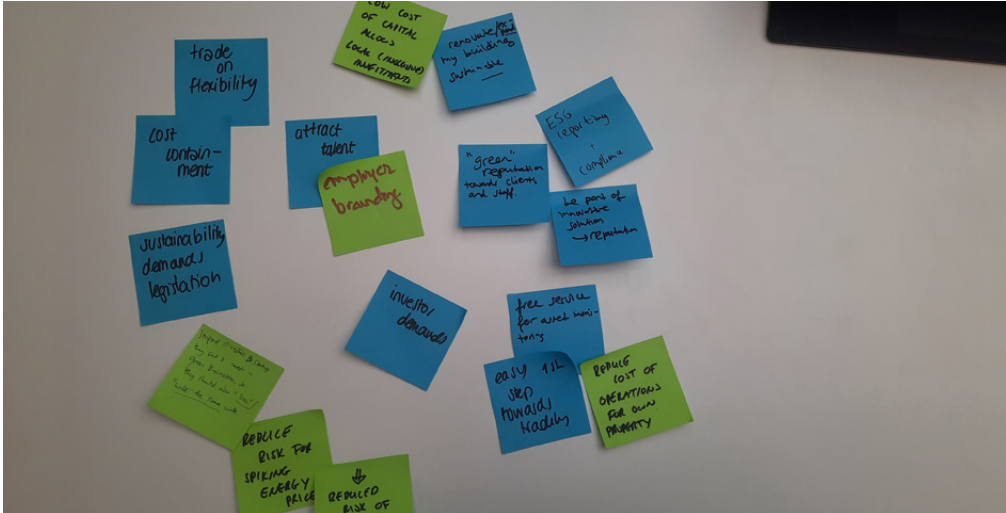
G
Co-creation 1 Session — Set-up

Goal: Idea generation of potential value opportunities for large asset owners in the LIFE platform project. Making the first attempt to stop calling them large asset owners and classify them in three target groups.
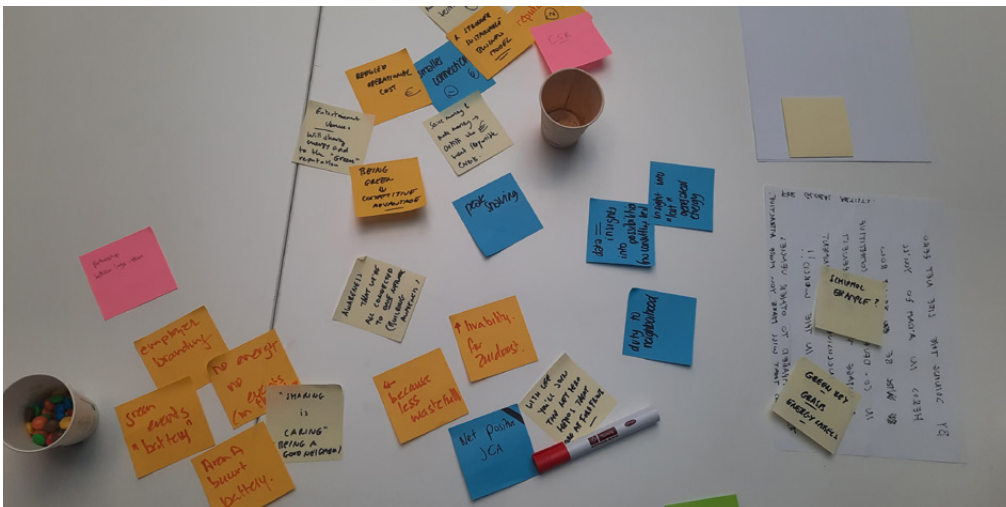
Steps: Activities during the workshop	Split into teams	Purge	Brainwriting	Brainwriting iteration	Dot voting	Prepare Elevator pitch	Presentation per group
Time:	5'	5'	10'	10'	10'	10'	15'
Goals: What is the goal of each step	Distribute fact slides per team	Initial Brainstorm to get started, most obvious ideas come out	Individually in silence generate as many ideas as possible	Take 3 ideas and generate more ideas from them	Vote for your favorite ideas	Select your favorite or favorites and prepare an elevator pitch to present in 3 minutes to the group	Presentation and discussion
What we need? Templates, materials	Slides or print facts	-Post its -Markers	Template?	-Post its -Markers	Red stickers	A1 paper	

Energy levels

					Standing	Standing	Standing
	Sitting	Sitting	Sitting	Sitting			

H
Co-creation 1 Session — Activities

Collaborative Brainwriting activities from the session.
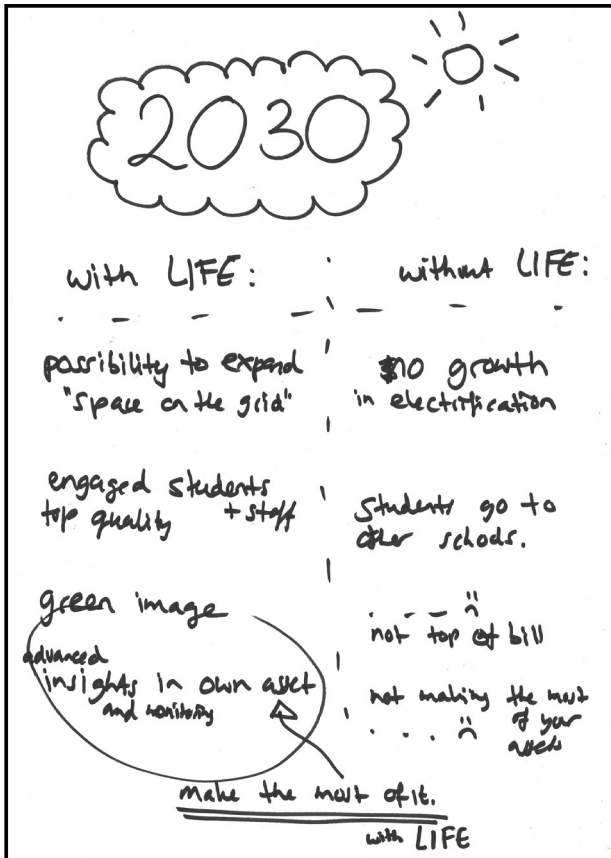

Financial Institutions
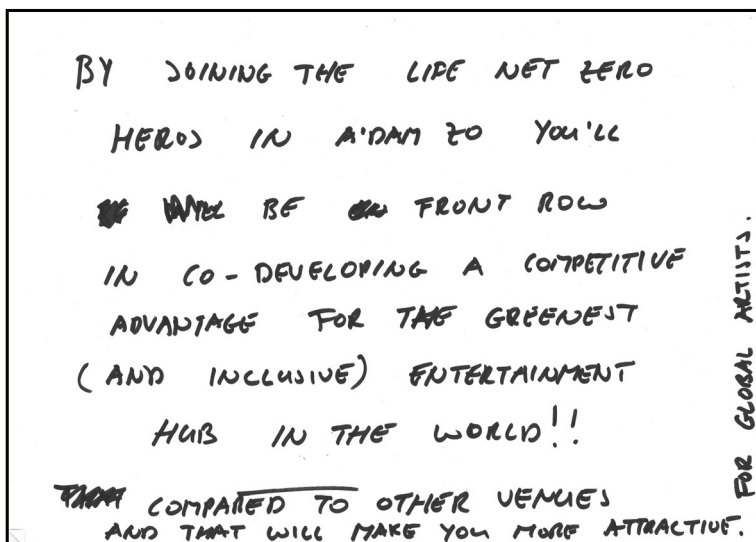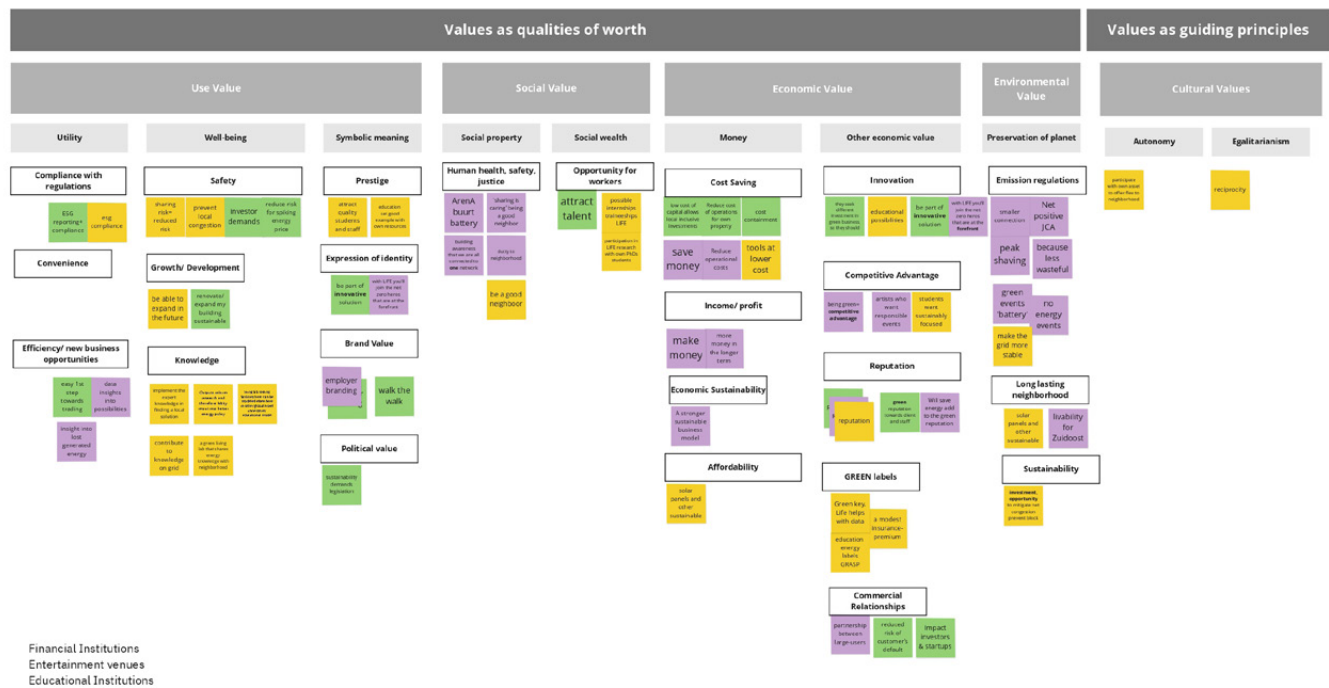

Entertainment Venues

Educational Institutions

H
Co-creation 1 Session — Activities

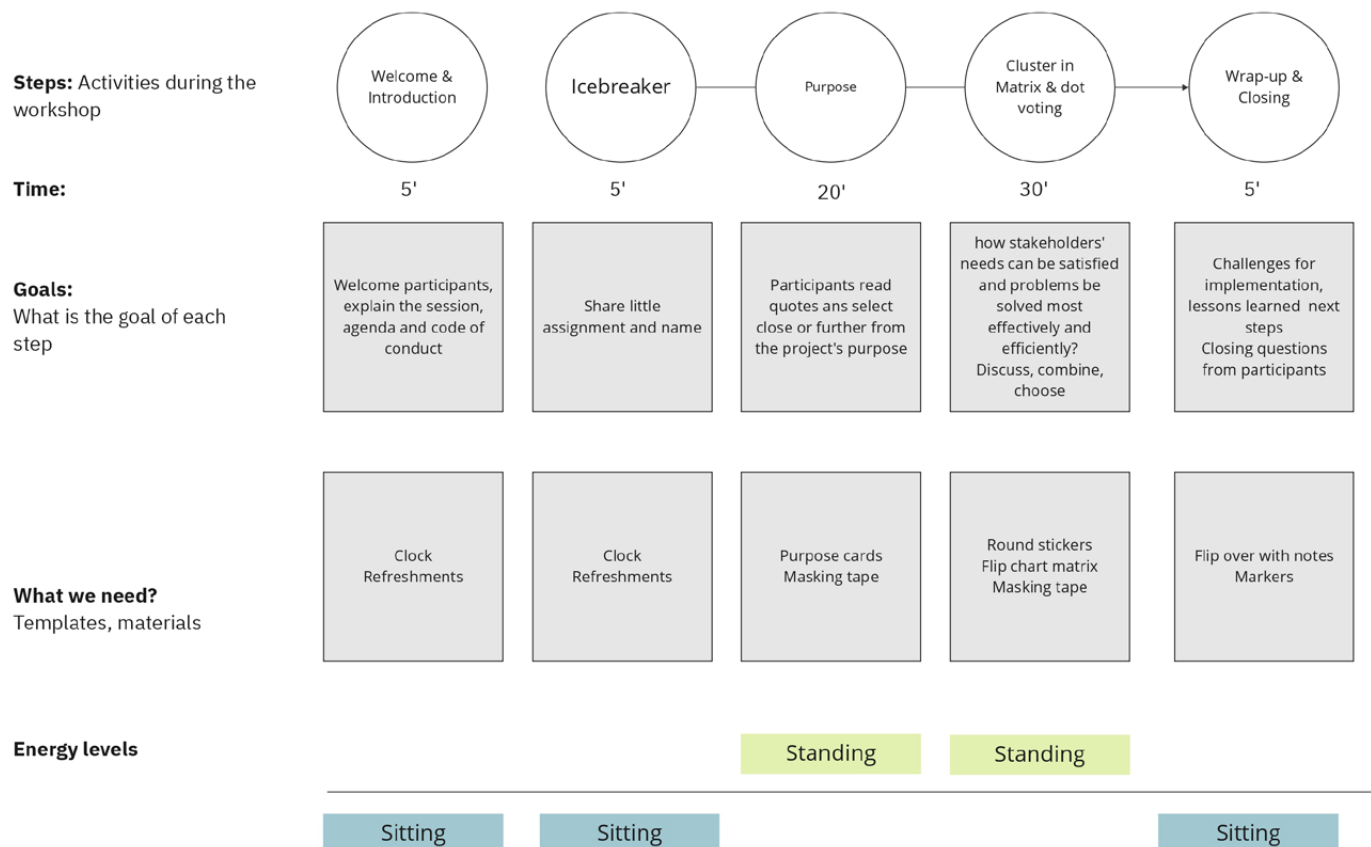Elevator Pitch activities from the session.

