

# Organisational change towards sustainable futures

A tool for Livework to enable organisations to think in sustainable and thriving systems.



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Graduation Thesis  
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‘Sustainable development can be defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.’

Brundtland, 1987

# Executive Summary

Organisational change towards sustainable futures

Sustainability or sustainable development is fast becoming one of the critical topics of our time. As per the Earth’s system we are in the ‘Anthropocene’ epoch, an era shaped fundamentally by humans. It is increasingly acknowledged that the way human life is organised is ecologically damaging and jeopardises the existence of most beings. Our society faces serious challenges, from rising global resource demands, climate change, threats to biodiversity, and land conversion (Prendeville, S., & Bocken, N., (2017). Businesses and organisations can no longer ignore or not address this challenge. ‘Regenerative sustainability’ sees humans and the rest of life as one, adopting a holistic vision with deeper leverage points with an aspiration to manifest thriving and flourishing living systems. This mindset is seen as the next wave of sustainability (Gibbons, L. V., (2020).

External pressures like changing societal norms, laws, policies, and regulations such as those on carbon neutrality, Net positivity, COP26 and UN Sustainable Development Goals are push for better eco-social goals for organisations. An academic report called “The limits of growth” discusses how our planet is a finite system and human development must not exceed this limit or it will collapse (Meadows, D. H., (1975). The book ‘doughnut economy’ takes this concept forward and seeks what organisations can do today to remain within the healthy ecological and social limits (Raworth, K., (2018).

This project is in collaboration with Livework. Their mission is to make people’s lives and work better. They are a leading service design consultancy that has over the last 20+ years developed building blocks for organisational change to serve their customers better with the help of design-led thinking. Looking to the future, they are conscious of the impact created by peoples’ current ways of living and working. To create a positive impact they want to help

people in their current and future client’s organisations to transform towards better sustainable futures. In light of this observation, the purpose of my graduation is to explore ‘**How can we use Livework’s approach for organisational change for Customer- Centricity for Sustainable Futures?’** (Refer Figure 1). Within the research phase of this project, a literature review was carried out focusing on two main themes: Livework’s approach for customer centricity and Sustainable futures. In the empirical research, key stakeholders from Livework and Sustainability leaders outside of Livework were interviewed. This resulted in filling in the gaps to understand what was similar in creating organisational change, what was unique about sustainable futures and what actions needed to be taken today to enable organisational change towards sustainable and thriving futures. This helped defined the strategic solution space and goals for the design phase.

The design phase further explores the proposed strategy and seeks how Livework can turn this vision into reality. By using a research-through-design process Livework is presented with an effective approach to help their clients on this journey. The end result is a tool for Livework that enables organisations to think in sustainable and thriving systems. The tool’s feasibility, viability, and desirability was evaluated with key stakeholders within organisations. This resulted in several concrete recommendations for Livework to implement and for future research.

Recently, there has been prolific literature emerging on the topic of sustainability and possible outcomes. Literature is abundant on why sustainable development is necessary, why organisations need to participate in this transition, and what can the organisations do during this transition. However, there is still not enough literature on how organisations can achieve this change. I hope that this graduation thesis report can add address this gap.

# Acknowledgment

Dear reader,

In front of you is my graduation thesis from the Master Strategic Product Design (SPD) at the Delft University of Technology. Looking back, I can now say that it has been quite a journey. I am happy to share my final work, which I could not have completed without the support of several people.

First and foremost, I would like to thank Livework for giving me the opportunity to pursue a topic that is important to me. Thank you, Anna, for making me feel a part of the team as much as possible and for your endless support throughout the project. I really valued our weekly check-in moments, in which you took the time to listen to my all thoughts and ideas while keeping me on track. Thank you, to all the Liveworkers, for your support and encouragement throughout the thesis. And thank you to all the people who participated in the interviews and the validation moments. Your contribution is extremely valuable.

In particular, I am very grateful for my supervisory team at TU, who continuously supported me during the past few months. Even though most of our meetings were online, I could always count on your presence. Thank you, Erik Jan, for your constructive feedback and calming words, which helped me gain confidence in my process

and gave me the strength to move forward. Thank you, Brian, for your input and insights.

I would like to thank my friends and family even though it has been more than two years since I have seen my family. During these crazy Covid times, you have always been there whenever I needed you. Thank you for enabling me to pursue my ambitions and believing in me. Thank you to my friends for bringing the laughter and giving your honest advice. Thank you, Jasmine, Fabrice, Pip and Poornashri, for proofreading my report. You were able to provide fruitful feedback that inspired me to do better. Thank you, Koen, for being there, helping me through some difficult times, cheering me up, and calming me down.

Finally, to the reader, this topic is very important to me as after years of working, I wanted to study again to learn how to bring change within organisations. This thesis gave me the opportunity to explore the topic in-depth, and I learned a lot. If you find sustainable futures and organisational change interesting, I hope this inspires you to pursue your own goals and ambition.

Enjoy reading!  
Priyanka Singh

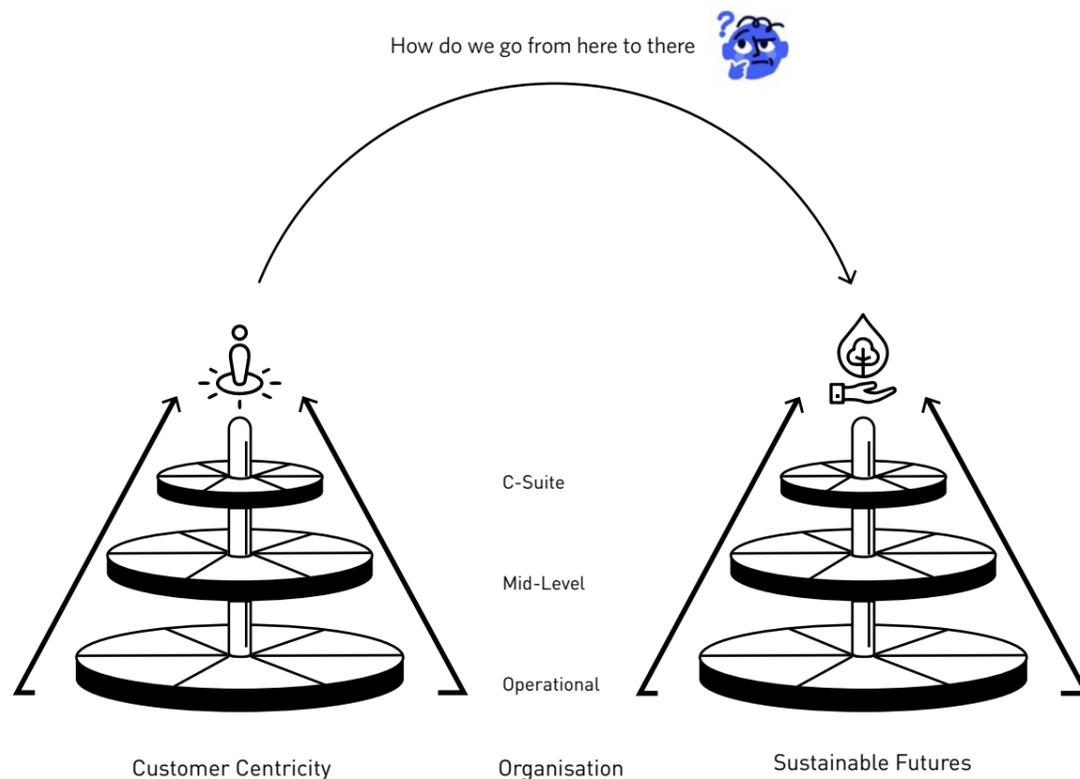


Figure 1: Livework's service architecture approach has created a central spine for all levels within the organisations to have one common goal: customer centricity

How can we create a central spine for all levels within the organisations to have a new common goal: sustainable futures?

# A little reading guide

A guide to make easier to navigate through the thesis report



## 01 New chapter

This thesis consists of eight main chapters. An orange page breaker is an indicator of the start of a new chapter. Each chapter has a descriptor to inform you of the contents of the chapter.

## 02 Key insight

Yellow boxes or yellow highlighted text in each chapter share the key take-aways or a key insight from the chapter.



## 03 Conclusion

Conclusion of each main chapter is at the end of the chapter in purple boxes. If you have limited time, I recommend going over this to get a quick overview of the chapters.



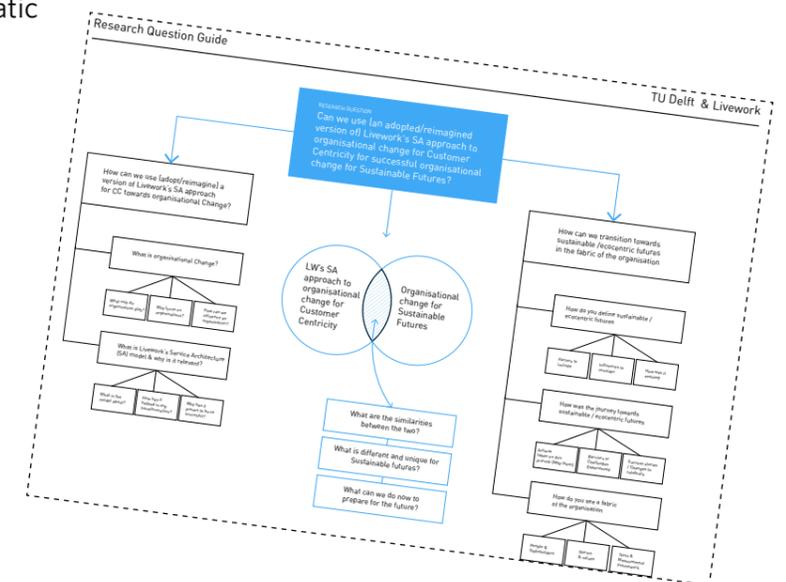
## 04 Glossary

Abbreviations or key terms used in this thesis report can be found here.

- LW: Livework
- SA: Service Architecture
- CL: Customer lifecycle.
- LSA: Livework's Service Architecture
- TU: Technical University, Delft
- Org.: Organisation
- SD: Service Design
- SPD: Strategic Product Design
- IDE: Industrial Design Engineering
- SF: Sustainable futures
- Liveworkers: Employees of Livework
- Unsustainability: not capable of being prolonged or continued
- Thrivability: It is the act of thriving or prospering.

## 05 Process box

Process or the approach are shown in these visuals, recognisable by the blue and white diagrammatic representation.



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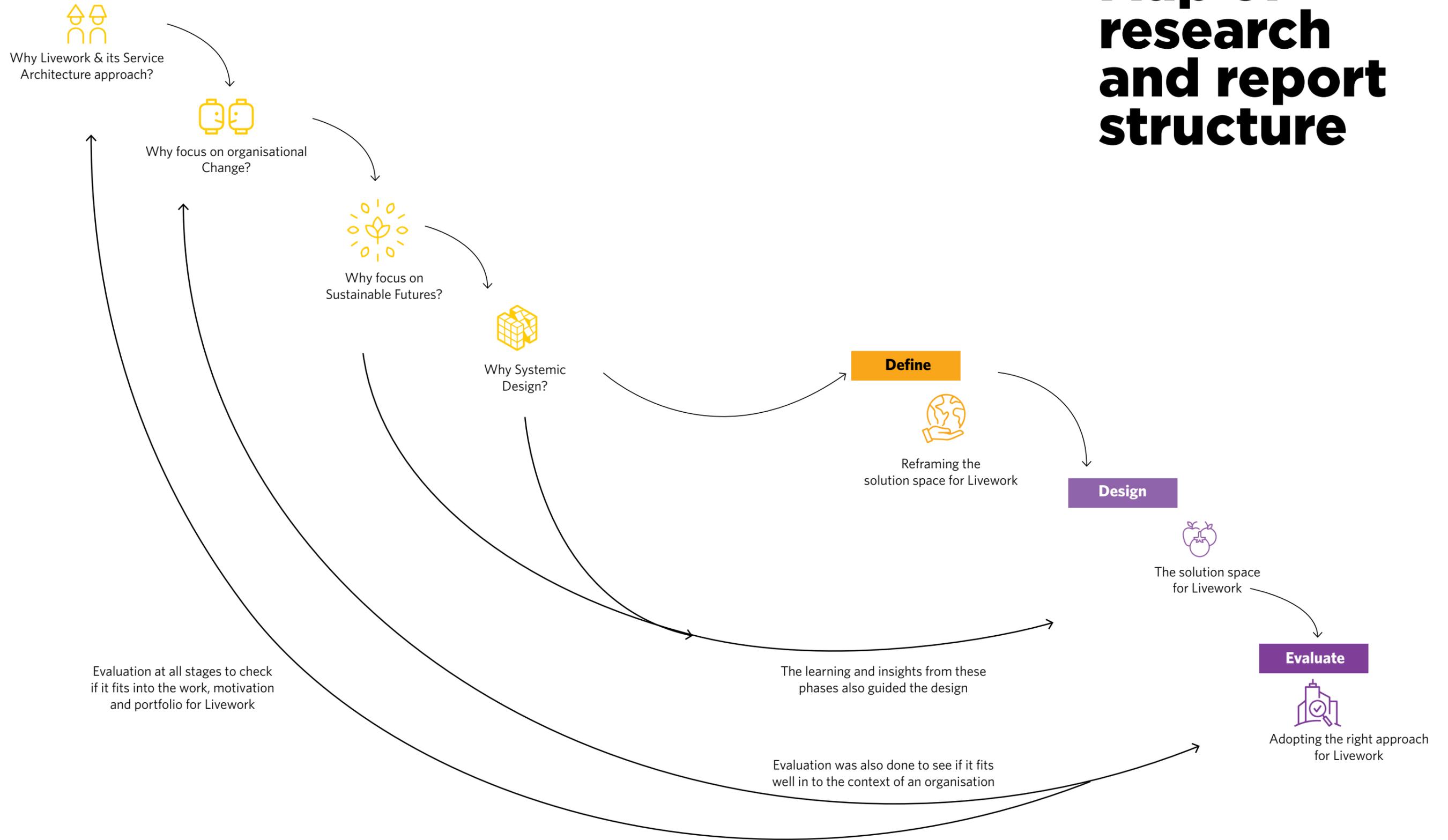
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**Understand**

# Map of research and report structure



Chapter 01

# Introduction

Sustainable futures: one of the critical topics of our time.