Concept 01- Educational Institutions

Concept 02- Entertainment Venues

H
Co-creation 1 Session — Activities

Collaborative Brainwriting activities from the session.

Financial Institutions

- low cost of capital allows local inclusive investments
- renovate/expand my building sustainable
- Trade on flexibility
- cost containment
- ESG reporting+ compliance
- attract talent
- Employer branding
- **green** reputation towards client and staff
- be part of innovative solution
- Reputation
- free service for asset monitoring
- sustainability demands legislation
- easy 1st step towards trading
- Reduce cost of operations for own property
- investor demands
- Impact investors & startups
- reduce risk for spiking energy price
- they seek different investment in green business, so they should
- walk the walk
- reduced risk of customer's default

Entertainment Venues

- risk of omer's fault
- possible internships traineeships LIFE
- students want sustainably focused
- attract quality students and staff
- implement the exper knowledge in finding a local solution
- educational possibilities
- living lab testing facilities here can be modeled elsewhere in other global novel universities educational model
- contribute to knowledge on grid
- reciprocity
- a green living lab that shares energy knowledge with neighborhood
- participation in LIFE research with own PhDs students
- trade on flexibility and make money
- containment
- sharing risk= reduced risk
- esg compliance
- reputation
- tools at lower cost
- make the grid more stable
- participate with own asset to offer flex to neighborhood
- education set good example with own resources
- be a good neighbor
- prevent local congestion
- investment, opportunity to mitigate net congestion prevent block
- solar panels and other sustainable
- be able to expand in the future
- a modest insurance-premium
- education energy labels GRASP
- Outputs inform research and therefore lobby input into better energy policy
- Green key, Life helps with data
- is this also a pain for entertainment

Educational Institutions

- more money in the longer term
- Reputation
- A stronger sustainable business model
- CSR
- smaller connection
- Reduce operational costs
- save money
- artists who want responsible events
- make money
- Will save energy add to the green reputation
- being green= competitive advantage
- peak shaving
- insight into lost generated energy
- data insights into possibilities
- dutty to neighborhood
- partnership between large-users
- employer branding
- no energy events
- building awareness that we are all connected to **one** network
- livability for Zuidoost
- with LIFE you'll join the net zero heros that are at the forefront
- green events 'battery'
- 'sharing is caring' being a good neighbor
- ArenA buurt battery
- because less wasteful
- Net positive JCA

I
Co-creation 1 session — Analysis/ Clustering

Using Bos-de Vos, M. (2020), Framework for designing for divergent values, the ideas from the session were clustered.

Clustering

Values as qualities of worth								Values as guiding principles	
Use Value			Social Value		Economic Value		Environmental Value	Cultural Values	
Utility	Well-being	Symbolic meaning	Social property	Social wealth	Money	Other economic value	Preservation of planet	Autonomy	Egalitarianism

Compliance with regulations — ESG reporting/ compliance, eng. compliance

Safety — sharing risk/ reduced risk, prevent local congestion, investor demands, reduce risk for spiking energy price

Prestige — attract quality students and staff, education – or good example with own resources

Human health, safety, justice — ArenA buurt battery, sharing is caring/ being a good neighbor; training awareness that we are all connected to one network, duty to neighborhood

Opportunity for workers — attract talent, possible internships LIFE, participation in LIFE research with own PhDs students

Cost Saving — low cost of capital allows local inclusive investment (instrument), reduce cost of operations for own property, cost containment, save money, reduce operational costs, tools at lower cost

Innovation — they sum different investment in green business is the driver, educational possibilities, be part of innovative solution, with LIFE you'll join the next zero hero that are at the forefront

Emission regulations — smaller commission, Net positive JCA, peak shaving, because less wasteful

reciprocity

participate with own asset in offer flex to neighborhood

Convenience — be able to expand in the future

Growth/ Development — renovate/ expand my building sustainable

Expression of identity — be part of innovative solution, with LIFE you'll join the next zero heroes that are at the forefront

be a good neighbor

Income/ profit — make money, move money in the longer term

Competitive Advantage — being green = competitive advantage, artists who want responsible events, students want sustainably focused

green events battery, no energy events, make the grid more stable

Efficiency/ new business opportunities — easy 1st step towards trading, ideas insights into possibilities, insights into lost generated energy

Knowledge — implement the expert knowledge in finding a local solution, Finance into an area/ out of the box thinking to reserve future energy policy, to add more to cornerstone case partners (enables them know the solution and create more value), contribute to knowledge on grid, a green long lab that shares energy knowledge with neighborhood

Brand Value — employer branding, walk the walk

Economic Sustainability — A stronger sustainable business model

Reputation — reputation, green reputation towards client and staff, Will save energy add to the green reputation

Long lasting neighborhood — solar panels and other sustainable, livability for Zuidoost

Political value — sustainability demands legislation

Affordability — solar panels and other sustainable

GREEN labels — Green key, Life helps with data, a model insurance premium, education energy labels GRASP

Sustainability — investment, opportunity to mitigate net congestion prevent later

Commercial Relationships — partnership between large users, reduced risk of customer's default, Impact investors & startups

Financial Institutions
Entertainment venues
Educational Institutions

J
Co-creation 2 Session — Set-up

The goal of the session was to discuss and agree on the purpose of the LIFE project. In addition, the session aimed to assess the value opportunities for LAOs.

	Welcome & Introduction	Icebreaker	Purpose	Cluster in Matrix & dot voting	Wrap-up & Closing
Steps: Activities during the workshop					
Time:	5'	5'	20'	30'	5'
Goals: What is the goal of each step	Welcome participants, explain the session, agenda and code of conduct	Share little assignment and name	Participants read quotes ans select close or further from the project's purpose	how stakeholders' needs can be satisfied and problems be solved most effectively and efficiently? Discuss, combine, choose	Challenges for implementation, lessons learned next steps Closing questions from participants
What we need? Templates, materials	Clock Refreshments	Clock Refreshments	Purpose cards Masking tape	Round stickers Flip chart matrix Masking tape	Flip over with notes Markers
Energy levels	Sitting	Sitting	Standing	Standing	Sitting

**K
Co-creation 2 Session — Visuals**

Modified extracts from semi-structured interviews discussing the purpose of the LIFE project.

Purpose

*Work together to **create value** by enhancing each other*

***Smartly monitor** and **optimize** energy assets*

*Large companies to be **front runners** in the energy transition*

*Residents to **develop capabilities to engage** with energy systems*

*Inclusive local energy system to enable **autonomy***

*Living lab that explores the **energy system of the future** in an urban area*

*Tool to monitor and **make well-informed decisions** about how to use energy*

*Allow users to **gain knowledge about energy assets** and **put them into practice** (commercial+ meaningful) **for the** neighborhood*

*Use the energy network more **efficiently, solving with your neighbors the problems in the network***

L
Co-creation 2 session — Activities

Summary of the session's activities: the purpose canvas and the impact/feasibility matrix.
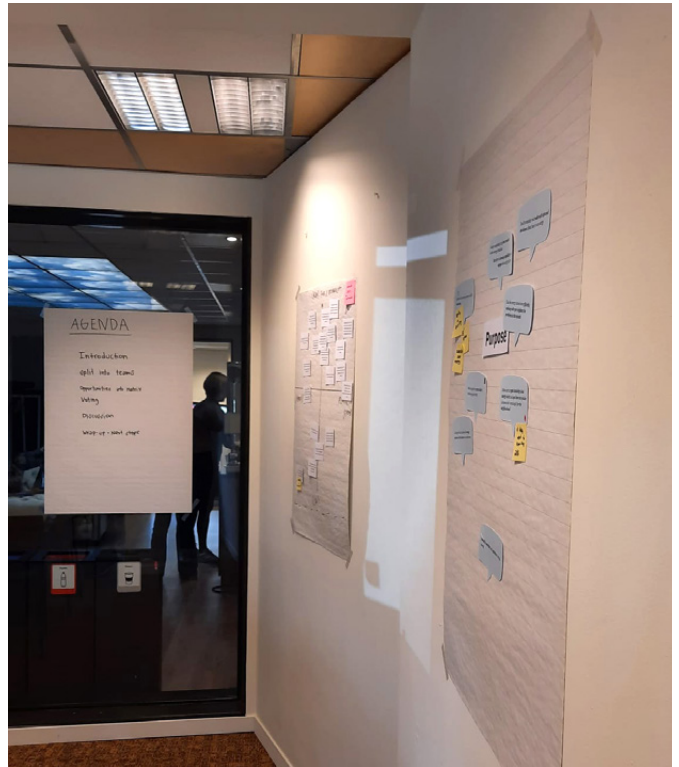
Canvas session set-up
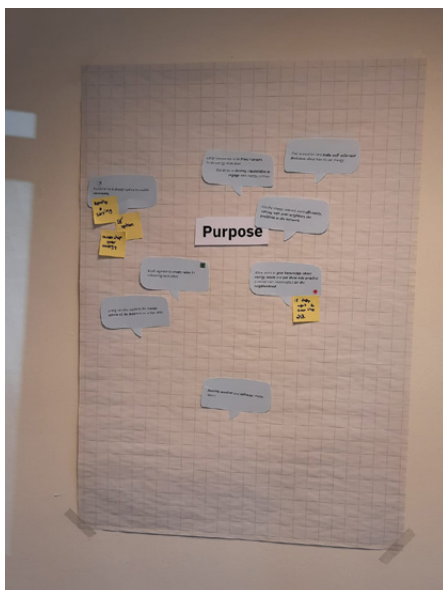
Purpose canvas
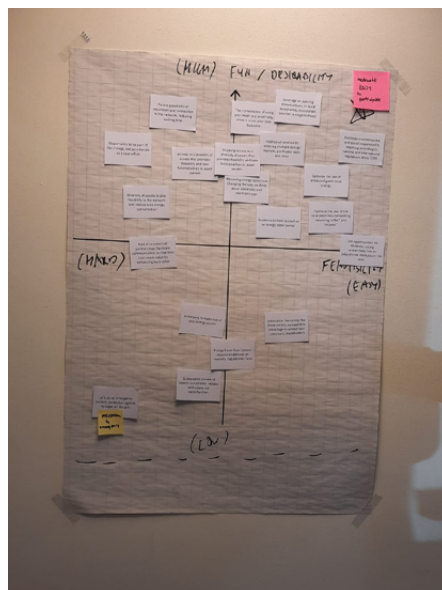
Feasibility/impact matrix Group 01
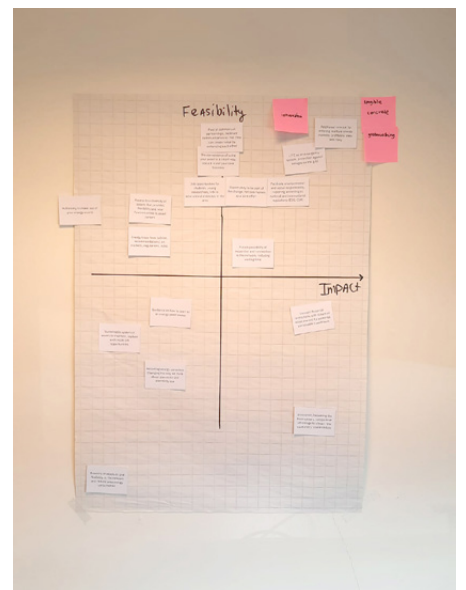
Feasibility/impact matrix Group 02

M
Co-creation 2 — Analysis/ clustering

Analysis of impact/feasibility matrix, categorizing 'value opportunity cards' based on Bos-de Vos (2022), divergent values framework.
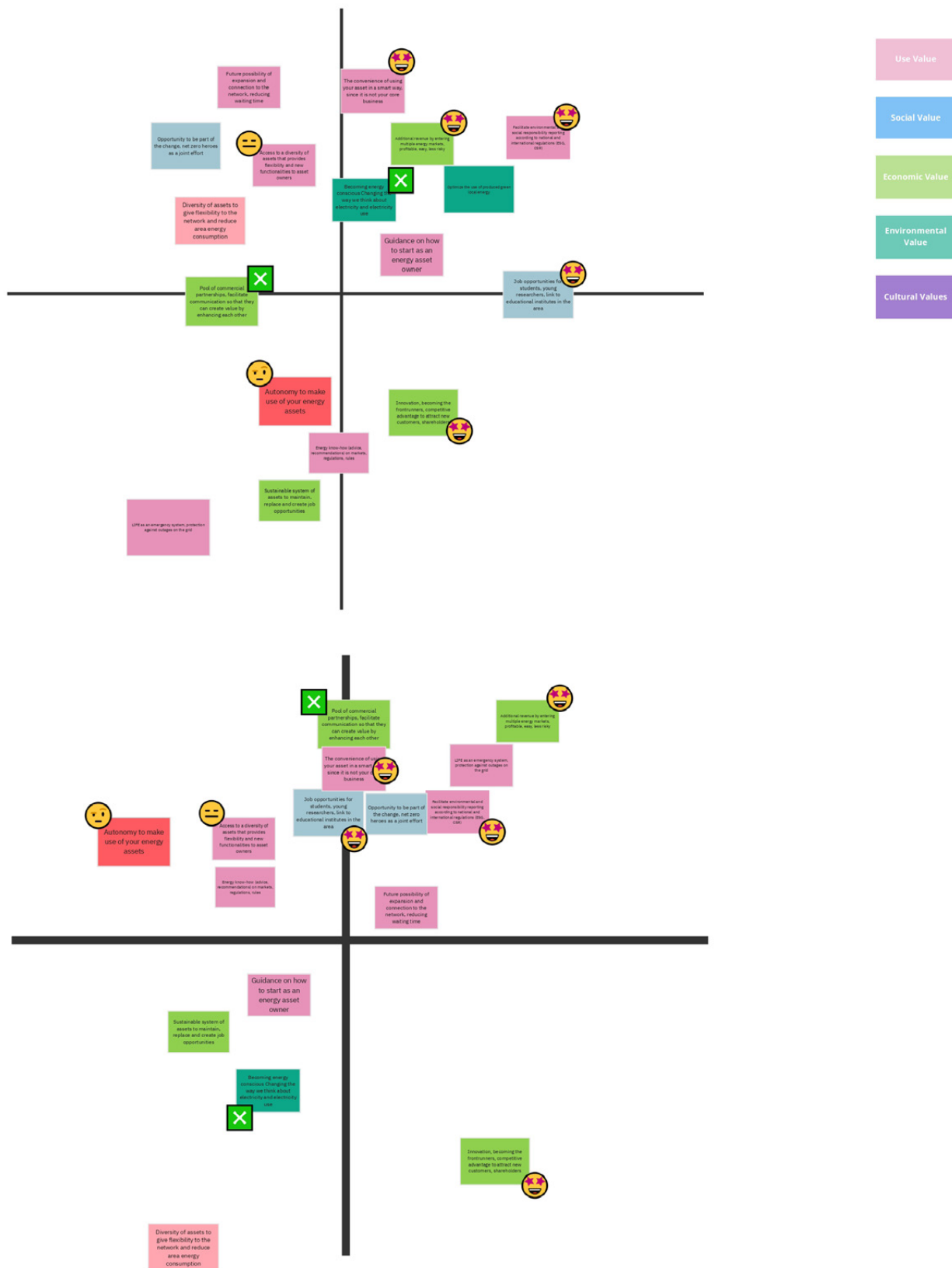
N
Tool Iteration 1

Initial tool iteration, including process and cards.

Cards
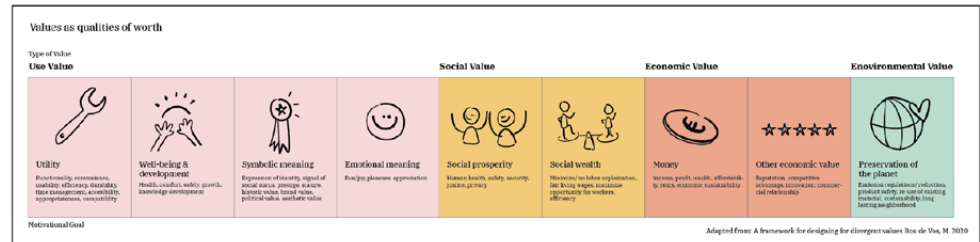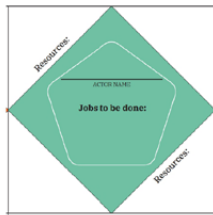
Actor card

Value compass
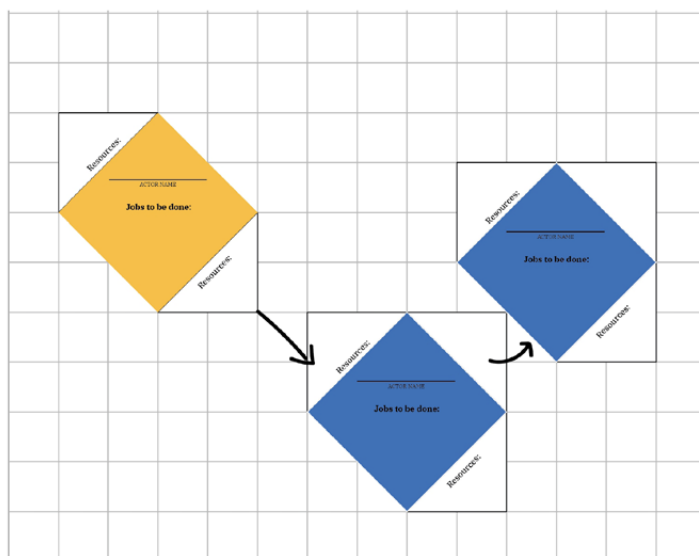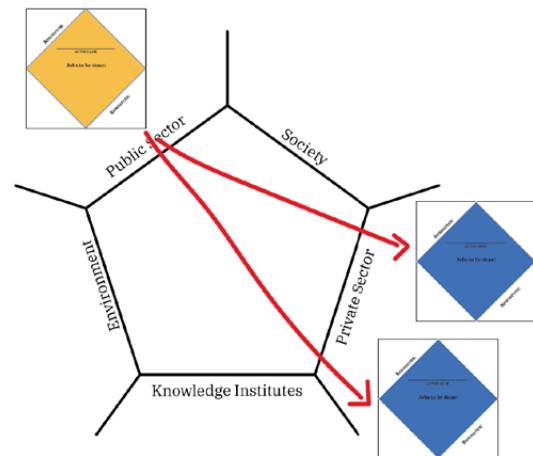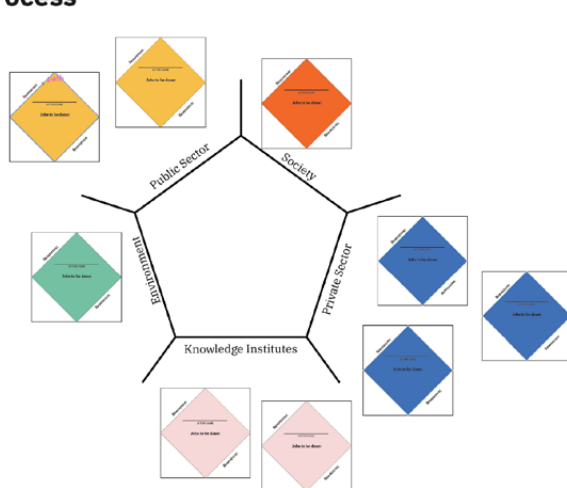
Process

O
Tool Iteration 2

The second iteration of the instrument incorporates cards and a process for card assembly with already filled values.

Cards
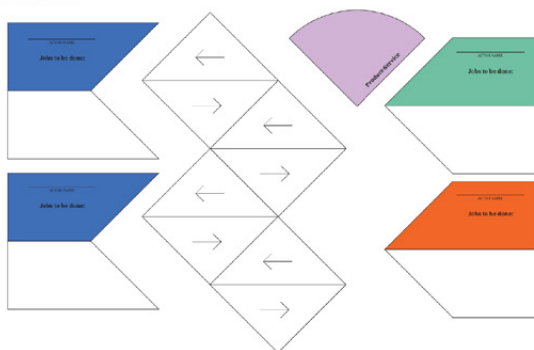
Process
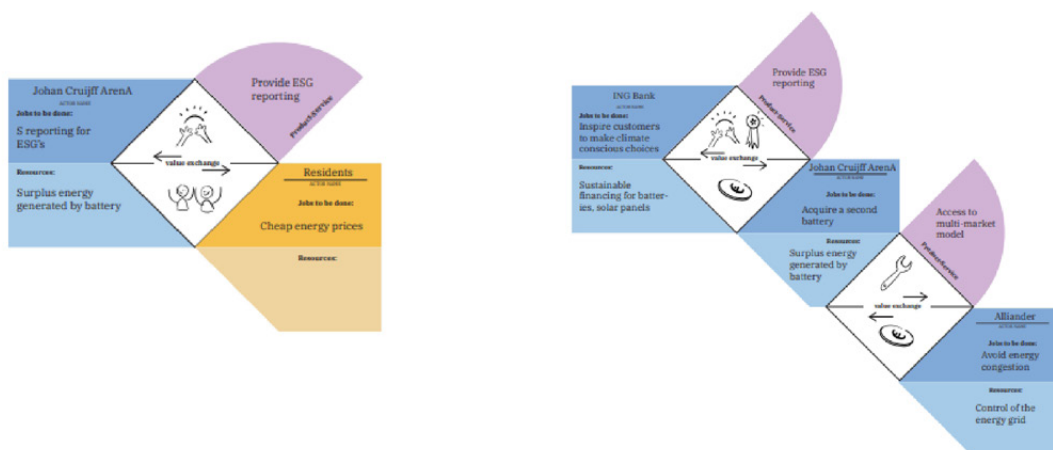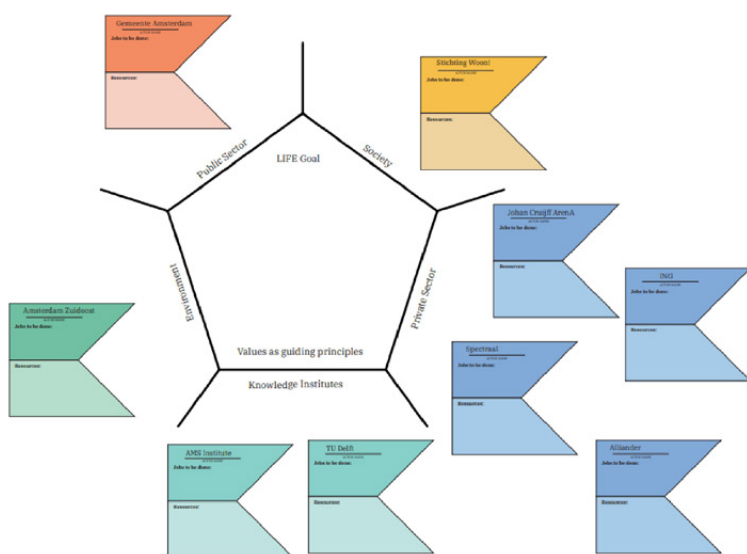
P
Tool Iteration 3

The tool's third iteration, including cards and process.