This chapter gives a brief introduction of the thesis, its scope and motivation for pursuing this topic. Lastly, it introduces the team of people involved and the approach adopted.

# Introduction

Sustainable futures one of the critical topic of our time.

## 1.1 MOTIVATION FOR THIS PROJECT :

*“In the face of growing sustainability challenges, pressure on businesses to decouple environmental impacts from growth is mounting”.*

(Prendeville, S., & Bocken, N., (2017).

Simply put, there is a significant gap between what our planet needs to survive and what we need to live on it. If we keep privileging our interests over the ones of our ecosystems, we will be responsible for irreversibly damaging our planet. Furthermore, we will be impacting the well-being and survival of our future generations. Acknowledging growing concerns for climate change, rising consumption patterns, increasing demands on resources, and threats to biodiversity, we need to take urgent action to create and implement a system that fosters organisational change for sustainability (Prendeville, S., & Bocken, N., (2017).

In their research, Boons & Freud (2013) indicate sustainable development is needed both in affluent and poorer countries. It is an emergency to implement systems that foster technological, social and organisational innovation for a sustainable future.

Corporations impact society and natural environments by using raw materials, lands, manufacturing processes, organisational structures, financial models, customer services, community actions and involvement. Thus, businesses and organisations can no longer ignore or refuse to address this challenge. External pressures like changing societal norms, laws, policies, and regulations such as carbon neutrality, Net positive, COP26 and UN Sustainable Development Goals are applied to organisations to devise better eco-social goals.

“The limits of growth” academic report discusses our planet as a finite system and alerts us to the fact that human development must not exceed the ecological and social limits, or the system will collapse (Meadows, D. H., (1975). Meadows report indicates that in system innovation, ‘leverage points’ are a source of power, as they offer insight on how and where to enact change most effectively within the system. ‘Leverage Points’ are points where a small change can produce significant changes in everything (Leverage points—places to intervene in a system, (2012). For sustainability transformation to happen, it is vital to find deeper leverage points in the ‘mental models’ that are a cause for unsustainability rather than focusing on superficial symptoms or one-off ‘events’. ‘Events’ are described as actions observable to people everyday such as recycled shoes made from seaweed, banning the use of plastic straws and so on. ‘Mental models’ support everything in the system through a set of beliefs, values and assumptions. The book ‘Doughnut Economy’ reviews the economic system and role of organisations within the healthy ecological and social limits (Raworth, K., (2018).

Ellis, D. C, et al., 2018, use the iceberg model to show that reacting to tip (event) on a surface level without finding out the root cause in the deeper structures will cause the buoyancy of the ice underneath to push up and recreate the tip (event) again (Figure 2). Therefore, the only way to create long-term sustained change is to find high leverage points and the root causes of unsustainability. For that reason, the thesis does not react to sustainable outcomes such as circularity or CO2 footprint. Instead, it goes deeper into the organisational fabric to find key leverage points to enable the transformation.

*“The limits of growth” discusses that our planet is a finite system and human development must not exceed this limit or it will collapse*

(Meadows, D.H., (1975).

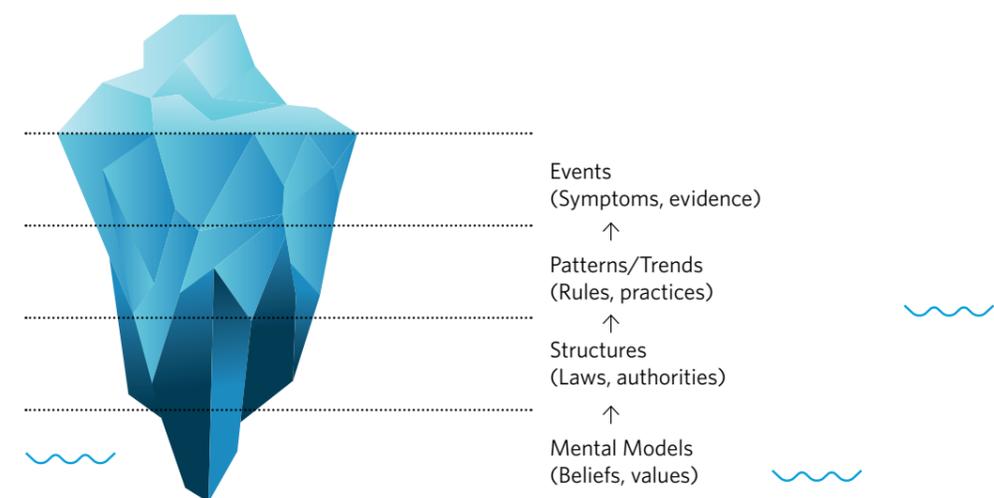


Figure 2: Iceberg Model of Analysis, Ellis D.C. & et al.. (2018)

Attempting only to solve a segment of the problem gives rise to bigger holistic and systemic problems that are embedded deep into the mental models and need a fresh outlook and mindset shift. It is hard to shift towards eco-societal goals because of the inability to move on from this fragmented approach and industrial worldview and oversimplified reductionist thinking. In turn, getting caught in a trap of greenwashing and rely on technological improvements. In other words, focusing on shallow leverage points and not on systemic problems make breaking the unsustainable patterns harder (Gibbons, L. V., (2020). **Furthermore, the challenge of this project is to find a solution space that can enable holistic and systemic thinking for eco-social goals and bring a restorative or regenerative change towards sustainability. 'Regenerative sustainability' is seen as the new wave of sustainability that adopts a holistic worldview for thriving and flourishing living systems by integrating fully into a system.**

Recently, there has been prolific literature emerging on sustainability and possible outcomes. Literature is abundant on why sustainable development is necessary, why organisations need to participate in this transition, and what organisations can do during this transition. **However, there is still not enough literature on how organisations can achieve this change.** Hopefully, this graduation report can address this gap.

### 1.2 COLLABORATION WITH LIVEWORK:

Livework's (LW) collaborated with TU, Delft, to explore solutions that will help them enable their current and future clients on this journey towards sustainable futures. Livework's mission is to make the lives and work of people better. Over the years with, design-led thinking and a human-centred approach, they have developed 'building blocks for organisational change towards customer centricity'. In the words of Livework's clients, the Livework 'customer lifecycle service architecture' approach has proven to be successful in embedding a change mindset towards customer centricity into the organisation's fabric. Showcasing that customer-centricity is a sum of parts of the organisation collectively. The ask is, can we use the same approach for sustainable futures?

Furthermore, Livework asks 'how can they help organisations transform towards sustainable futures' and 'what role can design play in facilitating this transition'? **Two areas of inquiry for Livework are to understand: 'What is the journey of transformation towards sustainable futures in an organisation?' And secondly,**

**'What is the sustainable futures direction suitable for Livework to enable this mindset change in organisations?'**

To summarise, **the focus of this graduation thesis is to see how can we use/adopt Livework's 'customer lifecycle service architecture' approach and reimagine it to help businesses transform towards sustainable futures.** Presently, the lens in the approach is 'customer centric', and aim to explore 'how to bring in the 'eco-centric lens''.

### 1.3 TEAM:

This thesis is in collaboration with the Technical University of Delft (TU) and Livework. The team comprises of diverse and key knowledge partners each bringing their own strength to the table.

Team from TU Delft,

Graduation chair **Prof. dr. Hultink, H.J.**

As one of the co-founders and first directors of the master program for SPD, Prof. dr. Hultink brought wisdom for the topic at hand and on how to manage the core challenges and maintain academic rigour during this exploratory graduation thesis.

Graduation mentor **Dr. Baldassarre, B.**

Brian Baldassare as a PhD candidate at the faculty of IDE, mentored in the area of sustainable development.

Livework mentor **Anna van der Togt**

As a company mentor, Anna connected me to key stakeholders internally at Livework and externally to sustainability leaders. She made me part of Livework's sustainability transition journey by adding me to their sustainability task force. Coming from the same Alma mater, she had similar values, and processes to follow. She made for a great sparring partner and granted me access to the necessary tools at Livework that would be helpful for my thesis.

Thus there were two stakeholders, my primary stakeholders were the team at TU and secondary stakeholders were the problem owners at Livework. As a project owner, I arranged alternating weekly meetings to review project progress, discuss roadblocks, and collectively find solutions.

#### 1.4 METHODOLOGY & APPROACH:

The thesis research is divided into two sections; One part focuses on Livework and its 'customer lifecycle service architecture' approach which enables organisational change towards customer centricity. The other part focuses on sustainable futures and organisation's journey towards sustainability. The goal is to find similarities between the two and identify unique features for sustainable futures. To know what needs to be done in the now to prepare for the future. Which approach suits Livework? (Figure 4)

The thesis will explore the four phases described in the double diamond approach (Figure 3):

Understand:

This phase is divided into two main areas of focus: 1. Livework and its customer service architecture approach; 2. Sustainable futures.

Part 1: Literature review and empirical research done on Livework and their customer lifecycle service architecture approach. Conversations with five key

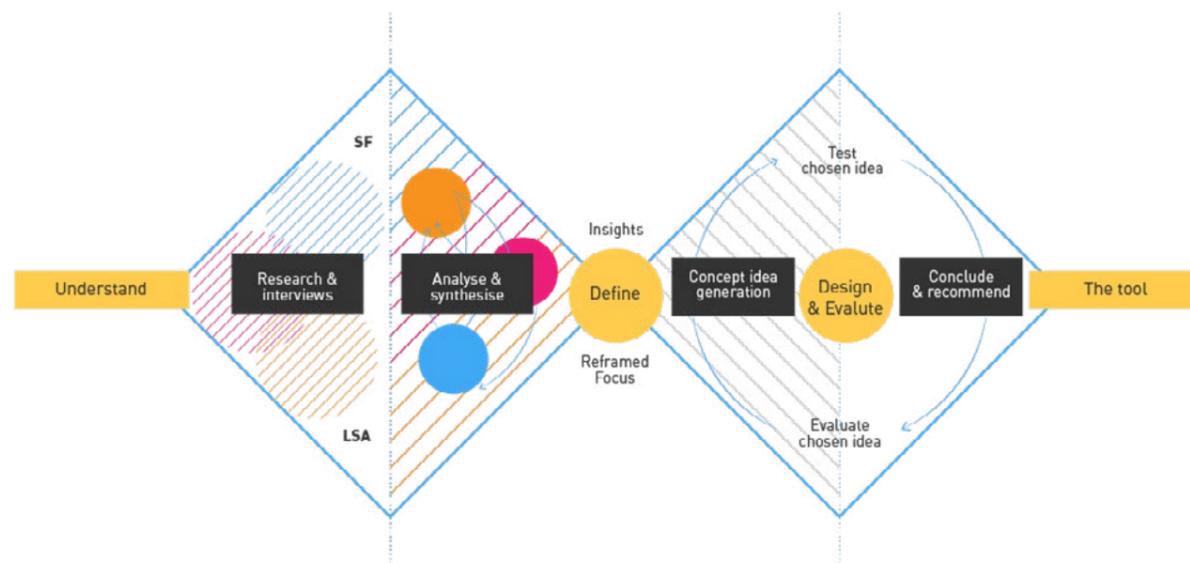


Figure 3: Double Diamond Approach

stakeholders within Livework who were responsible for the adoption of the approach, implementation with clients, and iteration of the approach over the years to make it uniquely Livework. And two of Livework's current clients, who have adopted this approach in the fabric of the organisation. Data gathered is analysed using affinity mapping to find the right clusters and prepare actionable takeaways for the next phase. As stated earlier, corporations impact society, and the natural environment, thus the literature review also focused on the need for organisational change and their role in sustainable futures.

Part 2: Literature review and external analysis are done to understand sustainable futures and the unique lens for sustainable futures? How is it different from customer centricity (CC)? What can we do today with organisations to prepare for sustainable futures? To know this better, sustainability leaders in five large scale organisations representing different industry verticals are approached to provide an industry agnostic picture of what the journey towards sustainable transformation looks like. These leaders have made successful strides in the transition towards sustainable futures. The aim is to learn their challenges and how they overcame those? Which factors did they define as crucial in making this transition successful and what is next on the cards for their organisations? Semi-structured qualitative interviews with these five industry leaders were coded line by line and analysed for actionable insights.

Define:

The outcome of actionable insights was converged into strategies and opportunity areas for Livework to adopt. Based on SWOT analysis (Refer to Appendix 8.7) the chosen opportunity is further detailed with a roadmap for the next decade for Livework. Defining goals and guiding principles are preliminary steps to design the solution space.

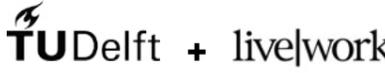
Design:

The outcomes of the define phase guided the design process to turn the strategy into reality. Diverging to explore ideas and concept generation for the proposed strategy (Refer to Appendix 8.8). Livework is presented with effective approaches and converge to choose one direction that Livework can adopt in the near future. The end result is a tool for Livework that enables organisations to think in sustainable and thriving systems.

Evaluate:

The tool is stress tested for feasibility, viability and desirability with three stakeholders in a workshop setting. (Refer to Appendix 8.9). Reviews are done through observations, note-taking, and over video/sound bites/photo capture. Feedback captured over short exit interviews. As a result several concrete recommendations for Livework were identified. Several exciting areas for future collaborations with TU are revealed.

- TO SUMMARISE:**
1. Sustainability requires urgent action to be taken by organisations.
  2. Planet is a finite system, and we cannot exceed, or it will collapse.
  3. Regenerative sustainability is the next wave of sustainability due to its holistic vision.
  4. This thesis does not react to the sustainable outcomes instead goes deeper into the organisational fabric to find key leverage points within the organisational system to enable the transformation.
  5. Thesis research is divided into two main parts: LSA & SF to find similarities and differences between the two.
  6. The focus of this graduation thesis is to create a tool to help Livework enable organisational transformation towards Sustainable Futures (SF)?