Cards
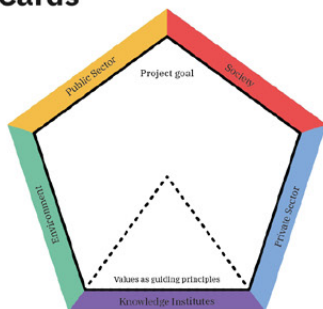
Purpose Helix
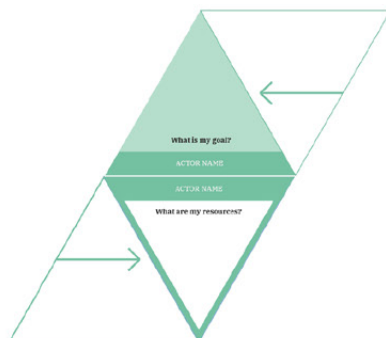
Actor cards

Wild card

Value compass

Process

Constellation simple
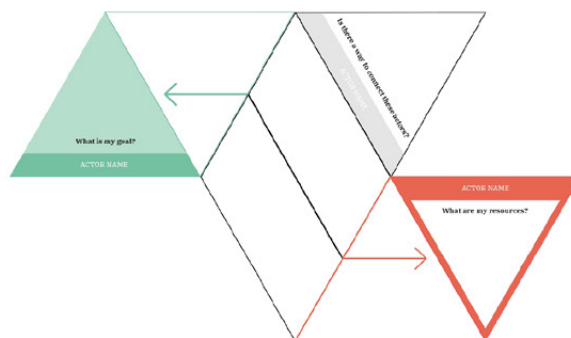
Constellation wild card

Q
Pilot session — Set-up

The tool validation was piloted with design students in order to assess the session's materials, structure, and evaluation.

Location: Huis van de Toekomst **Goal:** Test and evaluate value ecosystem tool
Time: 2hrs

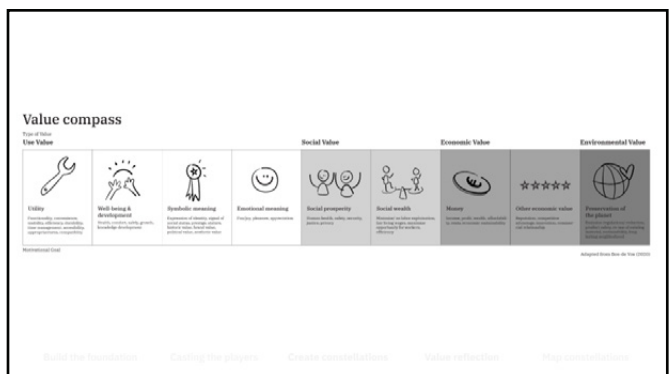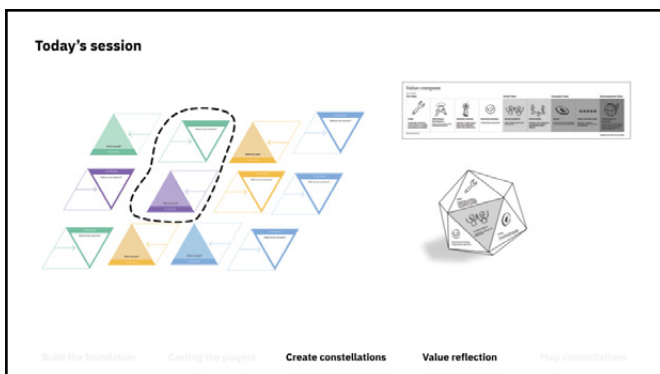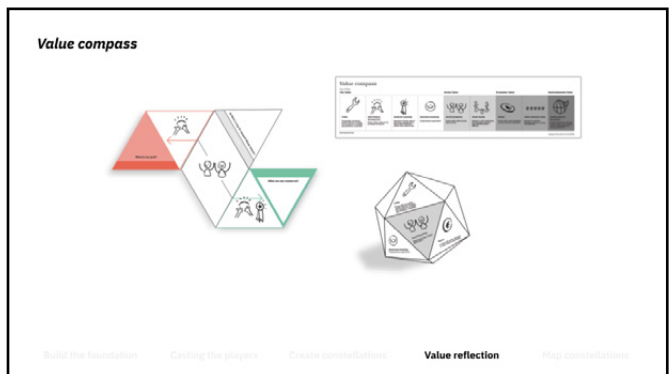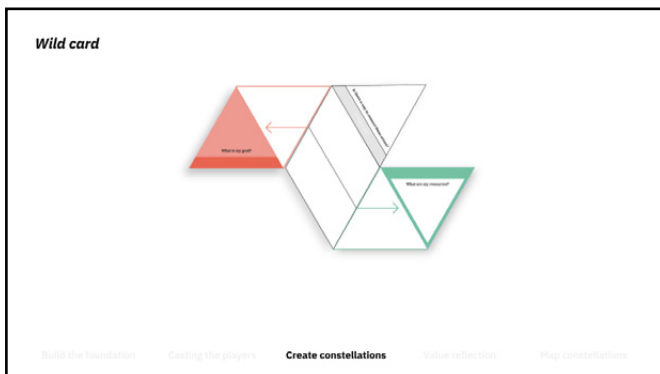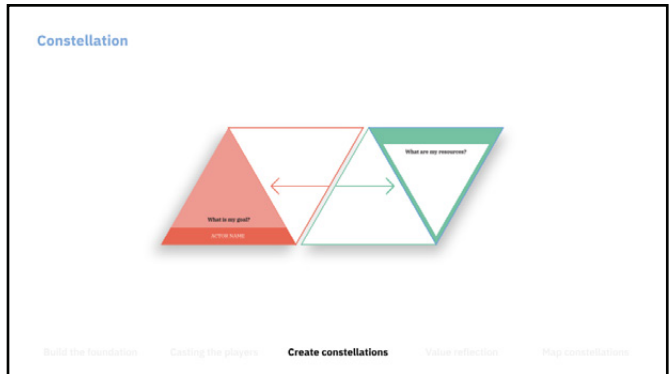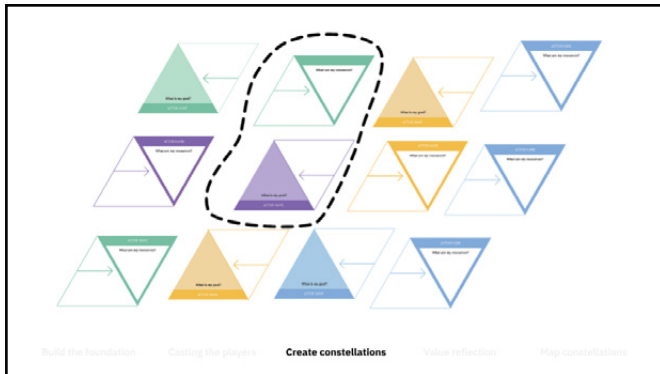| Time	Duration	Activity	Who	To do	Material
11:00	5	Welcome & Introduction	Dafne	-Start audio recording	*-Consent forms* -Laptop (support slides) -Refreshments -Audio recording
11:05	10	**Context & Tool Introduction** Setting the scene -Introduce tool with example -Present previous steps, build the foundation, casting the players Everything clear? -Explain *create constellations* step Split in two groups	Dafne	-Distribute *feedback canvas* to gather notes on steps that will not be addressed in the workshop	-Laptop (support slides) -Refreshments *-Feedback canvas* -Post its -Markers -Audio recording
11:10	5	Short discussion, solve doubts	Together	-Add/adjust major changes	-value ecosystem canvas: -Purpose helix -Actor cards
11:15	5	Icebreaker	Together	*ecosystem metaphor	
11:20	60	**Value ecosystem canvas** 10min-Read through actor cards 25min-Create constellations 25min-Value reflection	They	-Start timer	-Actor cards -Value compass -Value dice -Post-its -Small post-its -Markers -Mobile for time
12:20	10	Break	Dafne	-Collect feedback forms	-Camera
12:30	20	**Tool Evaluation** Brief sharing Keep-kill-build Evaluation Form Peer feedback	They	-Distribute *Evaluation forms*	*-Evaluation form* -Pens/markers -Camera -Mobile for time
12:45	5	**Wrap up & closing** Closing questions Next Steps Take pictures of materials	Dafne	-Collect evaluation forms	-Camera -Consent forms
	120				

Q
Pilot session — Set-up
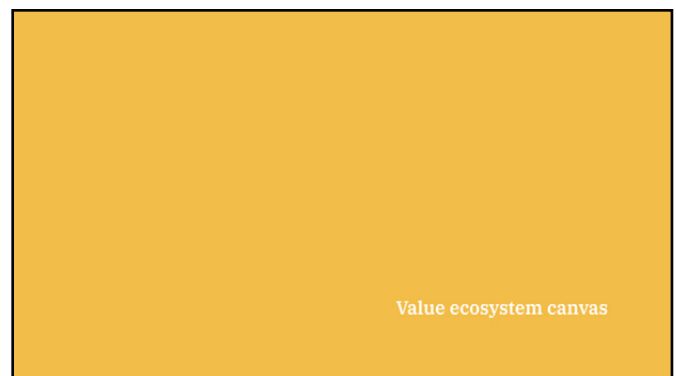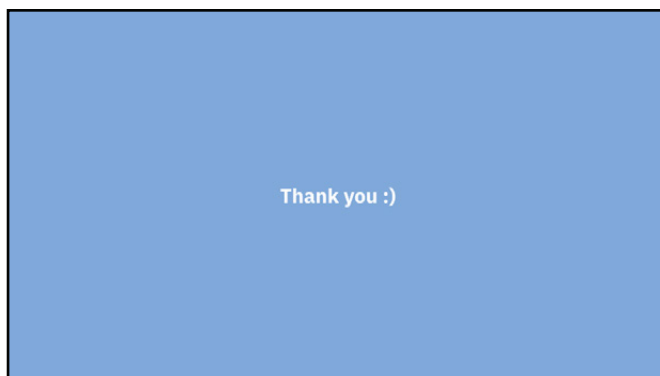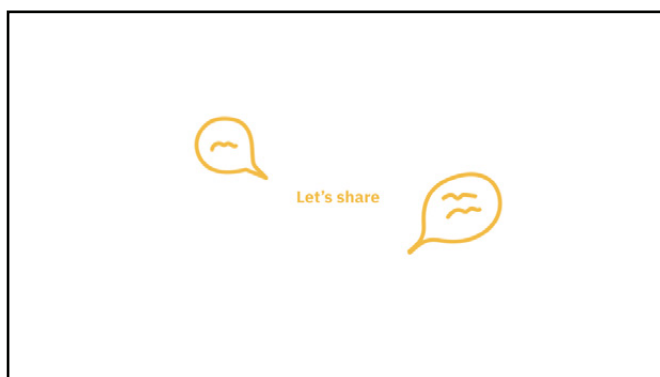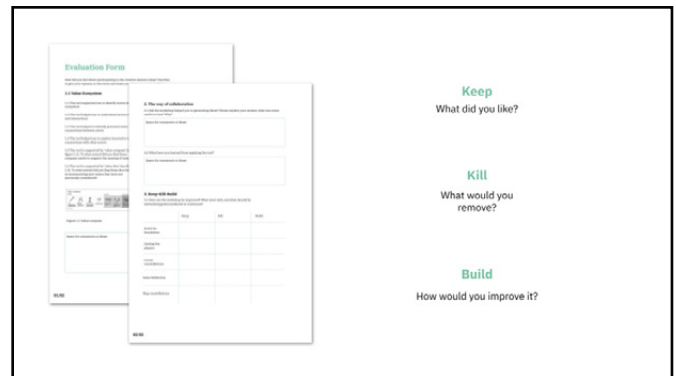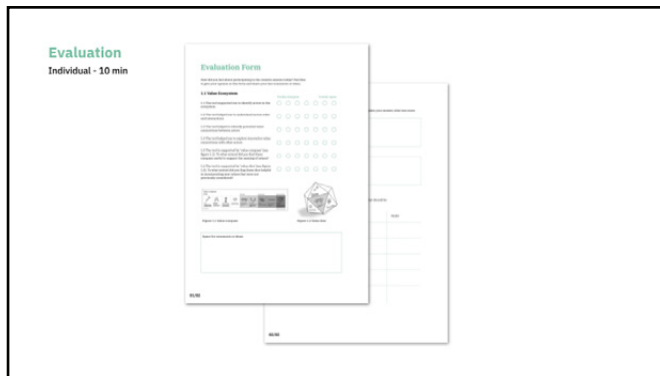
A set of slides used to facilitate the session.
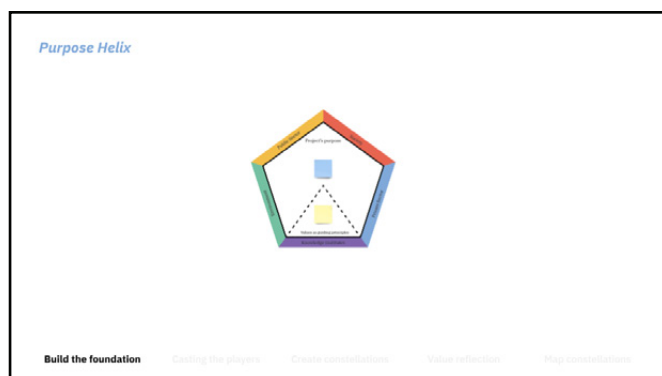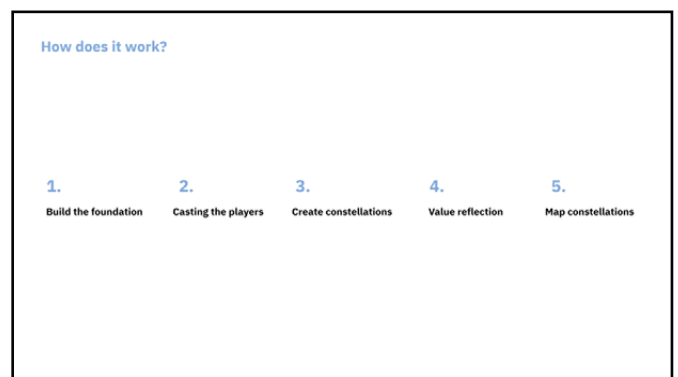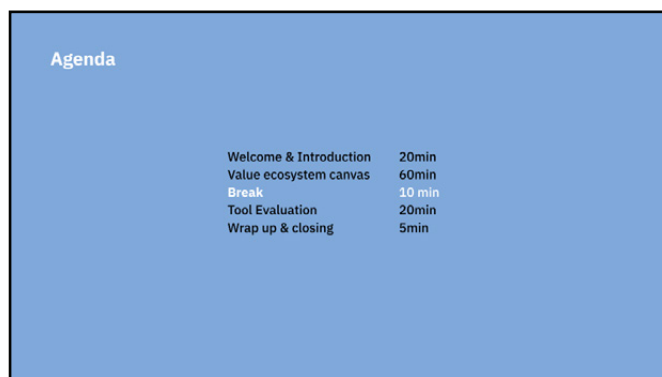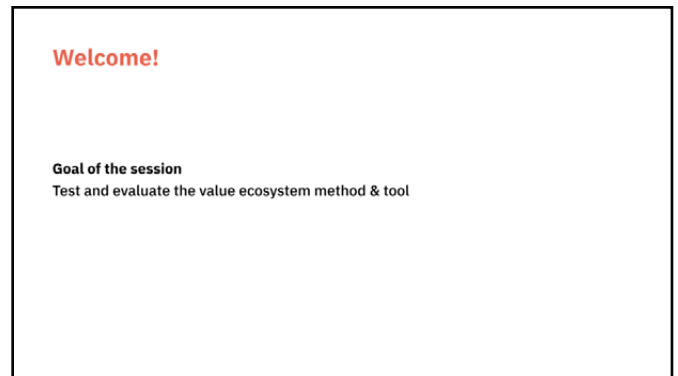
Pilot session — Set-up