Collaboration between  


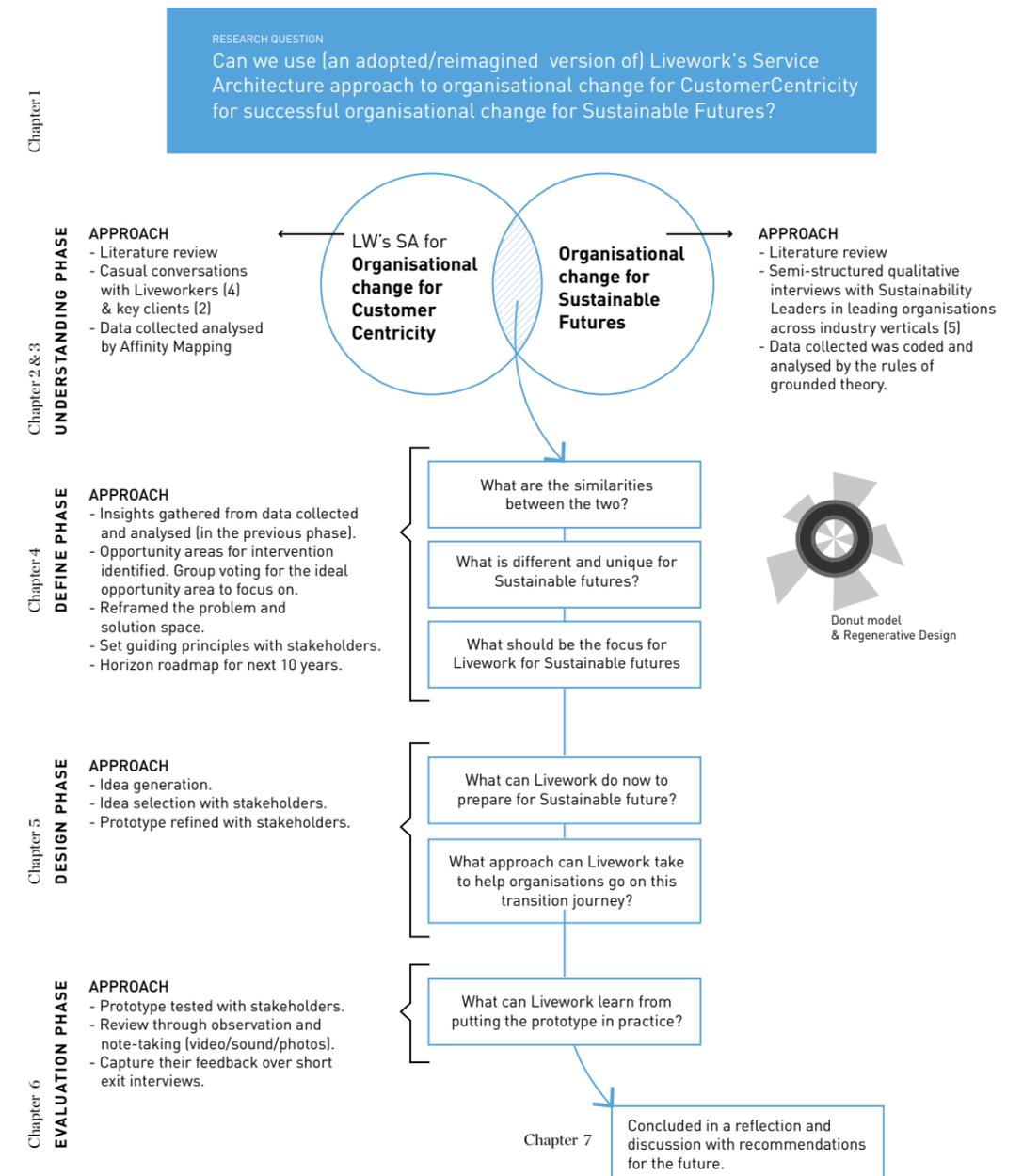


Figure 4: Approach + Chapter breakdown



Chapter 02

# Livework's approach

Approach and methodology adopted

This chapter shares the method and approach adopted for the first part of the research.

# Livework's approach

Approach and methodology adopted

## 2.1 LIVEWORK:

Over the years with, design-led thinking and a human-centred approach, Livework has developed industry agnostic 'building blocks for organisational change towards customer-centricity'. In the words of their clients, the 'customer lifecycle service architecture' (LSA) approach by Livework has proven to be successful in embedding a change mindset towards customer-centricity into the organisation's fabric. It creates a central spine showcasing that customer-centricity is a sum of parts of the organisation collectively (Figure 5). Since this approach has proven successful in embedding a change mindset towards customer-centricity in organisations, **there are three main questions to address: 1. What is the LSA approach? 2. How has it embedded the changed mindset in the organisation's fabric? And 3. Is it enough to create a change mindset towards sustainable futures in organisation's fabric?**

## 2.2 METHOD AND APPROACH:

Extensive desk research is done to understand the context and background. To avoid one-sided perspective, informal conversation are conducted **with five key stakeholders within Livework**, who are responsible for the adoption, implementation, and iteration of Livework's 'customer lifecycle service architecture' (LSA) approach over the years. Additionally to test Livework's claim of the approach, **two of Livework's current clients, from different industry verticals who have adopted this approach in the organisation's fabric, share why it is successful.** Data gathered from the informal conversation is analysed using affinity mapping to find the key clusters and prepare actionable takeaways for the next phase. **The aim is to reveal the strengths and weaknesses of the LSA approach and review if it can be used for sustainable futures.**

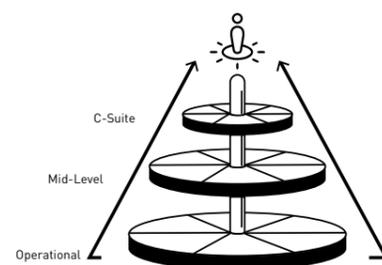


Figure 5: Livework's service architecture creates a central spine showcasing that customer-centricity is a sum of parts of the organisation collectively.

## 2.3 SERVICE DESIGN:

Before we dive deeper in to service architecture it is good to know what is 'Service design'? 'Service design is the process of planning and organizing people, technology and material components to enhance the quality of interactions between customers and providers.' (Aurich, J. C., Mannweiler, C., & Schweitzer, E., (2010).

***"Service-dominant logic is an ontology; i.e., a way of looking at the world, a belief that humans and other species exist to serve one another"***.

(Lusch, R.F., Nambisan, S., (2017).

Service design is at the heart of business innovation (Bocken, & et al., (2019)). It involves finding solutions to a given problem through the lens of an experience economy, which creates and unlocks value for every stakeholder in the value chain (Stickdorn, A., Schneider, M., J., Andrews, K., & Lawrence (2011). Stickdorn & et al., 2011, describes it as an iterative process of designing, evaluating, measuring and redesigning. In a paper, Prendeville & et al., (2017) draw a conceptual links between sustainable businesses and service design. **The key similarities were that they both enable decision making and that both adopt a systemic approach to tackle wicked problems involving multiple needs and contexts within a system.**

On the Livework website service design is defined as ***'a service design approach helps organisations execute new ideas more effectively, address customer expectations, break down silos and create business value.'***

Designing for these functional service interactions involves designers translating intangible experiences into tangible forms, through methods such as personas, customer journey maps, service blueprints, storyboards, scenarios and experience prototypes (Yu, E., & Sangiorgi, D., (2018). Aurich & et.al., (2010), suggest **Service design can help foster connection and improve working of an entire system** and turn intangible, non-financial attributes to a service offering. A service design approach can leverage human centred thinking and disrupt traditional markets and lead to innovative and effective means to differentiate and amp up competitiveness (Aurich, J. C., Mannweiler, C., & Schweitzer, E., (2010). **However, the value of adoption service design as an approach for sustainable futures has not yet been explored in depth.**

## 2.4 INTRODUCTION TO SERVICE ARCHITECTURE

***Vision strategy in an organisation is critical; however, it is the service architecture that gives it grounding.***

(Liz, Head of Design at Livework)

One of the main objectives of service architecture is to **create the 'big picture,'** which will act as an overall guide to an enterprise or project and provide a simple view of how the organisation, or project, splits its capabilities into services (Jones, S., & Morris, M., (2005). In Morris & Jones words, a service architecture is an enterprise or project's 'service discovery' approach. The objective is to re-engineer its processes in the first few days or to deliver.

A service architecture covers four significant steps. One is that it defines what the scope of services are? Defines who uses the services? Highlights why one service relates to another? How do they coordinate and overviews how they are implemented? It does not discuss how service architecture can be delivered (Jones, S., & Morris, M., (2005).

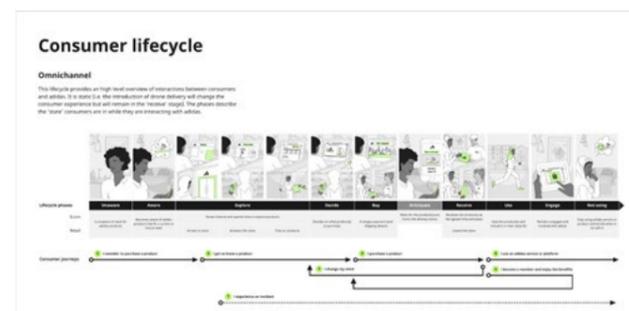


Figure 6: Livework's Service architecture creates a big picture of the business.

In Morris & Jones, (2005) words, this big picture becomes an aid or a tool to assess and understand how change requests will be prioritized, commissioned and delivered. Stakeholders use the big picture to have a common overview of the 'what' and 'why', it is down to the various departments to address the most effective 'how'. One of the key reasons why it does not start with 'how' as the how or the 'process based' discovery tends to 'drill-down' very early. Process based discovery has a tendency to create 'silos' of services rather than find common ground between processes. Thus the approach of service architecture starts with the 'what' and at the top of the organisation, as organisations work 'top-down'. While this may not be a novel approach, nonetheless, **starting at the top helps bring flexibility, visibility and helps reduce clutter by using the organisational functions as its basis.**

In Morris & Jones, (2005) paper service architecture's levels are as follows:

1. Level 0 (L0): It starts with a level 0 picture. **It is the bird's eye view of the domain in discussion.** It could also be used to encompass a whole company too. All of these services are core to the business under consideration. Level 0 details intent of the project and sets it in context.
2. Level 1 (L1): Here Level 0 is composed into finer details of services. Level 1 can continue to further levels 2,3,4 etc.. These can be the actual day-to-day activities in a given area. **Level 1 indicates the actual work to be done and how it is connected.** Level 1 is more complex than Level 0.
3. Support Services: These services are not core to the general business or problem at hand instead provide support for the overall environment to function properly.
4. Technical Services: These are the services needed for the IT system to deliver for instance, a hosting provider.
5. Actor: A consumer of these services (person, system or service).

**Information needed to create a service architecture collected through 'collaborative working' and people who understand how the business or project functions are the key resource here.** (Jones, S., & Morris, M., (2005). Morris & et al. (2005), recommend **interviews and workshops to create a common dialogue between various departments and groups to decide on the boundaries that work across the business.** The service architecture should be available to all in the organisation via a collaborative environment with quick and easy access. Morris & et al. (2005), advise that in the event of mergers or acquisitions, service architecture can be used for comparison of established services between the two organisations to assess and note the compatibility of those and perhaps approach them as a common task. The architecture is a living artefact that is reviewed regularly.

## 2.5 SERVICE ARCHITECTURE AT LIVEWORK:

***In a nutshell, Livework's Customer Lifecycle Service Architecture is a window into a business with an overview of it's functions and how it all comes together to serve one goal.***

(Angela, London Studio Director at Livework)

- To address the questions at the start of the chapter, 1. What is the LSA approach?
2. How has it embedded the changed mindset in the organisation's fabric? And
  3. Is it enough to create a change mindset towards sustainable futures in the organisation's fabric? Five informal interviews are conducted within Livework, who are responsible for the adopting, implementation, and iterating Livework's

'customer lifecycle service architecture' (LSA) approach (Figure 6) over the years. Additionally, to test Livework's claim of the approach, two of Livework's current clients from different industry verticals who have adopted this approach in the organisation's fabric, are interviewed. To maintain integrity of the research and get an unbiased opinion, the conversations are centred around four main focus points, and these were posed to all interviewees. (Interview guide in Appendix 8.4)

The four main focus points are:

- Focus 1:** Understand Livework's service architecture approach to customer centricity, currently.
- Focus 2:** Reflecting on the past understanding Livework's approach towards change mindset in organisations.
- Focus 3:** A walkthrough of the Livework service architecture approach.
- Focus 4:** Looking to the future and what's next in the pipeline.

Affinity Mapping as a research technique is applied to organise participants' responses across themes and into groups based on their relationships to make sense of all this data collected. By doing this immersive exercise, **key insights emerged that answer the main questions stated at the start of the chapter.**

## 2.6 FINDINGS AND INSIGHTS

After analysing and synthesising participants' responses across focus points (Figure 7) with stakeholders at Livework, it became apparent that Livework's customer lifecycle service architecture is rigorously tested with clients in real-time projects by the directors, heads of design and employees of Livework. They have embedded the artefact in their day-to-day design approach and way of working. This approach now sits in one of the 'building blocks for organisational change towards customer-centricity' as a design approach.