Q
Pilot session — Set-up

Evaluation
Individual - 10 min

Evaluation Form

Keep
What did you like?

Kill
What would you remove?

Build
How would you improve it?

Let's share

Wrap up & next steps

Analyze data from session

Adjustments & refinement of the tool

Additional testing session

Thank you :)

Value ecosystem canvas
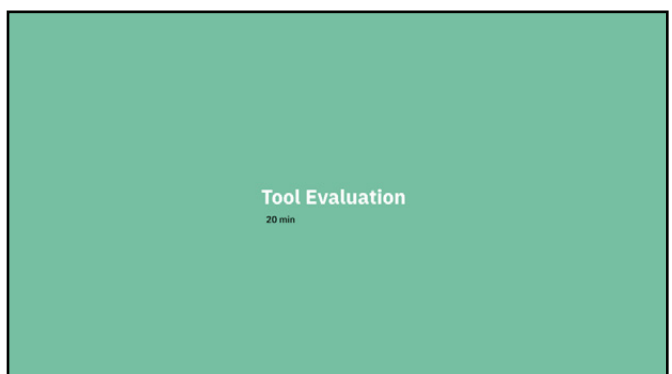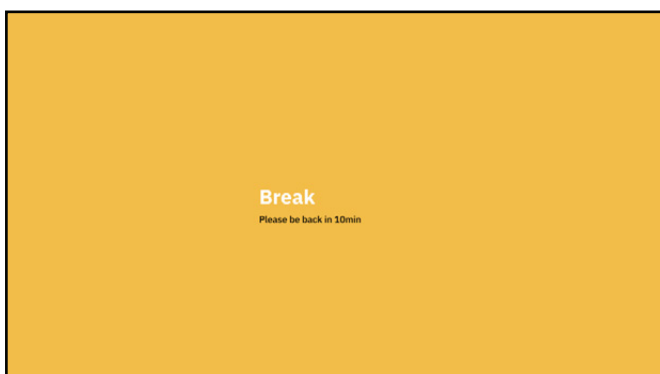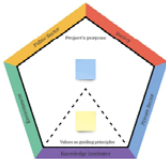
R
Pilot session — Facilitation Guide

Guide for pilot session including estimated time for each activity and facilitation questions.

Step	No.	Step	Tool	Time	Description	Facilitation Guide
	1	**Setting the scene**		10 min	Brief introduction to the tool alongside fully populated example	
	2	**Build the foundation**		10min	Participants define the unit of analysis, may be a product, service or project. Using the *purpose helix,* participants agree on the purpose and establish values as guiding principles to guide actions within the ecosystem.	**Purpose** -What is the unit of analysis that we will focus on: product, service offering, project -What is the primary reason for the existence of our project and our (organization/consortium)? -Why should any actor care about the existance of (unit of analysis)? **Values as Guiding Principles** -What are the values act as our (unit of analysis) guides? -What are the values that guide our actions?
Diverging	3	**Casting the players**		10min	The five segments of the helix are populated through facilitated brainstorming.	**Think about each of the actors:** -Who are the main actors in this ecosystem? -Which actors influence our operation? -Which actors have a similar purpose than us? -Who has an impact in our activities, maybe not directly?
				20min	Using the actors cards: actors goals, actors resources, participants fill in with actors more pertinent to the project's purpose.	**Actor's Cards** Goals: -What does this actor wants to achieve? -What are their objectives? -What can they be struggling with? **Resources** -Think about the resources each actor has (tangible/ intangible) Resources at the disposal of the actor to be utilized for value creation -Which facilities, materials, assets, does this actor has access to? -What are the competences, expertise, connections an actor has?
Reverging	4	**Create constellations**		30min	Participants examine the actor's goals and resources and look for potential points of connection. The objective is to identify actors who could achieve their goals with another's resources.	**Constellations** Take a step back and look at the different actors goals and resources. Try to see potential ways in which they could help each other. Take one actor and see which potential resources could be connected -What if new capabilities or activities were introduced? -How might emerging technologies could offer potential solutions?
		Adding wild card		20min	After completing this exercise, the wild card is introduced. The wild card assists participants in determining whether there is a potential connection between the protagonists through the introduction of an activity, capability, product, or service.	**Wild card** Do not be constrained by rationality or practicality of ideas -How might new partnerships be created to fulfill an actors goals? -What if an additional partner was added? -What if they offer additional activities, products or services? Zoom out and look at all the actors: -Are there goals from one actor that influence the goal of another one?

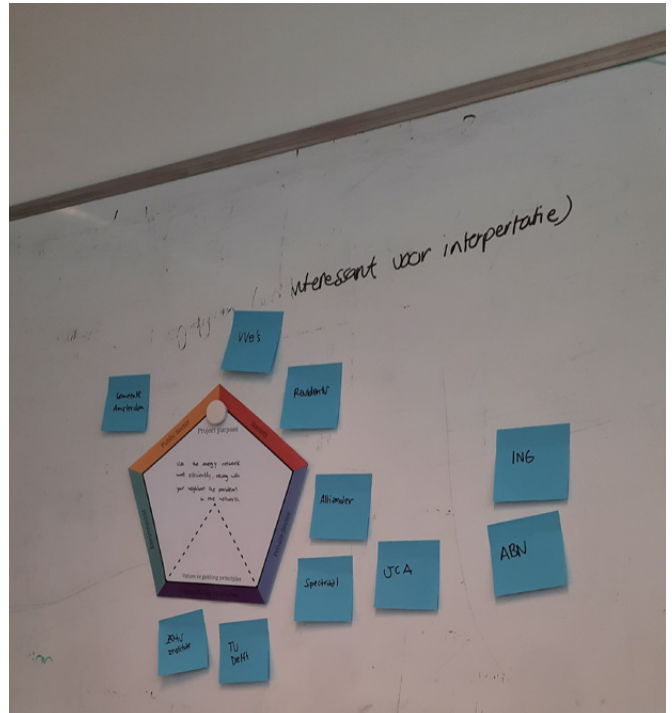-If an actor provides X to another actor, what values do they receive in exchange?
Try to go beyond the assumption that actor persue economic value, what other types of value could be interesting to explore?

Reverging	***Value Dice**	10min	After the initial round, participants are asked to consider the project's purpose and guiding values. In this step, the value dice is used to begin from a previously unexplored value and determine if there is an opportunity to promote it within the ecosystem.	**Value Dice** Look at the values mapped in the ecosystem, and then circle back to the purpose helix and the values as guiding principles. Are there any values that are missing? Roll the value dice and pick a value type that hasn't been used yet. Evaluate the current constellations. -Could this value be promoted in the ecosystem in some way? -Who among the actors could influence another to promote this value?
Reverging	**Map the constellations**	15min	Summarize constellations using the *value ecosystem proposition* canvas	For *actor A* that want to **goal**, *actor B* offers **wild card,** using *actor C* **resources**, achieving **value**
		20min	To look at all generated options holistically and concentrate on specific options, the step Map the constellations explores the feasibility and originality of constellations by plotting them in a C-Box.	Let's plot the constellations in the matrix with the summarized statements. -Is there a particular area on the matrix which needs further exploration?
Converging	**Define interventions**	15min	Participants define first interventions that they can take, leading to the potential involvement of an additional stakeholder or value exchange in the project. To reduce uncertainty in the value exchange, it is necessary to evaluate the assumptions outlined in the value ecosystem canvas.	Using the constellation map as inspiration, let's use post-it notes to ask ourselves: 'What can I do tomorrow to take a step further to achieve this constellation?' -Is there something I can look into, somebody I can question, or someone I can get in touch with? -How can we modify our approach to the project to make this happen?

3hrs

S
Pilot session — Activities

The session focused on the steps of creating constellations and naming values.

With actor cards on the table, participants seek for constellations.