Insights that emerged from the analysis reveal:

**1. LSA can bring organisational change and transformation through co-creation and service design-led approach. It is human centric as design helps you bring the human perspective. Livework brings the human side of the story.** This model is great on how to permeate a vision into the day-to-day ways of working of the organisational team and show them a common goal and how their roles are interconnected and interdependent. **This approach is industry agnostic and adaptable to the organisation's context. It helps Livework understand a business from the outside. It helps organisations in doing things with intention and making choices with purpose.**

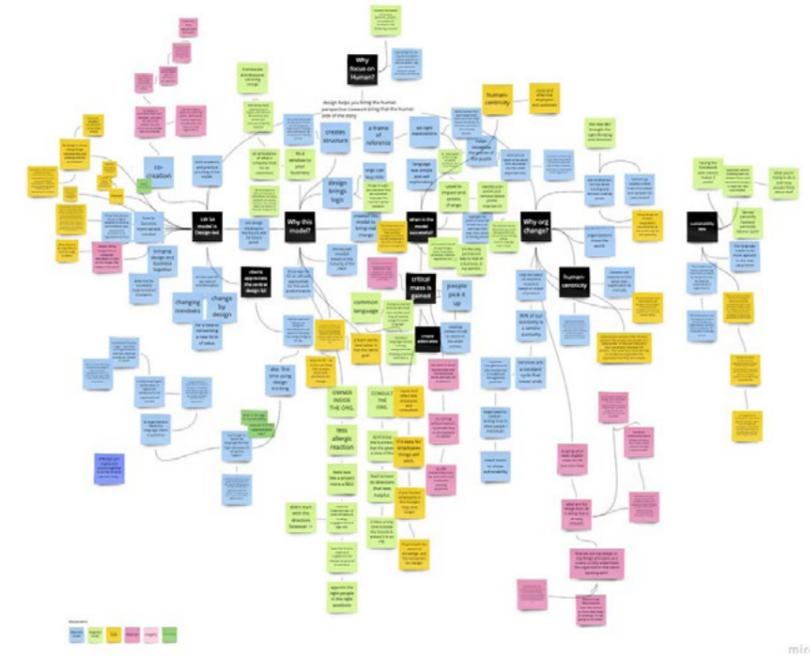


Figure 7: Affinity mapping of conversation over four themes.

KEY INSIGHT: Service Architecture

**Livework's service architecture** defines key interactions businesses have with their customers. Gives a framework to understand, evaluate and measure customer experience across the whole service lifecycle.

A **Single shared view**, common language

B **Joined-up managed performance**

C **Joined-up prioritized investments**

D **Aligned governance & oversight**

*It helps organisations see the big picture as customers see it and offers tools to design every little interaction between customers and the entire organisation.*

(Matthias, Adidas)

2. The LW architecture artefact breaks silos and gives an end-to-end picture of the organisation's business. **Creates an overview of the big picture and how the people fit into it.** It does not exclude the people rather involves them and gives them a perspective of how their role contributes to the overall business and the goal. In turn creates a framework and a frame of reference. **Organisations are a complex ecosystem of humans** (partners, people, and platforms) involved in delivering a service. **Livework has always looked at humans** within the organisation (employees, leaders etc.) and outside the organisation (customers) involved in delivering a service. **Humans within and outside the organisation have a cause and effect relationship.** If the employees are involved in the big picture, they will adopt the change faster in the journey towards a changed mindset. **Employees are both a source of knowledge and a mechanism for change.** It is vital to create advocates for long-term adoption and implementation of services. If a **critical mass of people adopt the change in their ways of working, it will be implemented and sustained for a longer period.** With internal alignment, buy-in and co-operation, the quality of the service to the customer will also proportionately improve.

*This model has both academic and in practice proofing. It has endured and lasted technological pressures and restructuring in organisations. It is one of the permanent ways to look at your business.*

(Angela, London Studio Director at Livework) on her experience with British Gas.

3. The artefact creates a common language that is simple and self-explanatory. Making it easier for organisation to have one truth. **A common language makes it easier to orchestrate things towards a common goal.**

*Customer experience is the sum of the parts of the organisation. It's not just a line on the service architecture, it is a conversation between the departments. What are we trying to achieve?*

(Thomas, JPMorgan)

4. LW service architecture is often used for change assessments by Liveworkers in organisations. It helps businesses jointly decide based on the end goal which projects to prioritize for investments and funding. **It helps set the right expectations and aids in prioritization and successful implementation of the services.**

*The design of the service architecture allowed JPMorgan to review the outcome of the service, what were the pain points, and why? Which services were related to each other and how? More importantly, it grounded where the money was worth putting in.*

(Thomas, JPMorgan)

5. It also helps Livework scope the work in new business development by **pinpointing where the pain**

KEY INSIGHT: Service Architecture



points are, thus what parts need to be addressed first and the dependencies for them to be implemented well.

6. Measurement framework is a significant component of this approach for aligned governance and oversight and successful implementation of programs.

7. Liveworker's responses reveal that **the design-led approach is unique to LW.** While design brings its own logic Livework aligns it seamlessly with the business operation to enable easier integration.

8. **Liveworker's responses disclose that the key stakeholders work collaboratively in a workshop setting to understand a business's context and background.** Working co-creatively involves experts on the subject to collectively find custom-fitted solutions. Involving people in a workshop brings ownership, alignment, buy-in, accountability and long-term approach adoption.

9. Liveworker's and clients believe that **'proof stories' is an effective way to make the shift feel believable and achievable for people** (employees, stakeholders, investors etc.).

In conclusion, after reviewing the insights, it answers the second question on 'how' Livework applied this approach to create change mindsets towards customer-centricity in the organisation's fabric. **The third question is it enough to create a change mindset towards sustainable futures in the organisation's fabric?** Well, given the evidence the way it is used now, it has certainly created a mindset for higher adoption of customer centricity. **However, the lens in the LSA approach is 'customer-centric', and the challenge is to explore 'how to bring in the 'eco-centric lens'.**

**TO SUMMARISE:**

1. This chapter uncovers service architecture as an artefact and how Livework has adopted this approach and made it its own.
2. This chapter also reveals the strengths and weaknesses of the approach. The biggest weakness is that the lens of the approach is customer-centric, and the aim is to explore how to make it ecocentric.
3. LSA creates an overview of the big picture of the business and how people fit into it. LW brings service-led design and human perspective to the forefront as their unique strength.
5. This approach is industry agnostic and adaptable. It allows LW to understand the business from the outside and helps the business to make decisions with purpose on the inside.
6. Stakeholders collaboratively work in a workshop setting.



Chapter 03

# Sustainable futures

Approach and methodology adopted

This chapter shares the method and approach adopted for the second part of the research.

# Sustainable futures

Approach and methodology adopted

The next challenge of the research is to understand: 1. What is sustainability and sustainable development? 2. Why focus on organisations' fabric? 3. How have organisations made successful strides towards sustainable futures?

## 3.1 SUSTAINABILITY & SUSTAINABLE DEVELOPMENT

*Brundtland, 1987 framed, "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."*

(Baldassarre, B., Calabretta, G., Bocken, N., Diehl, J. C., & Keskin, D., (2019).

As per the Earth's geological system, we are in the Anthropocene epoch, where humans constitute the dominant driver of change to the Earth's System (Crutzen, P. J., (2021). In the Anthropocentric view, the focus is mainly on 'how to enable continued economic development within a context of finite resources' (Gibbons, L. V., (2020). Gibbons, in his paper, refers to this as "conventional sustainability", which recognises the unchecked use and or destruction of environmental resources harmful for continued human existence. Diesendorf acknowledges that human societies have come a long way in technological advancements over the last two centuries. Despite our aircraft, fast-paced cars, high-rises and our digital advancements, our survival is still dependent on Earth's natural systems (Diesendorf, M., (2001).

"The limits of growth" academic report discusses that our planet is a finite system and alerts us to the fact that human development must not exceed the ecological and social limits, or the system will collapse (Meadows, D. H., (1975). Meadows report indicates that in system innovation, 'leverage points' are a source of power, as they offer insight on how and where to enact change most effectively within the

system. 'Leverage Points' are points where a small change can produce significant changes in everything. Meadows report also discusses that for sustainability transformation to happen, it is vital to find deeper leverage points in the 'mental models', that are a cause for unsustainability rather than focusing on superficial symptoms or one-off 'events'. 'Events' are described as actions observable to people everyday, such as, recycled shoes made from seaweed, banning the use of plastic straws and so on. 'Mental models' support everything in the system through a set of beliefs, values and assumptions (Ellis, D. C., & Black, C. N., (2018).

The book 'Doughnut Economy' maps the nine planetary boundaries (Rockström & et al., (2017) and twelve dimensions of social foundation derived from internationally decided Sustainable Development Goals (Izzo, M. F., (2018), and seeks what businesses and economic prosperity can look like within the healthy limits of ecological and social boundaries (Figure 8). Raworth makes a case to push organisational models towards regenerative, distributive and collective thinking that aims to thrive over growth.(Raworth, K., (2018). Kate Raworth's book 'Doughnut Economics' mentions that degenerative design is a one-way system against Earth's life process and is destroying the planet's living systems. Contrary to the promise of the late 20th-century economic growth will not fix the mess; instead, there is a need to make economies regenerative by design.

*"The limits of growth" discusses that our planet is a finite system and human development must not exceed this limit or it will collapse*

(Meadows, D.H., (1975).

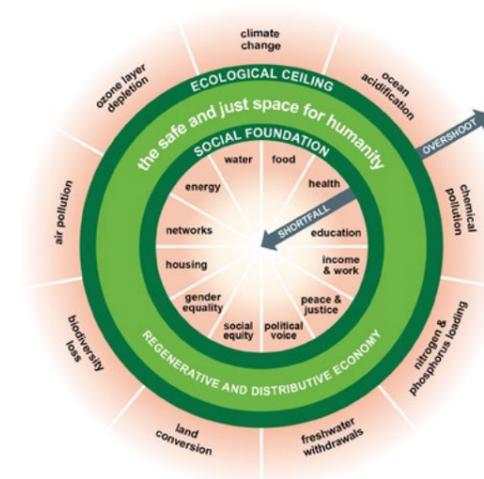


Figure 8: The Doughnut model mapping social and planetary boundaries, Doughnut economics | Kate Raworth (Book)

### 3.2 CONVENTIONAL VS REGENERATIVE SUSTAINABILITY

Gibbons paper stipulates that “Conventional sustainability” has given way to “Contemporary sustainability” since 1999, with the birth of the study of science behind sustainable development has added consideration towards ecosystem viability, social justice, social-ecological and social-ecological-technical systems, satisfying livelihoods.

Gibbons (2020) observes that while ‘contemporary sustainability’ can be seen as an improvement on ‘conventional sustainability’, it is still predominantly anthropocentric focused and addresses the symptoms rather than the cause of unsustainability, thus remaining shallow in its leverage points and getting caught in traps of greenwashing, and relying on technological improvements, an inability to move beyond the mechanistic worldview.

*Regenerative sustainability sees humans and the rest of life as one, adopting a holistic vision with deeper leverage points and an aspiration to manifest thriving and flourishing living systems in a fully integrated individual-to-global system.*

(Gibbons, L. V., (2020).

On the other hand, “Regenerative sustainability” has been called the next wave of sustainability. It focuses on transforming worldviews, mental models and systemic thinking that runs deep and addresses the deeper causes for unsustainability. Regenerative sustainability sees humans and the rest of life as one, adopting a holistic vision with deeper leverage points and an aspiration to manifest thriving and flourishing living systems in a fully integrated individual-to-global system. (Gibbons, L. V., (2020). Places and systems are not static thus regenerative sustainability addresses living systems in a transitory state along a continuum of health and complexity and not as “problems” and “solutions”

This section of the chapter sums up the importance of Sustainability and Sustainable Development and why ‘Regenerative Sustainability’ is the next wave of sustainability.

### 3.3 ORGANISATIONAL CHANGE FOR SUSTAINABLE FUTURES (SF)

*“Believe it or not, these organisations move the world. JPMorgan constructs the very planning of our financial sector, globally. They*

*move masses, money, ideas, they are the regime period. Now you might like it or not, but they are.”*

(Marzia, Design Director at Livework)

One of my research questions and conversations’ focus points is to understand: 1. Why should the focus be on organisations for sustainable futures? 2. What does the fabric of an organisation mean? To arrive at a well-researched answer, desk research is accompanied by conversations with key stakeholders at Livework and their clients.

### 3.4 FOCUS ON ORGANISATIONAL CHANGE

Evolving from the triple bottom line, business, people, and profit are seen as three separate entities and now, businesses are seen as a subset of societies and of the planet (Diesendorf, M., (2001). External pressures like changing societal norms, laws, policies, and regulations such as carbon neutrality, Net positive, COP26 and UN Sustainable Development Goals are applied to organisations to devise better eco-social goals (Figure 9).

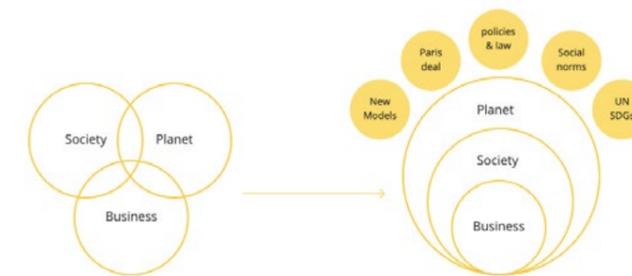


Figure 9: Changing roles of organisations

The book ‘Reinventing Organisations’ by Frederic Laloux, states that organisations are participating in a system that is polluting the atmosphere, water, land, destroying biodiversity, and exhausting resources at a frightening pace. Resources should be preserved, nurtured and regenerated with future generations in mind. It is time to imagine an ‘evolutionary’ worldview.

*I think organisations can drive change. And you can wait for the governments but you can also start your own change. I have way more impact with the company. So I think if every company does their part, we can have a huge impact.*

(Lise, Sustainability Manager at Bugaboo)

Frederic Laloux's 'evolutionary' worldview is where long term thinking is propagated, and people are seen as more than just a number. Unsustainable structures that disregard living systems are broken. **To make this a reality, a new organisational structure will need to come in place with different metrics for budgets and targets, for decision making and investments and staff functions.** This new vision and mission will impact the nature of projects, teams and the impact created. This would also mean imagining the kind of services and tools to be designed in order to enable this transformation (Frederic Laloux - reinventing organisations- home. (n.d.).

### 3.5 FABRIC OF AN ORGANISATION

**An organisational system covers the core elements of the organisation at hand:** its people with their norms, values, beliefs and behavioural patterns; its structures, which includes procedures, hierarchies and tasks; its resources and an organisation's vision, which gives purpose and guidance for how resources might or might not be used. We argue that services cannot be isolated from these elements (Sangiorgi, D., & Junginger, S., (2015).

**KEY INSIGHT** A key insight that emerged from the definition is that the area of influence of the organisation's fabric encompasses and dictates the use of resources, ways of working, structures and hierarchies over both the product and customer lifecycle (Figure 10). **Thus it is important to focus on the organisations' fabric for sustainable futures.**

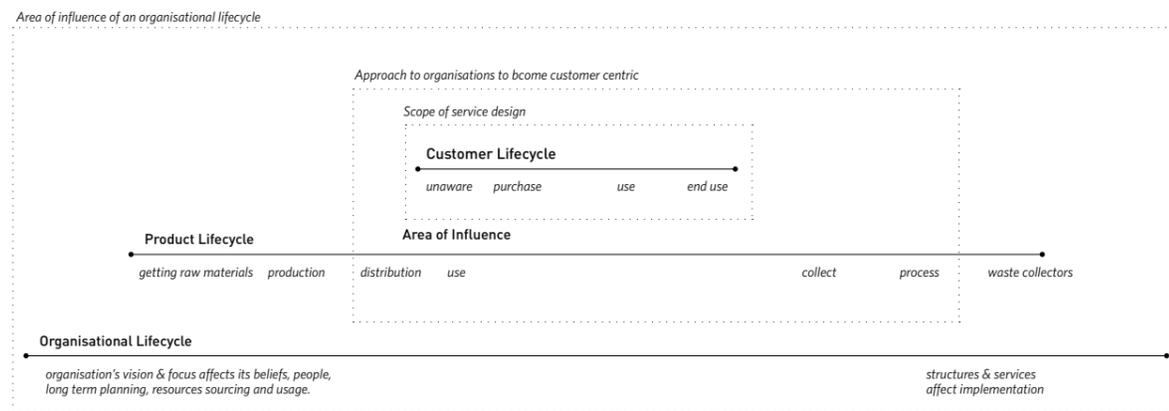


Figure 10: A diagram to explain why it's important to impact organisations' fabric.

### 3.6 METHODOLOGY AND APPROACH:

To answer the research question 'how have organisations made successful strides towards sustainable futures?' **Five sustainability leaders in large scale organisations from different industry verticals are approached to provide an industry-agnostic picture of the journey towards sustainable futures.** The interviewees are from **Heineken, Marks and Spencers (M&S), Bugaboo, ING and Erasmus MC.** They are sampled based on the fact that they had made successful strides in sustainability in their organisation, the scale & nature of the organisation, and their availability within the given time for this project. (The fact sheet to invite leaders for interviews can be found in Appendix 8.3) Semi-structured qualitative interviews is conducted to probe deeper into the latent and tacit thinking (Figure 11). Interviewing technique in use is 'the path of expression' from the book 'Convivial Toolbox' (Sanders, E. B.-N., & Stappers, P. J., (2012). **Interviews are coded line by line and analysed for actionable and rich insights. The results, findings and insights are mapped to show the phases, steps, challenges, objectives and actions of an organisation's fabric transitioning towards sustainable futures.**



Figure 11: The path of expression, from the book 'Convivial Toolbox'.

**The interviews aim is to learn about four main focus points, which are:**

- Focus 1:** Understand the current mindset of the organisation towards sustainable futures.
- Focus 2:** Reflect on the journey of successfully embedding sustainable futures mindset into the organisations' fabric.
- Focus 3:** During this journey what were the challenges/ barriers faced by the organisation and how did they overcome them?
- Focus 4:** Looking to the future for their organisation, what is next in the pipeline?

Due to Covid, most of the interviews were online with prep work (Figure 12). To keep online interviews engaging, **interviewees had two tasks: One**, they had to come prepared to the interview with their top three challenges. **Two**, during the interview, on focus points 2&3, interviewees mapped their organisation's journey towards sustainable futures across time and depth of change on a Miro Board

activity (See raw data of Miro boards in Appendix 8.5). Depth of change ranged from lowest to deepest. The lowest is an addition of a measuring framework or tools. The deepest is embedding sustainable thinking in structures and the vision & mission statement. The exercises got good feedback. It made the interviewees open about the connections between different events and how it helped or hindered the speed and smoothness with which the change was embedded. (Interview guide and raw data of interviewees is in Appendix 8.5)

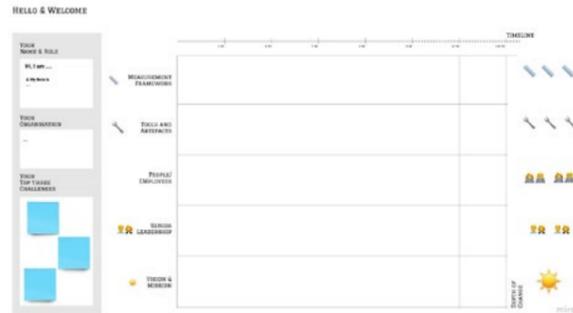


Figure 12: Prep work for interview. Miro board activity: 1. Write down top three challenges. 2. Map the journey across time and depth of change.

### 3.7 FINDINGS AND INSIGHTS

Analysing the interviews responses, the organisation's change journey towards sustainable futures (SF) becomes clearer. The journey is spread over 'before', 'begin', 'during', 'after and 'evolve' stages (Figure 13).

The 'before' stage has two phases: 'unaware' and 'aware'.

The 'begin' state has two phases: 'decide to act', and 'explore approaches' and

The 'during' stage has six phases: 'do an organisational assessment', 'pick a focus', 'define goals', 'start a roll out', 'evaluate its progress' and 'adopt the approach'.

The 'evolve' stage reflect on the previous phases.

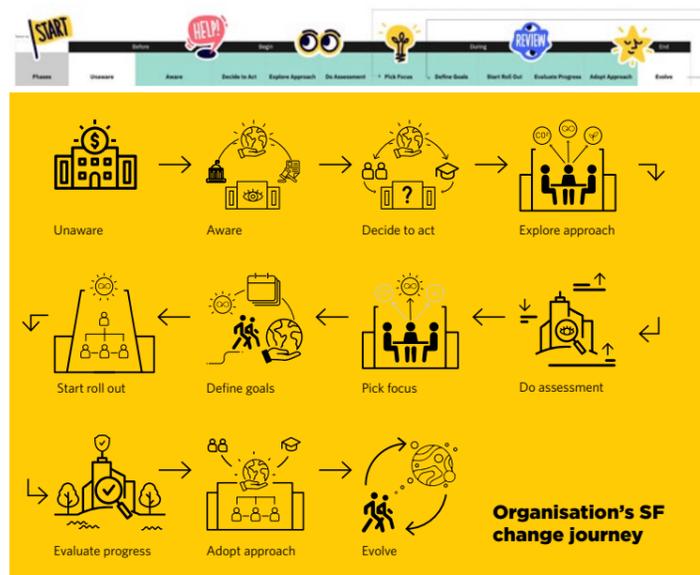


Figure 13: Stages and phases of a organisation's change journey towards sustainable futures.

### ORGANISATION SUSTAINABLE FUTURE CHANGE JOURNEY



Stage & Phase	Before   Unaware
Steps (t.b.d./O)*	When the organisation is unaware it is business as usual. Organisation's vision, protocol and funding is all geared towards existing initiatives.
External Input	Changing regulations and pressures from laws and policies on ways-of-working, and prevailing social norms add to the pressure to do better.
Objective & actions (t.b.d./O)*	
Emotional need (of the org.)	Organisations want to feel good about meeting expectations of the prevailing societal and economic norms.
Quote	"So initially, back 15-20 years, it was much simpler, it was just about reducing the physical footprint of Marks and Spencers"

(t.b.d. by Org.)\* to be done by the organisation



Stage & Phase	Before   Aware
Steps (t.b.d./O)*	Awareness creation in the organisation is provoked by external triggers and internal agendas such as saving costs. People working within the organisation raise this awareness. While the motivation to change might be emerging the path to it is fuzzy and vague. Thus it features very low on prioritisation.
External Input	Changing laws, policies, and regulations on a local or global scale directly impacts an organisation's working. Media Attention and change in prevailing consensus & social norms of expectation from a business. Environmental agreements such as Greenpeace agreement, Paris Climate agreement, Cop26, UN SDG's, scope 3 emissions so on and so forth.
Objective & actions (t.b.d./O)*	An organisation needs a plan to meet its objectives and stay relevant in the future. Actions taken by the organisation: Organisations seek leadership in the field, an existing playbook/rulebook on how to proceed with sustainability. Team members within the organisation who are an enthusiast on the topic raise awareness among employees and senior leadership through creative techniques such as movies, workshops, & talks from experts.
Emotional need (of the org.)	Feel comfortable in becoming aware of the topic and the role an organisation can play.
Quote	"And change is always a bit scary"

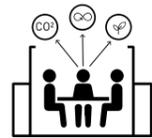
(t.b.d. by Org.)\* to be done by the organisation



Decide to act

<b>Stage &amp; Phase</b>	Begin   Decide to Act
<b>Steps (t.b.d./O)*</b>	<p>Organisation decides to act and come up with a new approach for the organisation. They reach out to experts and knowledge partners to learn about the possibilities for the organisation and eventually find a focus relevant for the organisation.</p> <p>Internally the organisation has key concerns, such as 'How these changes will affect their Profit &amp; Loss?', 'What are the long terms risks on cost and survival of the organisation?', 'How will they create change management within the organisation?', 'How to fund and prioritise current initiatives over what's to come?', 'How to manage conflict and challenges within the organisation over this topic?'</p>
<b>External Input</b>	Changing laws, policies, and regulations on a local or global scale directly impacts an organisation's working.
<b>Objective &amp; actions (t.b.d./O)*</b>	<p>Organisation needs a plan that can evolve with changing times. Build and maintain the right mindset among the senior leadership.</p> <p><b>Actions taken by the organisation: Organisations seek the right external and internal knowledge partners to point them in the right direction.</b></p>
<b>Emotional need (of the org.)</b>	Feel good about making a positive impact in the near future.
<b>Quote</b>	"Money is a big change maker"

(t.b.d. by Org.)\* to be done by the organisation

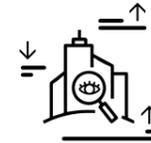


Explore approach

<b>Stage &amp; Phase</b>	Begin   Explore approach
<b>Steps (t.b.d./O)*</b>	<p>Organisation is working to <b>create a change mindset</b> among the key stakeholders. <b>Create awareness of potential and opportunities out there to find the best fit for the organisation.</b></p> <p>Internal challenges: 'How does this affect the direction of the company?', 'What is the organisational role in these big shifts?', 'What value do the organisation want to stand for?', 'Which regulation, policy or goal is relevant to organisations and its survival?'</p>
<b>External Input</b>	Ignoring change is no longer an option. Technological advancements in data and digitisation bring forth data that needs to be addressed for the planet's survival and hence the organisation. Survival of the business long term. Changing priorities in trends. Need to adhere to regulations
<b>Objective &amp; actions (t.b.d./O)*</b>	<p>Need to be bold and visionary. Evolve the mindsets at a senior leadership level to get the right support and funding to make this change across the organisation.</p> <p><b>Actions taken by the organisation:</b> Using design techniques such as co-creation sessions with knowledge partners, such as NGOs, Academic institutions, thought leaders and the senior leadership of the organisation explore and choose outcomes. Collaboratively work with internal and external stakeholders like value chain partners using proof stories to inspire and engage people and how they add to the big picture.</p>
<b>Emotional need (of the org.)</b>	Feel confident about choosing a direction.

<b>Quote</b>	"when you have strong local leadership, and where the leader said, I'm going to really embed sustainability in my local operating company, strategy for the coming three to five years. Then the vehicle starts to right to turn, right."
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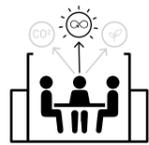
(t.b.d. by Org.)\* to be done by the organisation



Assessment

<b>Stage &amp; Phase</b>	During   Assessment
<b>Steps (t.b.d./O)*</b>	<p>A thorough <b>internal environmental &amp; social material impact assessment</b> is done. A review of internal capabilities, initiatives, and value chain is done. How the external regulations will impact the ways of working and using resources now and in the future is analysed.</p> <p>Internally challenges: 'Hard to challenge external law and regulations.', 'Estimate the cost to the company to become sustainable?', 'Bringing the value chain partners along this evolutionary journey.', 'Convince senior leadership and investors to get behind the change because only if leadership agrees can protocols be put in place.'</p>
<b>External Input</b>	A new playbook for sustainability is emerging with clear and measurable targets and KPIs, making it easier for organisations to transition.
<b>Objective &amp; actions (t.b.d./O)*</b>	<p>Make mindful and purposeful decisions. Understand nature of the business and its dependencies and then define the relevant scope for the organisation. Understand where the business can make the biggest impact? Understand how can the organisation address both eco &amp; social goals as they are interconnected. Understand how to address and involve the people within the organisation on this journey.</p> <p><b>Actions taken by the organisation:</b> Seeks financing and policies supporting the change initiative. <b>Available frameworks, measures, and targets that can be adopted.</b> Looks at data collected internally from each department to assess real time impact made by the organisation. Seeks external knowledge partners to provide an exhaustive list of potential and possibilities. Consultancies that are experts on the topic to create long-term mindset shifts and short-lists, and audit the focus points relevant for the organisation. Based on the findings and results, prepare &amp; plan a dialogue/workshops with senior stakeholders and partners to narrow the focus based on most to least relevant to the nature of the business. <b>Assessment is important to know what to report on and show what the organisation will focus on.</b> A key factor for success to have intrinsically motivated leadership, clear defined KPIs, and knowledgeable people to guide on this change journey.</p>
<b>Emotional need (of the org.)</b>	Be confident in taking the right course of action.
<b>Quote</b>	"The Board of Erasmus MC really supports this change. So, that helps a lot."