Purpose Helix with actors
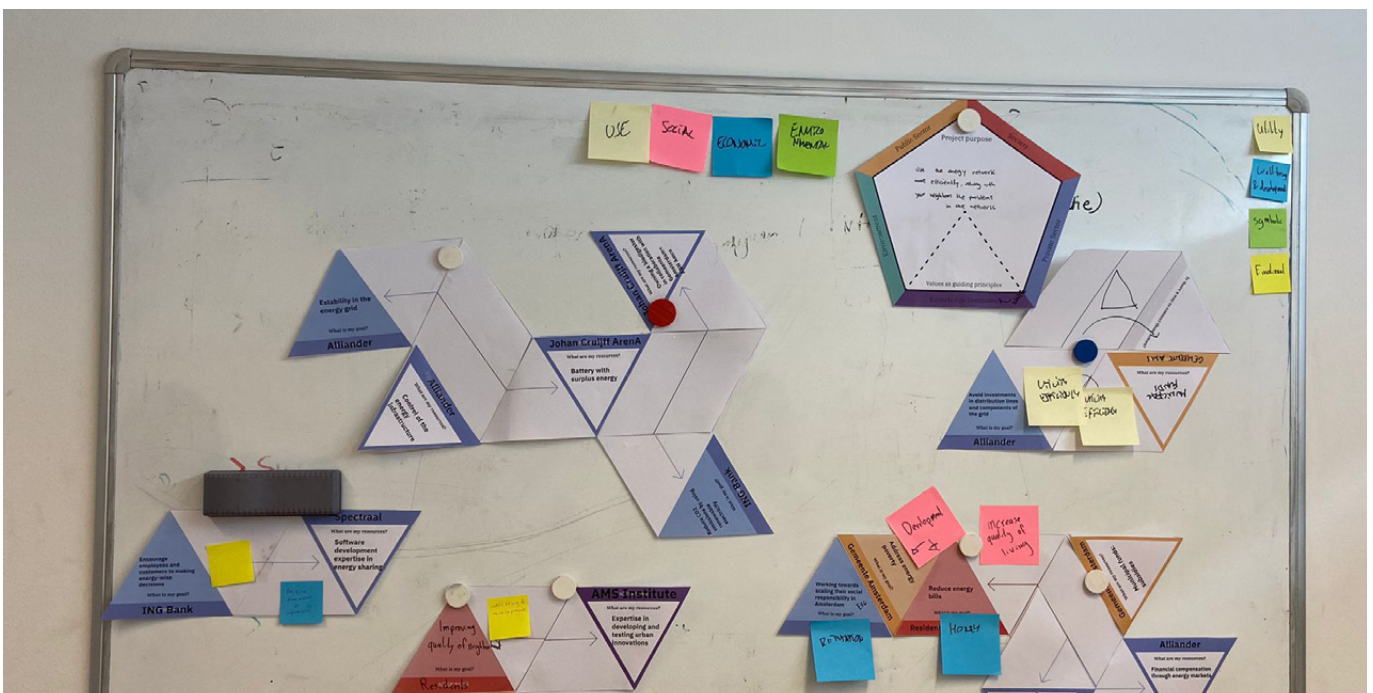
Constellations and value exchanges with colored post-its

T
Pilot session—Evaluation Form

Evaluation form used during pilot session to evaluate usability and tool's method.

Evaluation Form

How did you feel about participating in the creative session today? Feel free to give your opinion in this form and share your last comments or ideas.

1.1 Value Ecosystem

	Totally disagree						Totally agree
1.1 The tool supported me to identify actors in the ecosystem	○	○	○	○	○	○	○
1.2 The tool helped me to understand actors roles and interactions	○	○	○	○	○	○	○
1.3 The tool helped to identify potential value connections between actors	○	○	○	○	○	○	○
1.4 The tool helped me to explore innovative value connections with other actors	○	○	○	○	○	○	○
1.5 The tool is supported by 'value compass' (see figure 1.1). To what extend did you find these compass useful to support the naming of values?	○	○	○	○	○	○	○
1.6 The tool is supported by 'value dice' (see figure 1.2). To what extend did you fing these dice helpful in incorporating new values that were not previously considered?	○	○	○	○	○	○	○

Figure 1.1 Value compass

Figure 1.2 Value dice

Space for comments or ideas:

T
Pilot session—Evaluation Form

2. The way of collaboration

2.1 Did the workshop helped you to generating ideas? Please explain your answer, what was more useful or less? Why?

> Space for comments or ideas:

2.2 What have you learned from applying the tool?

> Space for comments or ideas:

3. Keep-Kill-Build

3.1 How can the workshop be improved? What went well, and what should be started/stopped/considered or continued?

	Keep	Kill	Build
Build the foundation			
Casting the players			
Create constellations			
Value Reflection			
Map constellations			

U
Pilot session — Evaluation Form results

Forms filled out by participants during the pilot session.

Evaluation Form

How did you feel about participating in the creative session today? Feel free to give your opinion in this form and share your last comments or ideas.

1.1 Value Ecosystem

	Totally disagree	Totally agree

1.1 The tool supported me to identify actors in the ecosystem — ○ ○ ○ ○ ○ ○ ⊗

1.2 The tool helped me to understand actors roles and interactions — ○ ○ ○ ○ ⊗ ○ ○
I don't know if these are perceived roles, possible roles vs actual roles.

1.3 The tool helped to identify potential value connections between actors — ○ ○ ○ ○ ○ ○ ⊗

1.4 The tool helped me to explore innovative value connections with other actors — ○ ○ ○ ○ ○ ⊗ ○
definitely explore, innovative? IDK what innovative would mean in this context.

1.5 The tool is supported by 'value compass' (see figure 1.1). To what extend did you find these compass useful to support the naming of values? — ○ ⊗ ○ ○ ○ ○ ○
shifted conversation from exchange of values, to categorisation itself.

1.6 The tool is supported by 'value dice' (see figure 1.2). To what extend did you find these dice helpful in incorporating new values that were not previously considered? — ○ ○ ○ ⊗ ○ ○ ○
maybe colour coding could help find lower density value.

Value compass

Figure 1.1 Value compass   Figure 1.2 Value dice

Space for comments or ideas:
split in two workshops.
1. All about identification, connections / value exchange
2. The actual stakeholders of value exchange can decide on the categorisation of value. representatives

---

2. The way of collaboration

2.1 Did the workshop helped you to generating ideas? Please explain your answer, what was more useful or less? Why?

Space for comments or ideas:
Useful because the arrows make you believe in the possibility for connection, so then you find the connection.

2.2 What have you learned from applying the tool?

Space for comments or ideas:
There are many ways to collaborate.

3. Keep-Kill-Build

3.1 How can the workshop be improved? What went well, and what should be started/stopped/considered or continued?

Feedback canvas

Write down your thoughts and initial ideas while you listen to the explanation. Is something not clear? What could be improved/stopped or considered?

	Keep	Kill	Build
Build the foundation	Focus	Values as guiding principle (beginning - need ?)	Updated
Casting the players	★ ★ ★		CARDS! - Example.
Create constellations			
Value Reflection	★ ★ ★		l
Map constellations			

U
Pilot session — Evaluation Form results

Evaluation Form

How did you feel about participating in the creative session today? Feel free to give your opinion in this form and share your last comments or ideas.

1.1 Value Ecosystem

	Totally disagree					Totally agree	
1.1 The tool supported me to identify actors in the ecosystem	○	○	○	○	○	ⓧ	○
1.2 The tool helped me to understand actors roles and interactions	○	○	○	○	ⓧ	ⓧ	○
1.3 The tool helped to identify potential value connections between actors	○	○	○	○	○	ⓧ	○
1.4 The tool helped me to explore innovative value connections with other actors	○	○	○	○	ⓧ	○	○
1.5 The tool is supported by 'value compass' (see figure 1.1). To what extend did you find these compass useful to support the naming of values?	○	○	○	○	ⓧ	○	○
1.6 The tool is supported by 'value dice' (see figure 1.2). To what extend did you fing these dice helpful in incorporating new values that were not previously considered?	○	○	○	○	○	○	ⓧ

(handwritten) I FEEL LIKE FORCE FITTING POSSIBLE VALUES IS VERY HELPFUL IN UNDERSTANDING THE DYNAMICS OF THE EXCHANGE BETWEEN THE ACTORS.

(handwritten, right) IT CAN ALSO GIVE NEW VIEWPOINTS INTO THE USE OF THE NETWORKS TO GET TO THE GOAL & CHANGE POSSIBLE NEW ACTOR.

Figure 1.1 Value compass   Figure 1.2 Value dice

Space for comments or ideas:
(handwritten) • I FEEL LIKE THE VALUES WILL BE HETEROGENEOUSLY USED. SOME ARE VERY RELATABLE WITH THE CONTEXT BUT OTHERS MIGHT BE TOO USER-CENTERED. COULD BE A GREAT INSIGHT FOR FUTURE WORK SUGGESTIONS. "HOW WOULD THE CHOSEN VALUES AFFECT HOW THE EXCHANGE IS UNDERSTOOD?" /CATEGORIZATION

2. The way of collaboration

2.1 Did the workshop helped you to generating ideas? Please explain your answer, what was more useful or less? Why?

Space for comments or ideas:
(handwritten) Some idea's I had heard already, like the knowledge sharing It's nice to see it together.

2.2 What have you learned from applying the tool?

Space for comments or ideas:
(handwritten) The complexity of the goals connected was really nice to See. Also the easiness everyone made these connections.

3. Keep-Kill-Build

3.1 How can the workshop be improved? What went well, and what should be started/stopped/considered or continued?

	Keep	Kill	Build
Build the foundation	*(drawing)* principles / goal		
Casting the players	colors		I actor per person? familiarise with goals
Create constellations	really nice!		
Value Reflection	Values are created in interactions.		
Map constellations	wasn't really intuitive to put it on the whites		

Figure 1.1 Value compass

Figure 1.2 Value dice

U
Pilot session — Evaluation Form results

Evaluation Form

How did you feel about participating in the creative session today? Feel free to give your opinion in this form and share your last comments or ideas.

1.1 Value Ecosystem

	Totally disagree					Totally agree	
1.1 The tool supported me to identify actors in the ecosystem	○	○	○	○	○	⊗	○
1.2 The tool helped me to understand actors roles and interactions	○	○	○	○	○	○	⊗
1.3 The tool helped to identify potential value connections between actors	○	○	○	○	○	⊗	○
1.4 The tool helped me to explore innovative value connections with other actors	○	○	○	○	○	○	⊗
1.5 The tool is supported by 'value compass' (see figure 1.1). To what extend did you find these compass useful to support the naming of values?	○	○	○	○	○	⊗	○
1.6 The tool is supported by 'value dice' (see figure 1.2). To what extend did you fing these dice helpful in incorporating new values that were not previously considered?	○	○	○	○	○	○	⊗

(handwritten) AS MENTIONED, WE FOUND OVERLAP WITH WELL-BEING AND SOCIAL PROSPERITY

Figure 1.1 Value compass
Figure 1.2 Value dice

(handwritten) I USED THE "VALUE COMPASS" FOR THIS PHASE

Space for comments or ideas:
(handwritten) THE BEGINNING OF THE "CREATE CONSTELLATION" FELT A BIT OVERWHELMING — MAYBE ADDING A "RULE" TO HELP GETTING IT STARTED.

2. The way of collaboration

2.1 Did the workshop helped you to generating ideas? Please explain your answer, what was more useful or less? Why?

Space for comments or ideas:
(handwritten) THE SHAPES WERE VERY USEFUL TO CONNECT DIFFERENT PARTS (ALSO GIVING THE RIGHT AFFORDANCE).

2.2 What have you learned from applying the tool?

Space for comments or ideas:
(handwritten) THE TOOL SHOWED ME THAT STAKEHOLDERS ARE MULTIFACETED & THAT DIFFERENT VALUES. CAN BE USED AS A LENS TO CONSIDER.

3. Keep-Kill-Build

3.1 How can the workshop be improved? What went well, and what should be started/stopped/considered or continued?

	Keep	Kill	Build
Build the foundation	U		
Casting the players	U		
Create constellations			
Value Reflection	GREAT TO ENTERTAIN DISCUSSIONS		
Map constellations			

(handwritten) CLARIFY A BIT THE TWO STEPS / HOW THEY ARE DIFFERENT.

Feedback canvas

(handwritten top) GOALS & RESOURCES

Write down your thoughts and initial ideas while you listen to the explanation. Is something not clear? What could be improved/stopped or considered?

	Keep	Kill	Build
Build the foundation			
Casting the players			
Create constellations	GOAL/ROLES DEFINITION, MAKE CONNECTION (JOKER)		this phase has 3 sub steps —maybe make them emerge more?
Value Reflection			
Map constellations			I'm not sure if this is a second round of making connections, or if it & has a different element

U
Pilot session- Evaluation Form results

Using a Likert scale ranging from one to seven points, quantitative results are displayed as a bar chart.

What have participants learned?