(t.b.d. by Org.)\* to be done by the organisation



Pick focus

Stage & Phase	During   Pick Focus
Steps (t.b.d./O)*	The logical next step for the organisation is to <b>focus on goals &amp; outcomes relevant to the nature of business</b> . Due to the prevailing norms, an organisation must pick eco-social goals. Change towards sustainability needs <b>direction, funding and vision from senior leadership</b> to make a smooth transition.
External Input	Sustainability gaining momentum is pressuring organisations to do better. Support for sustainable initiatives in EU makes it easier to approach this topic and convince senior leadership to make this change.
Objective & actions (t.b.d./O)*	Have a clear vision and mission from the senior leadership for the organisation. Prepare relevant focus for the organisation and its departments.  <b>Actions taken by the organisation:</b> Create bandwidth, capabilities & resources to transition smoothly towards this change and make it easy for people to adopt in their day-to-day working.
Emotional need (of the org.)	Feel sure about the path to go from 'as-is' to the 'to-be'.
Quote	<i>"Build change that contains value."</i>

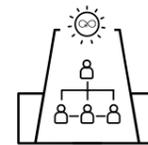
(t.b.d. by Org.)\* to be done by the organisation



Define goals

Stage & Phase	During   Define Goals
Steps (t.b.d./O)*	Once the focus is clear, it is time to <b>set tangible goals &amp; targets</b> based on the nature of the business. Make a <b>holistic strategy that can evolve</b> with time and eventually leverage it in the organisation's fabric. In case of a merger or an acquisition this can give a clear roadmap to the new management. It clarifies on why the senior leadership will have to value green goals over financial growth alone.
External Input	-
Objective & actions (t.b.d./O)*	Make a firm foundation and integrate it in the business. Create a long term strategy with a mid-term checkpoint with a common goal. Show that it creates business value.  <b>Actions taken by the organisation:</b> <b>Use design tools such as collaborative working</b> with partners and internal teams to get their input on integrating it into the organisational fabric. Integrate existing initiatives, & motivate people to the focus and goals. <b>Top-down and bottom-up co-operation &amp; collaboration</b> should be done right at the start not at the end where not much change can be made. Due to the evolving nature of change, consistently iterate & evaluate.
Emotional need (of the org.)	Be clear in the role of eco & social goals
Quote	<i>"Always get it to a holistic strategy"</i>

(t.b.d. by Org.)\* to be done by the organisation



Start roll out

Stage & Phase	During   Start roll out
Steps (t.b.d./O)*	Once the goals are clearly defined it's time to integrate them into the organisation's fabric. Bottom-up integration and across teams. <b>Create a common language to orchestrate towards a common goal</b> . Facilitate change through co-creation and leverage employees roles to fit the goals. <b>Educate &amp; build capacity</b> across the organisation and with value chain partners. The decision needs to come from senior leadership to integrate resources, costs and responsibilities.
External Input	A network of sustainability champions forming a network to creating opportunities & change.
Objective & actions (t.b.d./O)*	Ensure that people across the organisation feel empowered to adopt, and adapt make it top-of-mind.  <b>Actions taken by the organisation:</b> Collaborative working of cross departmental team of ambassadors to inspire others. Make it relevant to the people's day-to-day jobs and show how it fits in the big picture. <b>Critical mass adoption is necessary for successful adoption &amp; implementation in the long term</b> . A key factor of success is to train and educate so that people can seamlessly adopt the change in their day-to-day working. Thus, make it easy to understand using a design tool visualisation, such as graphs, clinics, share stories highlighting behind the stage success. More joint-partnerships and build a community. Get enthusiastic suppliers participate in this transition.
Emotional need (of the org.)	Feel good about the progress.
Quote	<i>"Not just one central team, but really, make sure it's integrated into the entire organisation"</i> .

(t.b.d. by Org.)\* to be done by the organisation



Evaluate progress

Stage & Phase	During   Evaluate Progress
Steps (t.b.d./O)*	Based on the focus and goals, governance, metrics & KPIs are put in place to track performance at the end of the year. <b>Accurate performance measurement &amp; reporting are key to the success of this phase</b> . Annual report shows what the organisation has focused on and how well it has done externally in a clear and transparent manner.
External Input	Clear measurable science based targets are available for a few sustainable goals. There are reputable agencies measuring and governing these targets to bring credibility and authenticity and trust to the process.
Objective & actions (t.b.d./O)*	Clear and measurable eco & social metrics are reported on. The sustainability report should make sense of the data collected from this lens and accurately report it.  <b>Actions taken by the organisation:</b> Seeks respected and trustworthy assessors. Apply the right framework of measurement that suits the organisation. Prepare measurement dashboards.
Emotional need (of the org.)	Doing more good for the future.
Quote	<i>"CO2 based targets, yeah, it's really a lot of work to measure what you're doing as a company, and to really try to avoid assumptions as much as possible with really measure your impact."</i>

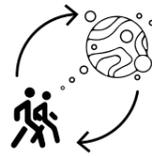
(t.b.d. by Org.)\* to be done by the organisation



Adopt approach

<b>Stage &amp; Phase</b>	During   Adopt approach
<b>Steps (t.b.d./O)*</b>	If all goes successfully, the next step is to build focus continually. Eventually, <b>create a culture and embed it in the pillar of the organisation.</b>
<b>External Input</b>	Clear measurable science-based targets are available for a few sustainable goals. There are reputable agencies measuring and governing these targets to bring credibility and authenticity and trust to the process.
<b>Objective &amp; actions (t.b.d./O)*</b>	Adopt & create a culture in the organisation. Communicate externally to customers & other stakeholders.  <b>Actions taken by the organisation:</b> Prepare communication materials to <b>communicate to customers.</b> Share behind the scene success stories. Connect to media relations for wide spread coverage.
<b>Emotional need (of the org.)</b>	Be proud to show external progress & transparency in the adopted approach.
<b>Quote</b>	<i>"There is no human equivalent to a science based target"</i>

(t.b.d. by Org.)\* to be done by the organisation



Evolve & iterate

<b>Stage &amp; Phase</b>	Evolve   Evolve & iterate
<b>Steps (t.b.d./O)*</b>	Sustainability is only gaining importance now, and it is an evolving journey. Thus this stage loops back to reviewing earlier phases to <b>check health and continuum of changes. Important to embed long term thinking and work towards business model disruption.</b>
<b>External Input</b>	New factors for evaluation and business models are and will be emerging.
<b>Objective &amp; actions (t.b.d./O)*</b>	Organisations will need to collectively get behind a common agenda to create a global scale and long-lasting change. A network of organisations supporting other organisations.  <b>Actions taken by the organisation:</b> Just make a start and slowly make it bigger and bigger. Build for the future generations to come.
<b>Emotional need (of the org.)</b>	Doing better together on this evolving journey.
<b>Quote</b>	<i>"Every year do a sustainability week."</i>

(t.b.d. by Org.)\* to be done by the organisation

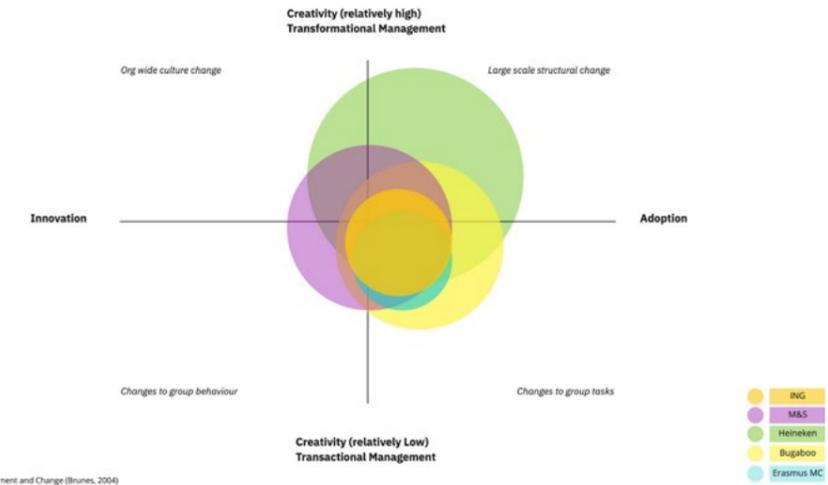


Figure 14: Leadership Management and Change (Brunes, 2004) to reflect on the organisation change lifecycle

**TAKE AWAY**

Based on the interviewee's responses, their organisations are mapped across Brunes 2004, 'Leadership management and change' model (Figure 14).

Reflecting on the results, it is clear that the organisations that had started their sustainability journey earlier and embedded the change into the organisations' fabric are highly innovative and creative in transformational management. They can make changes to group task, group behaviour and make an organisation-wide culture shift.

**TO SUMMARISE:**

1. The Anthropocene epoch is where humans constitute the dominant driver of change to the Earth's System.
2. Organisational models need to shift towards regenerative, distributive and collective thinking that aims to thrive over growth.
3. Organisation's fabric encompasses and dictates the use of resources, ways of working, structures and hierarchies over both the product and customer lifecycle. Thus it is important to focus on the organisations' fabric for sustainable futures.



Chapter 04

## Define

Solution space and guiding principles

This chapter defines the focus for the solution space, roadmap, and the guiding principles relevant for Livework.

# Define

Solution space and guiding principles

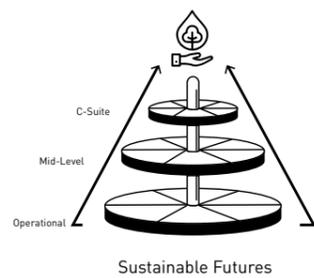


Figure 15: How can we create a central spine for all levels within the organisations to have a new common goal: sustainable futures?

## 4.1 IDENTIFYING THE RIGHT OPPORTUNITY FOR LIVEWORK:

As acknowledged earlier, two areas of inquiry for Livework are to understand: 'What is the journey of transformation towards sustainable futures in an organisation?' and secondly, 'What is the sustainable futures direction suitable for Livework to enable this mindset change in organisations?' (Figure 15)

Organisation's sustainable future journey in the previous chapter address the first area of inquiry and reveals six opportunity areas. These opportunities are weighed against the strengths and weaknesses of Livework's capabilities, expertise and readiness to deliver (Refer to Appendix 8.7). Mapping the market need against Livework's current expertise, **opportunity 3 is unanimously chosen by the senior leadership of Livework.** Since this is a growing need in the market and aligns well with Livework's current capabilities, it is the best option to pursue (Figure 16).

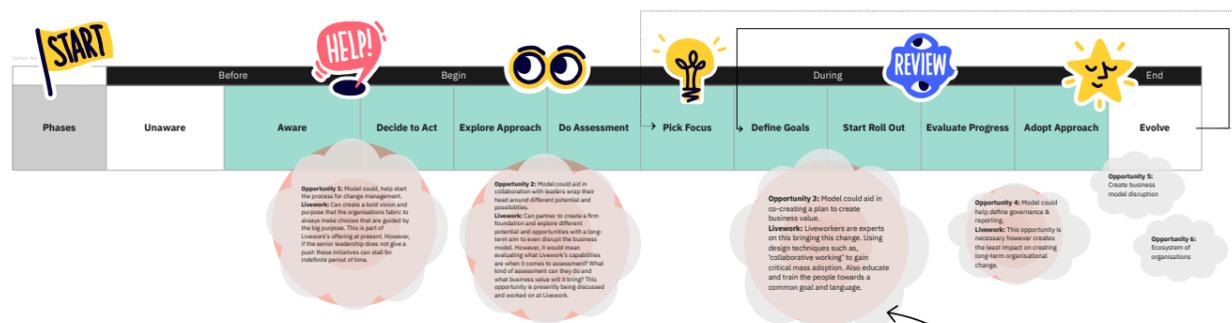


Figure 16: Mapping opportunity areas across organisation's SF change cycle.

**Opportunity 3: Aid in integration across the organisations' fabric.**

	Customer Centric Aligned with experience economy	→	Eco-Centric Aligned with ecological era
Basic philosophy	<b>Focus on Serve customers:</b> all decisions start with the customer and opportunities for advantage		<b>Focus on System limits/health:</b> all decisions aim to deliver human needs within ecological limits (doughnut model)
Business orientation	<b>Relationship Oriented</b>		<b>Interdependence Oriented</b>
Product positioning	<b>Highlight benefits</b> in term of meeting individual <b>customer needs.</b>		Highlight benefits in terms of <b>meeting collective needs</b>
Organisational Structure	<b>Customer segment centers,</b> customer relationship manager, customer segment sales team		<b>Relationship management, Network of relationships</b> teams relate to adjacent parts of the system inside and outside and between the organisation.
Organisational Focus	<b>Externally</b> focused, customer relationship development, profitability through customer loyalty, employees are customer advocates.		<b>Systemically focused,</b> looking to optimise wider system and find a role
Performance metrics	<b>Focus on Processes of value of co-creation:</b> Share of wallet of customers, customer satisfaction, customer lifetime value, customer equity.		<b>Focus on Processes of value of co-creation:</b> Share of wallet of customers, customer satisfaction, customer lifetime value, customer equity.
Customer Knowledge	Customer knowledge is <b>valuable asset.</b> Focus on <b>Capabilities.</b>		Customer knowledge is <b>valuable asset.</b> Focus on <b>Relationships.</b>

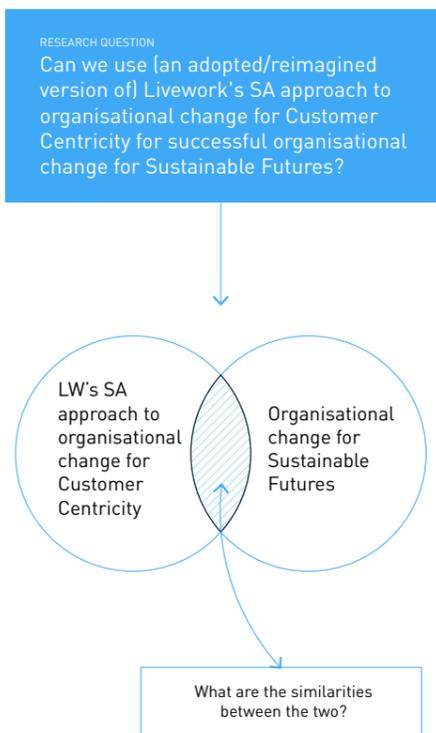
Figure 17: Livework's vision for ecocentricity. (Bonacchi, M., & Perego, P. (2011))

Now that there is clarity on the focus of the solution space, there are certain gaps that Livework needs to address internally. For instance, What is the sustainable future vision for Livework? Using Bonacchi's & et al., (2011) framework and collaboratively working with the senior leadership, the transition from customer-centric to ecocentric SF vision for Livework are filled in. **Livework's vision for SF is regenerative ecocentricity, guiding the design artefacts** (Figure 17). Livework's service architecture tool transformed organisations from 'product centric' to 'customer centric'. Moving towards sustainable or ecocentric futures the mindshift change is towards 'systems health' as described in Kae Raworth's book 'Doughnut Economics'. **While customer knowledge is still a valuable asset, the major shift is towards meeting the collective needs of living systems and managing a network of relationships** within and between organisations.