'The tool showed me that ***stakeholders are multifaceted*** *& that different values can be used as a lens'*

'The complexity of multiple goals connected was really nice to see, also the ***easiness*** *with which everyone* ***made these connections''***

'The arrows make you believe in the possibility for connection, so then you find the connection'
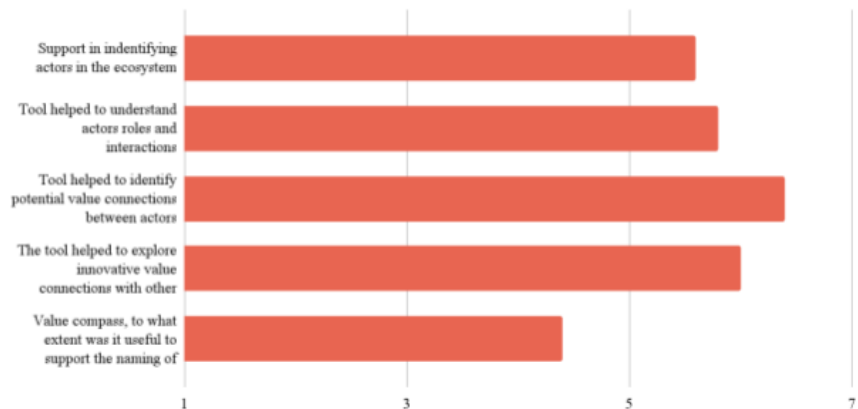
A keep-kill-build table expressing qualitative feedback on the tool's method.

Pilot session

	Keep	Kill	Build	
Build the foundation		Values as guiding principles seem to connect to knowledge institutes		-Purpose Helix adjusted
Casting the players	*Add colors		- Cards with an example -Specify for Environment. Are the actors, flora & fauna, water, planet city? -1 actor per participant to familiarize with goals	-Participants role-playing actors
Create constellations	Good to have a goal per card	*should values as guiding principles come back -The beginning is overwhelming, perhaps add a 'rule' to help getting it started	-Multiple actors resources to achieve a goal. How to show it with the card	-Reflect on values as guiding principles -Start from one actor, to break the ice
Value Reflection	Great to provoke discussions	Not really intuitive to write on the white section	Add color coding to values to lower their density Value compass per participant	-Color code on values -Adjustment on card shape -Value compass per participant
Map constellations				-Reflect on **goals** that are not fulfilled -Constellations to analyze **activities**

V
Validation session — Set up

The tool was validated with project partners from the LIFE project, the following guide provides a guide for the facilitator.

Location: Huis van de Toekomst
Time: 2hrs

Goal: Test and evaluate value ecosystem tool

Time	Duration	Activity	Who	To do	Material
11:00	5	Welcome & Introduction	Dafne	-Start audio recording	-*Consent forms* -Laptop (support slides) -Refreshments -Audio recording
11:05	10	**Context & Tool Introduction** Setting the scene -Introduce tool with example -Present previous steps, build the foundation, casting the players Everything clear? -Explain *create constellations* step Split in two groups	Dafne	-Distribute *feedback canvas* to gather notes on steps that will not be addressed in the workshop	-Laptop (support slides) -Refreshments -*Feedback canvas* -Post its -Markers -Audio recording
11:10	5	Short discussion, solve doubts	Together	-Add/adjust major changes	-value ecosystem canvas: -Purpose helix -Actor cards
11:15	5	Icebreaker	Together	*ecosystem metaphor	
11:20	60	**Value ecosystem canvas** 10min-Read through actor cards 25min-Create constellations 25min-Value reflection	They	-Start timer	-Actor cards -Value compass -Value dice -Post-its -Small post-its -Markers -Mobile for time
12:20	10	Break	Dafne	-Collect feedback forms	-Camera
12:30	20	**Tool Evaluation** Brief sharing Keep-kill-build Evaluation Form Peer feedback	They	-Distribute *Evaluation forms*	-*Evaluation form* -Pens/markers -Camera -Mobile for time
12:45	5	**Wrap up & closing** Closing questions Next Steps Take pictures of materials	Dafne	-Collect evaluation forms	-Camera -Consent forms
	120				

V
Validation session — Facilitation Guide

Facilitation guide

Value Ecosystem canvas

Detailed description of workshop steps

Step	No.	Step	Tool	Time	Description	Facilitation Guide
	1	Setting the scene		10 min	Brief introduction to the tool alongside fully populated example	
Purpose & actors in the ecoystem						
	2	Establish the principles		10min	Subsequently, in establish the principles, participants will define the unit of analysis, which may be a product, a service, or a project offered by the collaborative network. Using the purpose helix, participants will agree on the purpose of the unit of analysis and using the value as guiding principles compass, establish the values as guiding principles for actions within the ecosystem.	**Purpose** -What is the unit of analysis that we will focus on: product, service offering, project -What is the primary reason for the existence of our project and our (organization/consortium)? -Why should any actor care about the existance of (unit of analysis)? **Values as Guiding Principles** -What are the values that act as our (unit of analysis) guides? -What are the values that guide our actions?
Diverging	3	Casting the actors		10min	The five segments of the helix are populated through facilitated brainstorming. Taking into consideration the actors who may play a role in achieving the collaborative network's purpose. This could include potential customers, competitors, suppliers, or other businesses with distinct responsibilities but potentially similar objectives. A color will be allocated to the chosen actors based on the sector to which they belong; each actor will be assigned actor cards.	**Think about each of the actors:** -Who are the main actors in this ecosystem? -Which actors influence our operation? -Which actors have a similar purpose than us? -Who has an impact in our activities, maybe not directly?
	4	Actors goals & resources		20min	The next phase will depend on the configuration of the workshop and the stage of the project, as well as whether or not the actors will be present at the session. When the tool is used in an exploratory phase, website and report analysis can be used to fill in the actor cards with the objectives and resources of potential actors. When actors will be present at the workshop, questions are sent in advance so that they can complete their actor cards. Actors may have multiple objectives and resources, but only those that are most relevant to the project's purpose should be included on their cards.	**Actor's Cards** *Goals* -What does this actor wants to achieve? -What are their objectives? -What can they be struggling with? *Resources* -Think about the resources each actor has (tangible/ intangible) Resources at the disposal of the actor to be utilized for value creation -Which facilities, materials, assets, does this actor has access to? -What are the competences, expertise, connections an actor has?

50min

Step	No.	Step	Tool	Time	Description	Facilitation Guide
Value constellations						
Reverging	5	Create constellations		30min	Using the completed actor cards from the previous stage as a guide, the next step is to create constellations. Participants examine the actor's goals and resources cards and look for potential points of connection. The objective is to identify actors who could achieve their goals with another's resources. After completing this exercise, the wild card is introduced. The wild card assists participants in determining whether there is a potential connection between the protagonists through the introduction of an activity, capability, product, or service. Actors that are presently absent from the ecosystem may be introduced.	**Constellations** Take a step back and look at the different actors goals and resources. Try to see potential ways in which they could help each other. Take one actor and see which potential resources could be connected -What if new capabilities or activities were introduced? -How might emerging technologies could offer potential solutions? **Wild card** Do not be constrained by rationality or practicality of ideas -How might new partnerships be created to fulfill an actors goals? -What if an additional partner was added? -What if they offer additional activities, products or services? Zoom out and look at all the actors: -Are there goals from one actor that influence the goal of another one?

V
Validation session — Facilitation Guide

Reverging	5	**Naming values**		20min	Once potential constellations have been established, Naming values provides participants with the value compass so they can identify the values being exchanged between actors. If an actor provides X to another actor, what values do they receive in exchange? Participants use the value stickers to label the type of value being captured by each of the actors.	**Value Reflection** Now let's take a step back and look at the value compass. These values are a classification of worth qualities, grouped in different types of value. Start from one constellation, imagine the exchange happens: -What could be potential values that each actor think as worthy? -If an actor provides X to another actor, what values do they receive in exchange? Try to go beyond the assumption that actor persue economic value, what other types of value could be interesting to explore?

<table>
<tr><td rowspan="2">Reverging</td><td>5</td><td>Naming values</td><td></td><td>20min</td><td>Once potential constellations have been established, Naming values provides participants with the value compass so they can identify the values being exchanged between actors. If an actor provides X to another actor, what values do they receive in exchange? Participants use the value stickers to label the type of value being captured by each of the actors.</td><td>Value Reflection
Now let's take a step back and look at the value compass. These values are a classification of worth qualities, grouped in different types of value. Start from one constellation, imagine the exchange happens:
-What could be potential values that each actor think as worthy?
-If an actor provides X to another actor, what values do they receive in exchange?
Try to go beyond the assumption that actor persue economic value, what other types of value could be interesting to explore?</td></tr>
<tr><td></td><td>*Value Dice</td><td></td><td>10min</td><td>In this phase, the value dice is introduced as an entertaining way to determine if there is an opportunity to promote undiscovered value within the ecosystem.
Participants are asked to consider the project's purpose and guiding values. In this step, the value dice is used to begin from a previously unexplored value and determine if there is an opportunity to promote it within the ecosystem.</td><td>Value Dice
Look at the values mapped in the ecosystem, and then circle back to the purpose helix and the values as guiding principles. Are there any values that are missing?
Roll the value dice and pick a value type that hasn't been used yet. Evaluate the current constellations.
-Could this value be promoted in the ecosystem in some way?
-Who among the actors could influence another to promote this value?</td></tr>
<tr><td rowspan="2">Reverging</td><td></td><td>Explore constellations</td><td rowspan="2"></td><td>10min</td><td>Participants are then asked to summarize in a constellation statement the constellations created, including actors, goals, resources, and values exchanged.</td><td>Let's summarize the constellation using the constellation statement to guide us.
For actor A that want to goal, actor B offers wild card, using actor C resources, achieving value</td></tr>
<tr><td></td><td></td><td>20min</td><td>Then, they are asked to look back and reflect on the purpose helix and guiding values. Considering which constellations are more or less aligned with the purpose helix. Constellations that are more in line with the purpose helix are prioritized.</td><td>Let's summarize the constellation using the constellation statement to guide us.</td></tr>
<tr><td>Converging</td><td></td><td>Define interventions</td><td></td><td>20min</td><td>The workshop ends with participants defining the first activities or interventions that they could take to explore the constellations further, leading to the potential involvement of an additional stakeholder or value exchange in the project. To reduce uncertainty in the value exchange, it is necessary to evaluate the assumptions outlined in the value ecosystem canvas.</td><td>Using the constellation map as inspiration, let's use post-it notes to ask ourselves:
'What can I do tomorrow to take a step further to achieve this constellation?'
-Is there something I can look into, somebody I can question, or someone I can get in touch with?
-How can we modify our approach to make this happen?</td></tr>
<tr><td></td><td></td><td></td><td></td><td>2hrs</td><td></td><td></td></tr>
</table>

Validation session — Visuals

Purpose Helix

Value compass

FOR PEOPLE

Type of Value
Use Value — Social Value — Economic Value — Environmental Value — **FOR PLANET**

Utility	Well-being & development	Symbolic meaning	Emotional meaning	Social prosperity	Social wealth	Money	Other economic value	Preservation of the planet
Functionality, convenience, usability, efficiency, durability, time management, accessibility, appropriateness, compatibility	Health, comfort, safety, growth, knowledge development	Expression of identity, signal of social status, prestige, stature, historic value, brand value, political value, aesthetic value	Fun/joy, pleasure, appreciation	Human health, safety, security, justice, privacy	Minimise/ no labor exploitation, fair living wages, maximize opportunity for workers, efficiency	Income, profit, wealth, affordability, rents, economic sustainability	Reputation, competitive advantage, innovation, commercial relationship	Emission regulations/ reduction, product safety, re-use of existing material, sustainability, long lasting neighborhood

Motivational Goal

Adapted from Bos-de Vos (2020)

(Value compass repeated four times)

Values as guiding principles

Type of Value
HUMAN VALUES
Schwartz & Bilsky, 1987

Enjoyment	Security	Achievement	Self-direction	Restrictive-conformity	Prosocial	Social power

| Autonomy | Embeddedness | Egalitarianism | Hierarchy | Harmony | Mastery | |

CULTURAL VALUES
Schwartz, 2006

Adapted from Bos-de Vos (2020)

Value Dice

Adapted from Bos-de Vos (2020)

Value Dice

Value Stickers

50

X
Validation session — Activities

During the validation session, participants construct the
following constellations.

X
Validation session — Activities

Constellations summarized in constellation statement.

Evaluation Form

How did you feel about participating in the creative session today? Feel free to give your opinion in this form and share your last comments or ideas.