## 4.2 SUSTAINABLE FUTURES DIRECTION SUITABLE FOR LIVEWORK:

Reflecting on the main research question: 'How can we use Livework's approach for organisational change for Customer- Centricity for Sustainable Futures?'

Mapping the findings and insights from the previous chapters brings to light some similarities and certain points unique to sustainable futures and defines the next steps to be taken by Livework.



### Similar:

#### *Organisational transformation is possible with this approach*

- Gives a bird's eye view of the organisation.
- Make prioritizing & funding easier.
- Common goals & language makes it easier to orchestrate.
- Inspiring leadership makes it easy to embed it in the day-to-day of the organisation.

#### *Service designers can 'facilitate' behaviours within complex organisations.*

- Service design fosters strong connections.
- By design - inquisitive, iterative & inclusive.

#### *Top-down & bottom-up transition*

- Critical mass adoption for long term sustained change.
- Sense of belonging and inclusion in the changes and transition.
- Create advocates and bring security and awareness in their roles.

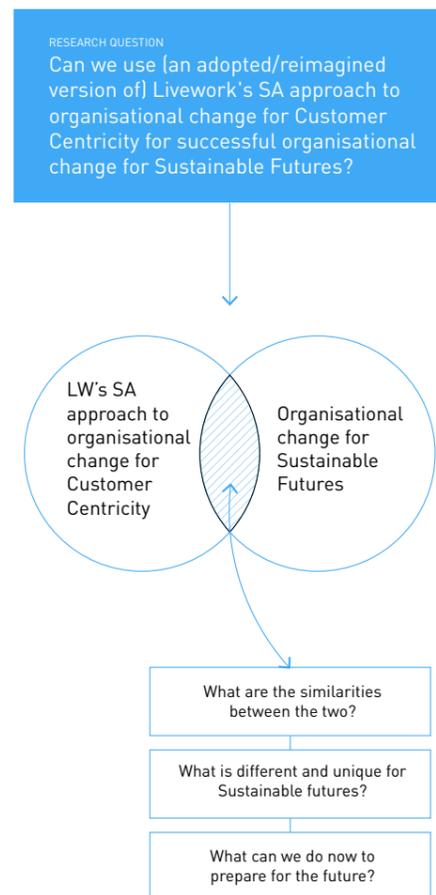
#### *Collaborative Involvement from as-is to to-be*

- Focus on network of relationships.
- The transition cannot be done in isolation.
- Design-led.

## *"It needs to be holistic. As sustainability agenda has to address environmental elements."*

(Global Sustainability Lead at Heineken)

Livework's Service Architecture approach has the unique strength to bring the customer-centric lens within an organisation's fabric. However, the customer-centric lens is not scalable beyond the human and thus remains anthropocentric and not ecocentric. A regenerative ecocentric lens needs to go beyond the human and addresses the living systems as one. **Therefore, there is a need to develop/adopt system design tools and techniques for Livework's knowledge library.**



### Unique to Sustainable futures:

#### *Ecological era*

- Thinking in living systems.
- Long-term thinking.

#### *Systems Limits/Health*

- Be aware of planetary boundaries.
- Meeting needs of the present without compromising the future.
- Systems Services focused.
- From growth to harmony, respect and balance.
- Design systemic services.

#### *Regenerative & Distributive*

- Holistic world view.
- Stop take-make-waste and move to regenerate.
- See human and the rest of life as one.
- Focus less on growth, instead on thriving and flourishing living systems.
- Find deeper leverage points.
- Focus on causes of unsustainability rather than its symptoms.
- Centralization to Distributive.

#### *Collective Needs*

- From 'me' to 'we.'
- Interconnected relationships.

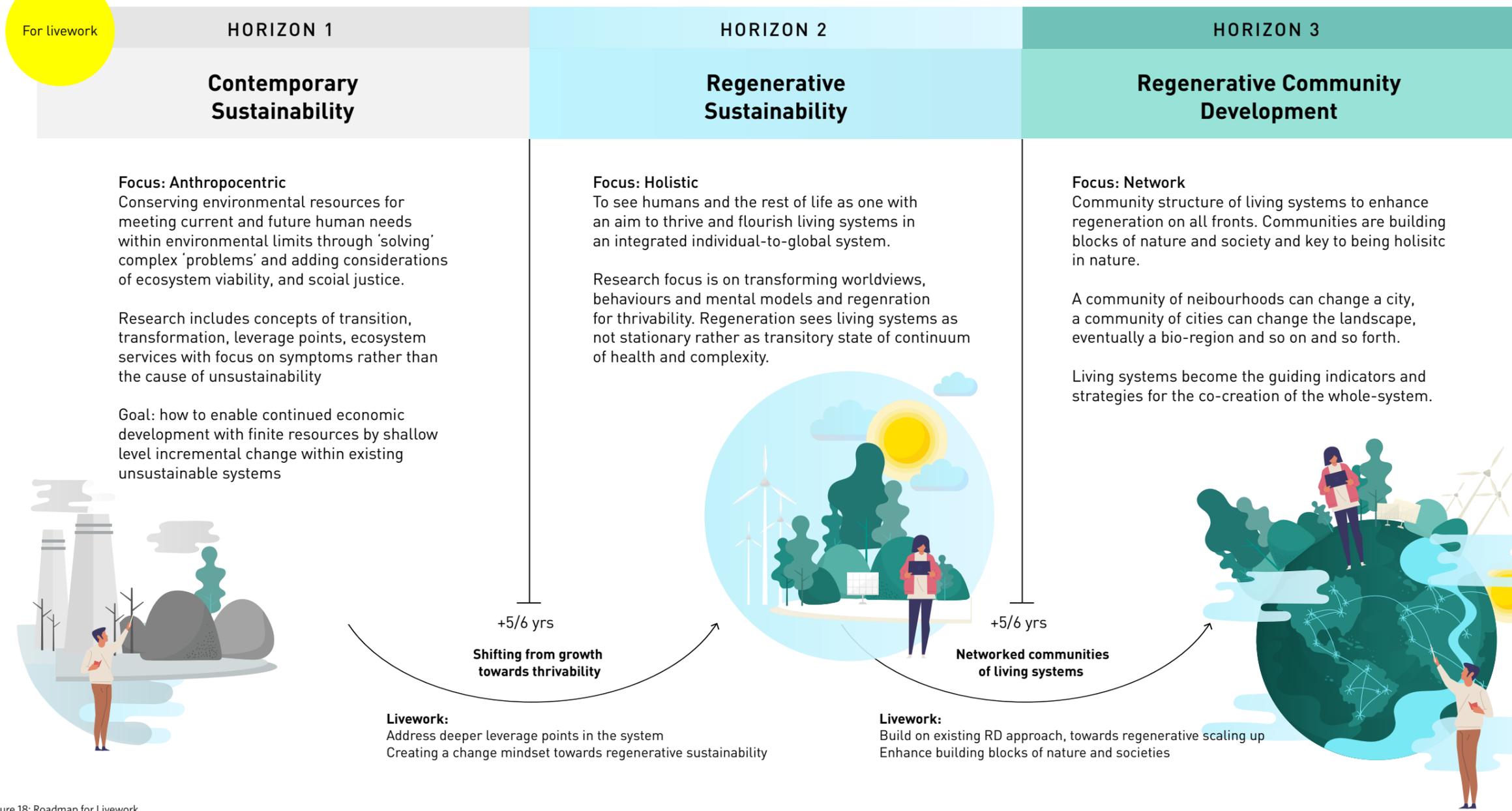


Figure 18: Roadmap for Livework

#### 4.3 ROADMAP FOR THE FUTURE:

Referencing the organisational journey towards SF in the previous chapter, Livework has 'decided to act' on sustainable futures, did an 'internal assessment', and 'picked a focus'. The next step is to 'define goals'. This roadmap is a north star for Livework to follow on their journey towards regenerative ecocentric futures.

The roadmap has three horizons to go from the 'as-is' (current) state to the 'to-be' (future) state for Livework. The timeline for each horizon is estimated based on the interview responses of sustainability leaders in the previous chapter (Figure 18).

'Contemporary sustainability,' which focuses on the 'Anthropocentric' view where humanity's growth stresses the limits and health of Earth's resources (Gibbons, L. V., (2020)).The roadmap charts a transition towards Regenerative sustainability in the next five years, where thriving replaces economic growth. Livework will have to find deeper leverage points and causes of unsustainability in their client's projects to make this transition. Regenerative sustainability, where the human and the rest of life is one thriving and flourishing system, requires systemic thinking. Livework will need to develop a knowledge library and build a common ecocentric language. Educate and train their employees to integrate it into their day-to-day working

and make it part of the culture. Partnering with thought leaders, and educational institutes will further enhance their knowledge capital. This transition will be sustained longer if there is critical mass adoption among Liveworkers and their clients. Testing with academic rigour and real application in organisations will help Livework make this approach uniquely theirs. Regular checks and metrics will have to be implemented to observe a continuum of health and complexity on this voyage of discovery. Once this paradigm shift happens, a community of this change will further this change from a local to a global scale. Enhance regeneration on all fronts.

Therefore, the roadmap is a compass for Livework as they transition towards regenerative ecocentric futures. Figure 19 shows a quick reference sheet of the guiding principles for the next phase.

- TO SUMMARISE:**
1. Regenerative sustainability is Livework's chosen vision.
  2. LSA approach is customer-centric, thus incapable of going beyond the human to include all living systems.
  3. There is a need to develop a new knowledge library of system design tools and techniques for Livework.
  4. Roadmap is a compass for Livework to make mindful decisions.

#### 4.4 GUIDING PRINCIPLES FOR REGENERATIVE ECOCENTRIC FUTURES

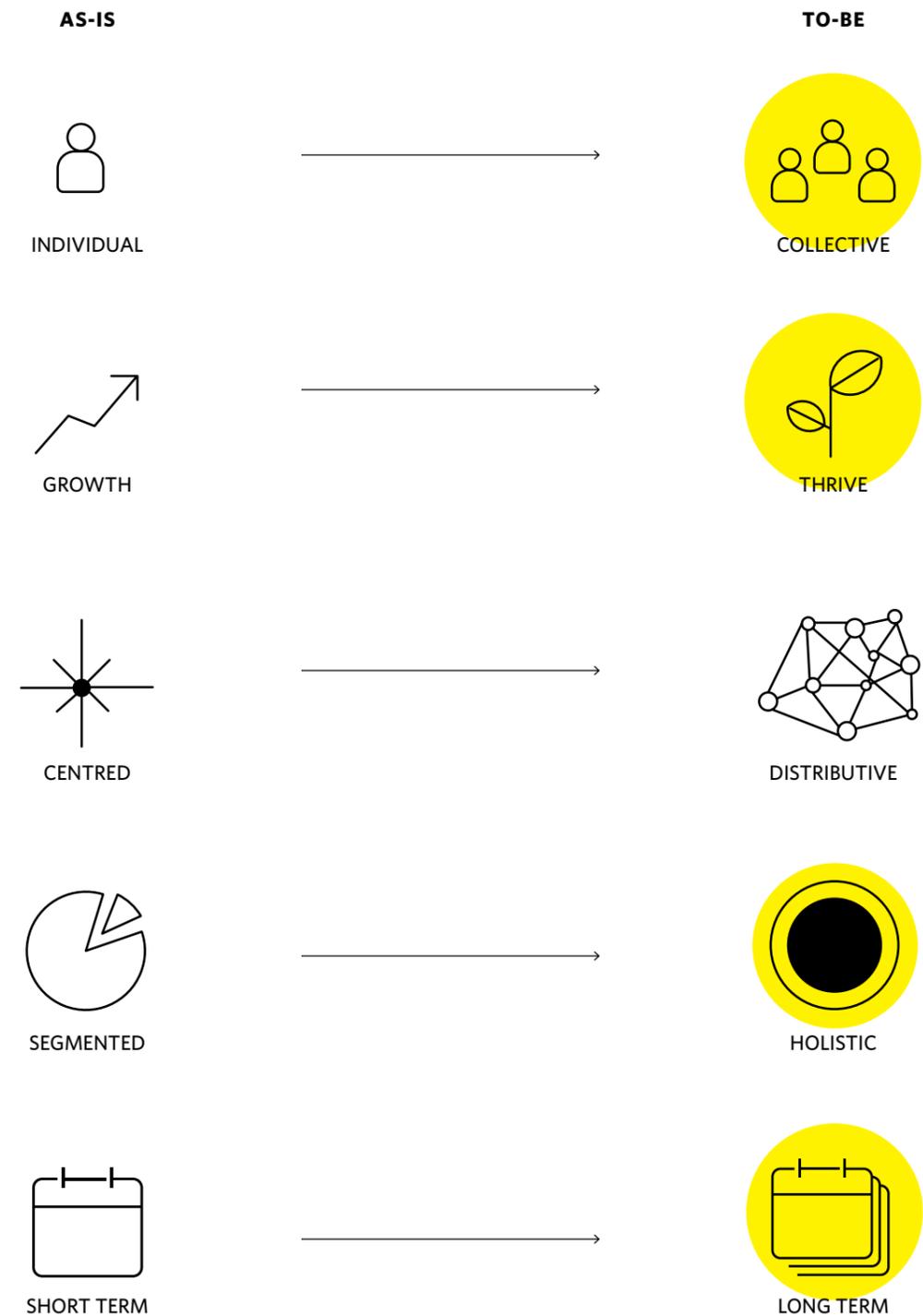


Figure 19: Guiding principles for Livework



Chapter 05

# Design

A tool for regenerative and systems thinking

This chapter shares the design process adopted to help Livework enable its client to think in regenerative and thriving systems.

# Chapter 05 Design

A tool for regenerative and sustainable thinking

## 5.1 IMAGINE A NEW APPROACH FOR LIVEWORK:

The aim is to transition the knowledge from research to a tangible design outcome that complies with the previous chapters' roadmap, guidelines, and defined goals.

### Design Objective:

As stated in the previous chapter, there is a need to develop system design tools and techniques for the knowledge library for Livework to progress towards Horizon 2 from the roadmap. Therefore, the design challenge is 'How can Livework enable organisations to think in regenerative and thriving systems?'