1.1 Value Ecosystem

	Totally disagree						Totally agree
1.1 The tool supported me to identify actors in the ecosystem	○	○	○	○	○	○	○
1.2 The tool helped me to articulate value exchanges	○	○	○	○	○	○	○
1.3 The tool helped to identify potential value connections between actors	○	○	○	○	○	○	○
1.4 The tool is supported by 'value compass' (see figure 1.1). To what extend did you find these compass useful to support the naming of values?	○	○	○	○	○	○	○
1.5 The tool is supported by 'value dice' (see figure 1.2). To what extend did you fing these dice helpful in incorporating new values that were not previously considered?	○	○	○	○	○	○	○

Figure 1.1 Value compass

Figure 1.2 Value dice

1.6 At which stages or steps of a project's workflow would you integrate the use of the tool?

1.7 What challenges do you foresee when using the tool in your professional practice?

1.8 How do you envision the tool enhancing the consortium's way of working?

Y
Validation session — Evaluation Form

2. The way of collaboration

2.1 Did the workshop helped you to generating ideas? Please explain your answer, what was more useful or less? Why?

Space for comments or ideas:

2.2 What have you learned from applying the tool?

Space for comments or ideas:

3. Keep-Kill-Build

3.1 How can the workshop be improved? What went well, and what should be started/stopped/considered or continued?

	Keep	Kill	Build
Build the foundation			
Casting the players			
Create constellations			
Value Reflection			

Z
Validation session — Evaluation Form results

Forms filled out by participants during the validation session.

Evaluation Form

How did you feel about participating in the creative session today? Feel free to give your opinion in this form and share your last comments or ideas.

1.1 Value Ecosystem

	Totally disagree						Totally agree
1.1 The tool supported me to identify actors in the ecosystem	○	⊗	⊗	○	○	○	○
1.2 The tool helped me to articulate value exchanges	○	○	○	○	○	⊗	○
1.3 The tool helped to identify potential value connections between actors	○	○	○	○	○	⊗	○
1.4 The tool is supported by 'value compass' (see figure 1.1). To what extend did you find these compass useful to support the naming of values?	○	○	○	○	⊗	○	○
1.5 The tool is supported by 'value dice' (see figure 1.2). To what extend did you fing these dice helpful in incorporating new values that were not previously considered?	○	○	○	○	○	⊗	○

Figure 1.1 Value compass

Figure 1.2 Value dice

1.6 At which stages or steps of a project's workflow would you integrate the use of the tool?

At an intermediate stage. First a stakeholder analysis has to be done. comprehensive

1.7 What challenges do you foresee when using the tool in your professional practice?

The tool is dependent on identifying goals & resources for stakeholders, which can already be a challenge. Need lots of time to do it properly

1.8 How do you envision the tool enhancing the consortium's way of working?

As an aid for creative brainstorming. Not to replace regular/standard processes. It helps to generate ideas

01/02

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2. The way of collaboration

2.1 Did the workshop helped you to generating ideas? Please explain your answer, what was more useful or less? Why?

Space for comments or ideas:
Yes, it helped. The Dice was helpful to think about the less obvious options for value exchanges.

2.2 What have you learned from applying the tool?

Space for comments or ideas:
It is a more fun, less serious way of thinking about complicated topics. It also helped to illustrate the complexity

3. Keep-Kill-Build

3.1 How can the workshop be improved? What went well, and what should be started/stopped/considered or continued?

These are probably specifically — But hard to tell since other tools/methods we didn't do it for this

	Keep	Kill	Build
Build the foundation	*But good to have a way of chemising/aligning everyone in the beginning*	*Ideally this is already known beforehand*	
Casting the players		*This also*	
Create constellations	*This worked well also enforce the creative steam in Cleaning Convention*		*The values on the compass seem a bit random; Why this selection? also there is some overlap*
Value Reflection	*Dice works well to reflect on less obvious values*		

I see this as the core focus & strength of your tool

02/02

Validation session — Evaluation Form results

Evaluation Form

How did you feel about participating in the creative session today? Feel free to give your opinion in this form and share your last comments or ideas.

1.1 Value Ecosystem

	Totally disagree ○ ○ ⊗ ○ ○ ○ ○ Totally agree	
1.1 The tool supported me to identify actors in the ecosystem	○ ○ ⊗ ○ ○ ○ ○	(b.c. already prepared)
1.2 The tool helped me to articulate value exchanges	○ ○ ○ ○ ○ ⊗ ○	
1.3 The tool helped to identify potential value connections between actors	○ ○ ○ ⊗ ○ ○ ○	(already prepared)
1.4 The tool is supported by 'value compass' (see figure 1.1). To what extend did you find these compass useful to support the naming of values?	○ ○ ○ ○ ○ ○ ⊗	
1.5 The tool is supported by 'value dice' (see figure 1.2). To what extend did you fing these dice helpful in incorporating new values that were not previously considered?	⊗ ○ ○ ○ ○ ○ ○	

Figure 1.1 Value compass

Figure 1.2 Value dice

1.6 At which stages or steps of a project's workflow would you integrate the use of the tool?
- When new connection need to be made.
- When you need to step out of your "tunnel vision".

1.7 What challenges do you foresee when using the tool in your professional practice?
- quite time consuming (when does from start)
- challenging to get concrete results / action points

1.8 How do you envision the tool enhancing the consortium's way of working?
- it can create unforeseen links between actors
- fun, dynamic way to think out of the box and discuss bigger picture together

2. The way of collaboration

2.1 Did the workshop helped you to generating ideas? Please explain your answer, what was more useful or less? Why?

Space for comments or ideas:

yes, - from JCA perspective helpful how other actors can benefit / contribute to our goals / resources, also useful to learn about new links / overlapping goals between actors

2.2 What have you learned from applying the tool?

Space for comments or ideas:

ideas: combine actors with common goals to identify which resources can help them.

3. Keep-Kill-Build

3.1 How can the workshop be improved? What went well, and what should be started/stopped/considered or continued?

	Keep	Kill	Build
Build the foundation	prep was helpful		- with bigger group, pick more purposes? - link back to it at the end ! pick 5 most important ones when brainstorming with a small group
Casting the players	the preparation was very helpful	-	
Create constellations	✓	-	-
Value Reflection	✓ (wouldn't change anything here)	the value dice * was not very useful in my opinion (but it is a fun element)	-

Z
Validation session — Evaluation Form results

Evaluation Form

How did you feel about participating in the creative session today? Feel free to give your opinion in this form and share your last comments or ideas.

1.1 Value Ecosystem

	Totally disagree						Totally agree
1.1 The tool supported me to identify actors in the ecosystem	○	○	○	○	⊗	○	⊗
1.2 The tool helped me to articulate value exchanges	○	○	○	○	⊗	○	○
1.3 The tool helped to identify potential value connections between actors	○	○	○	○	⊗	○	○
1.4 The tool is supported by 'value compass' (see figure 1.1). To what extend did you find these compass useful to support the naming of values?	○	○	○	○	○	⊗	○
1.5 The tool is supported by 'value dice' (see figure 1.2). To what extend did you fing these dice helpful in incorporating new values that were not previously considered?	○	○	○	○	⊗	○	○

Figure 1.1 Value compass

Figure 1.2 Value dice

1.6 At which stages or steps of a project's workflow would you integrate the use of the tool?

In the early stage of scoping the project.

1.7 What challenges do you foresee when using the tool in your professional practice?

There is some overlap in actors or values, sometimes it's hard to distinguish them.

1.8 How do you envision the tool enhancing the consortium's way of working?

It's a fun way to think about value exchange and make it concrete. I wish we had this tool earlier!

01/02

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2. The way of collaboration

2.1 Did the workshop helped you to generating ideas? Please explain your answer, what was more useful or less? Why?

Space for comments or ideas:
A little bit, especially through the dice!

2.2 What have you learned from applying the tool?

Space for comments or ideas:
make things specific, make exchange visual helps me to understand the connections.

3. Keep-Kill-Build

3.1 How can the workshop be improved? What went well, and what should be started/stopped/considered or continued?

	Keep	Kill	Build
Build the foundation			
Casting the players			
Create constellations	x great way to visualize connections		x sometimes the clusters overlap or get too big. This makes it hard to zoom in on specific exchanges
Value Reflection	x helps with identifying the specific value		x there are so many, hard to understand the difference sometimes.

02/02

Session validation analysis.

When to use the tool?

I wish we had done that very soon, it that way we could scope the project very soon

it is too much to fill it in, helpful were you already did a stakeholder analysis

we had previous workshop and the preparation was very good. If we had to do it for ourselves is hard

Good flow related to the other workshops that we had

Tool enhancing the consortium way of working

Aid for creative brainstorming. Not to replace regular standard processes

it can create unforeseen links between actors

It's a **fun way** to think about value exchange and make it concrete. I wish we had had this tool earlier!

To generate ideas

fun, dynamic way to think out of the box and discuss **bigger picture**

Delve deeper into potential links

If you need to get new links, get inspired that was perfect

The strenght of the tool is getting deeper into the **links and the goals**

The core is making the links here

Useful to learn new link/ overlapping goals between actors

Challenges foreseen in using the tool in professional practice

Tool depends on identifying goals & resources for stakeholders, which can be a challenge

Need time to do it properly

There is some overlap in actors or values, sometimes hard to distinguish them

time consuming

getting concrete, results/action points

Stages or steps to integrate the tool

Intermediate stage, first a comprehensive stakeholder analysis has to be done

step out of tunnel vision

In the early stage of scoping the project

when new connections need to be made

Visual, Dynamic, refreshing

It gets very **visual**, it really helps to see the connections

you can see private sector is couple with society and that is interesting

very **fun** and dynamic way to think out of the box and make new links

It's really **refreshing**, is nice to have fun visual exercises in value connections is hard to think of yourself

interesting tool, useful and **fun** to use

A tool to navigate through complexity

I really enjoyed it, specially making the constellations, putting the values was a nice way to think about the **complexity**

It really helped showing the **complexity**, because you have some freedom to connect everything, gets chaotic but that's also how it is like

LIFE is quite **complex** and tried to tie technical challenges with social challenges and this could be a tool to put that together in a way.

Link back to it can help to become more complete

Make it actionable

How to move forward with this insights, bring everything together list of next steps

Explore connections between three partners, easy to make it actionable

Challenge to get concrete results, action points

Other tool to compliment

If I need to identify my stakeholder and actors, which I did already in the past, I wouldn't use this tool

Learned from applying the tool

More fun, less serious way of thinking about complicated topics

Illustrate complexity

combine actors with common goals to identify which resources can help them

Make things specific, make exchange visual helps me to understand the connections

Learn about others, open collaboration

From JCA perspective helpful how other actors can benefit/contribute to our goals/resources

Knowledge about actors

The lack of knowledge can be challenging

For me it was easy to represent the JCA, because AMS Institute I don't know what they do, but then you have the strenghts

Ideally you want that everyone is aware of the actors and resources

Experts can review what has been done in the previous group

Knowledge about the project

The tool only works if you have some knowledge about the project, something to keep in mind

you need to have knowledge to start the session

See what is needed here and then see what LIFE can do?

suggestions

maybe split, have some days and then

Worked well that we have less people

Have 2 sessions, focus on few stakeholders. If not you missed out on interesting constellations

Brainstorming with a small group

KEEP

Good to have a way of reminding/ aligning everyone in the beginning

Preparation was helpful

KILL

Ideally stakeholders known beforehand

BUILD

With bigger group, pick more purposes?

Link back to purpose at the end

Pick 5 most important ones when brainstorming with a small group

Build the foundation

These are probably other tools/methods

Casting the players

Create constellations

core focus and strenght of the tool

Emphasize the creative freedom in creating constellation

Great way to visualize connections

Sometimes the clusters overlap or get too big. This makes it **hard to zoom in on specific exchange**

Value Reflection

Dice works well to reflect on less obvious values

Helps with identifying the specific value

Value dice was not very useful in my opinion (but a **fun** element)

Values in the compass seem a bit random. Why this selection? Seems to be overlap

There are so many, hard to understand the difference sometimes

Why this value selection?

Some values are too abstract

Why this values? this selection? seems **ambiguous**

Some values are overlapping, the categories to me it wasn't always clear what is meant by society)

What categories are more relevant for this kind of exercises

Values are heterogeneously used, some are relatable to context, others not

Value compass seems to have different level of value (individual, organization, society) makes the categorization between different levels difficult

Is it important to know the difference between society and environment

Dice

Helped generating ideas?

Dice was helpful to think about the less obvious options for value exchanges

I did like the dice, it forces you to think about it. If we hadn't thrown the dice it wouldn't come out

A little bit, especially through the dice!

Didn't feel the dice added any value

Helps to articulate values

help to articulate value exchanges the value compass was very useful

?

The motivation of a resource giver is not explored

Are we also missing the other values?