### Design goals:

The tool has to be industry agnostic. Enable clients to think in regenerative and thriving systems. Foster a network of relationships. Create a common language, making it easier to orchestrate a common goal. Cultivate holistic and long-term thinking. Make prioritising easier and purposeful decision making. Find deeper leverage points. Focus on causes of unsustainability. Enable collaborative ways of working.

### Design requirement:

Simple and easy to understand visuals. Clear step-by-step instructions. A preparation pack for the participants to help them become familiar with the topic. Use of metaphor or storytelling to make it seem believable and achievable. Create future milestones.

### Design approach:

There is exploratory research done in the area of system design thinking tools. The initial approach is to use research-through-design methodology and seek an existing system design thinking tool or framework can be adopted by Livework.

Observing and analysing existing tools and frameworks, the ones suitable for Livework are selected and iterated for Livework. These design outcomes are tested with TU, Delft students to enhance the clarity of the design outcome. Co-creating sessions is organised with Liveworker's

senior leadership. During the session a walk through of the tools is given and discussed to learn how feasible, viable or desirable each solution is. The aim of co-creating is to build ownership, accountability, and long-term adoption. (Figure 20). (Refer to Appendix 8.8 for further information about the design direction explored)



Figure 20: Concept exploration

The feedback from these sessions reveals that the ideas did create a simple visual representation of an ecosystem. However, expanding on the McKinsey model of organisational structures the focus is on management and fails to spark imagination for interdependencies in regenerative thinking in systems. System design thinking tools are holistic in their vision but are very high level and hard to integrate into the day-to-day. From the options the exploration of an organisation as a garden resonated with everyone and thus is iterated further.

## 5.2 DESIGNING A SOLUTION FOR LIVEWORK

*"I think success is building a good story that everybody understands because sustainability is not an easy word. Yeah. Recycling at home is completely different from using things at work. Yeah, so I think we made a very good story."*

Sustainability Lead at Erasmus MC

This insight from the sustainability interviews made it clear that a good story or a metaphor can make the journey from where the organisation's current mindset is to where Livework collaboratively wants to take them believable and achievable.

Organisations are a complex ecosystem of humans. Unlike Management and Technology consulting agencies, Livework is described by the clients (Refer to chapter 2) to bring the human side of the story.

Reflecting on the design goals the main factor of success for the tool is to enable organisations to see beyond their operations and customers to the wider systemic and interconnected ecosystem they interact and impact everyday and address the deeper leverage points and identify the root cause of unsustainability. The solution also needs to be industry agnostic and adaptable.

The design challenge is 'How can we make the organisations think in regenerative and thriving systems?' (Figure 21). The following solution is proposed:

HOW| Approach

Inspiring & relatable story

Easy to understand and industry-agnostic for easy adaption

WHY | Motivation

Holistic and evolving strategy in place.

Integrate it in to the fabric of the organisation for long term adoption.

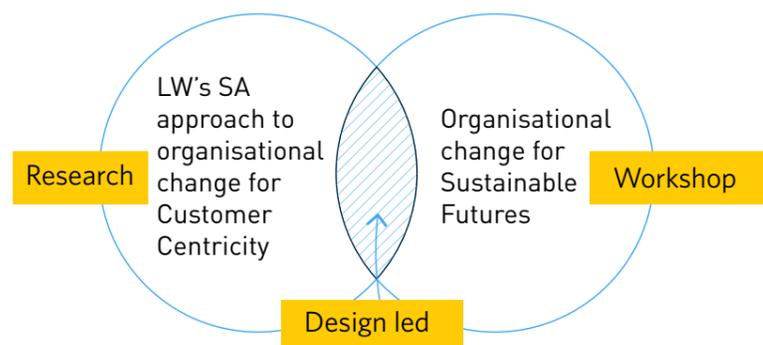


Figure 21: The design outcome is a tool

WHAT | Workshop

'Co-creation' and 'service design' bring human centric approach

Involving people in a workshop brings ownership, alignment, buy-in, accountability and long term adoption

Common language makes it easier to orchestrate change towards a common goal.

WHOM | People

Employees are both a source of knowledge and a mechanism for change.

People associated with the organisation.

## 5.3 GARDEN AS A METAPHOR FOR THRIVABILITY

*'The 'modest' garden is projected as an omnipresent metaphor that holds nurseries of biodiversity and contradictory 'cohabitation'. Even in disastrous scenarios a garden can become a ground for building blocks of new forms of cooperating, producing, distributing and sharing.'*

'The garden as a metaphor of resilience'. (Moulaert, Frank and Van Dyck, Barbara, (2011)

Moulaert & et al., (2011) paper reflects the garden as a desirable future. There are many factors that impact its survival, such as seasons, soil fertility, water, biodiversity, laws, the capability of the farmer etc.. If done well, each action and approach taken by humans can contribute to the gardens' thriving and flourishing of living systems connected to it, or if done imperfectly, it can deteriorate its fertility in the long run.

The feedback from co-creation sessions with Liveworkers highlight these main points on why the garden as a metaphor works for them:

1. The metaphor draws the participants in to a world of interconnected systemic relations and their dependencies on each other for survival.
2. It is easy to draw the parallel connections between functioning and behaviour of a garden to that of an organisation.
3. The workshop makes an abstract idea like thriving become tangible. A co-creative approach is coincidentally a strength for Liveworkers.
4. Nourishing and replenishing this garden collectively, provides a common language, making it easier to orchestrate towards a common goal.

Therefore, garden as a metaphor is part of the solution space.

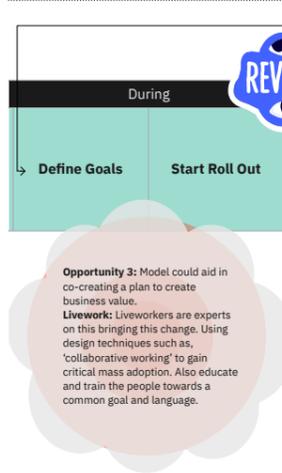


Figure 22: Organisation's SF change cycle.

#### 5.4 SCENARIO FOR THE RIGHT TIME TO APPLY THE TOOL:

This tool is applied when the organisations seek consultancies like Livework to help them define holistic goals that can be integrated into the organisations' fabric. (Figure 22)

First, Livework needs a bird's eye view of the current organisational mindset towards sustainable futures and how they perceive them. This organisation can be from any industry vertical thus the tool needs to be industry agnostic and adaptable.

Second, Livework needs to bring cross-functional and cross hierarchical participation to give them a common language and a common goal to gauge the depth of integration inside the organisation.

Third, Livework needs to identify the pain points to provide an action plan on how to design the next steps for the organisation. (Figure 23)

#### 5.5 WORKSHOP: ORGANISATION AS A GARDEN

Morris & et al. 2005, recommend interviews and workshops to create a common dialogue between various departments and groups. Co-creation and collaborative working, as previously stated, is a principle for success as it enables purposeful decision making and gives a common language to achieve a common goal. It creates advocates and a sense of belonging by involving people in the journey, leading to critical mass adoption, which is another significant factor for sustaining long-term change. Finally, it adopts a systemic approach to address wicked problems by focusing on a network of relationships. Hence workshop as a tool for regenerative and systemic transition is chosen. The organisation as a garden is chosen to inspire the concept of thirvability.

This workshop is inspired and based upon the Livework way of working for two main reasons:

ONE, it will be easily adopted by the Liveworkers internally, and critical mass adoption leads to long term adoption of the concept.

TWO, this approach has been proven successful with clients previously, as it brings a sense of involvement, alignment and buy-in towards the new worldview.

#### DAY 0: PREP PACK | Introduction

The workshop begins with day 0: Three to four days before the workshop a preparation pack is emailed to the participants with homework exercises that need to be completed before meeting on the day of the workshop. The prep pack educates the participants over the topic and metaphor to get them in the same headspace (Figure 24).

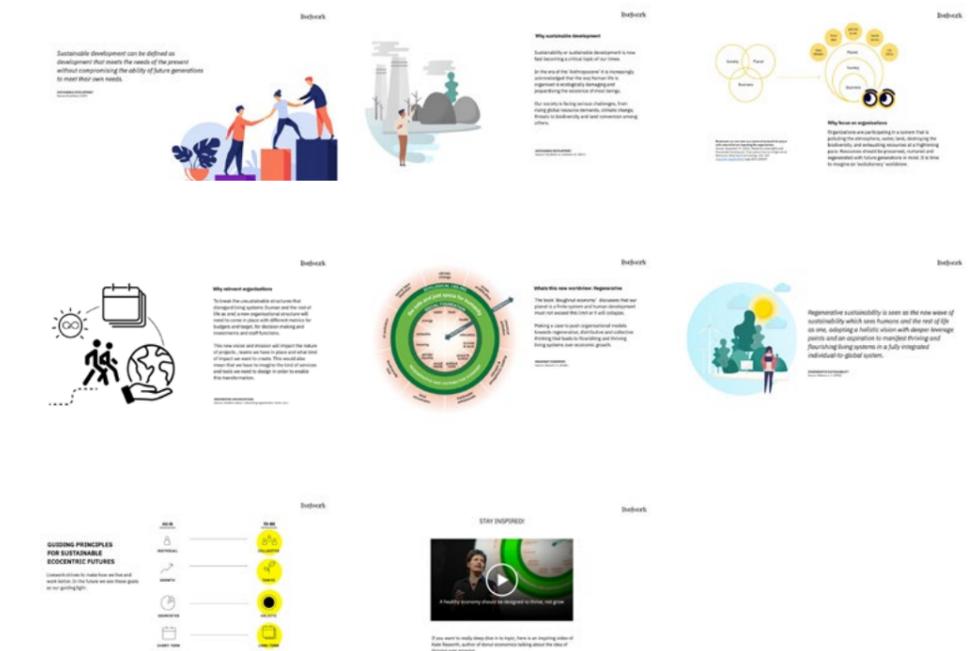


Figure 24: Prep pack Introduction slides

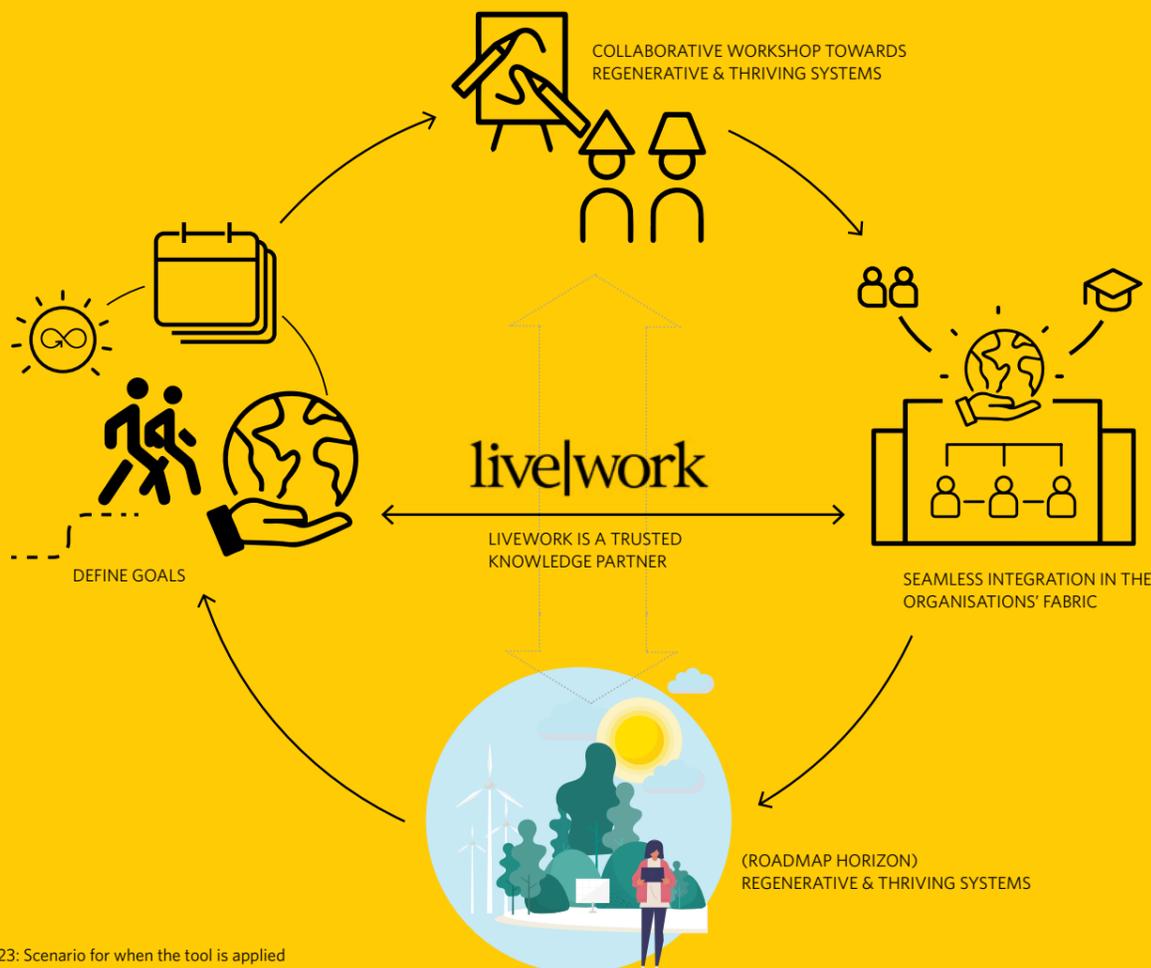


Figure 23: Scenario for when the tool is applied

**DAY 0: PREP PACK EXERCISES | Personalising the story to the organisation**

Connecting the topic on a deeper level with the participants is made relevant to their organisation and day-to-day work. This part of the prep pack makes the participants reimagine their organisation as a garden that has to thrive for the coming financial year and for years to come (Figure 25).

The workshop exercises are presented in four slides:

- Slide 1: OUR EXPLORATION TODAY** - A slide titled "Let's imagine your organisation as a garden" with the subtitle "Looking to the future where we reimagine a way to live and work, let's imagine your organisation as a garden that has to thrive for not just the coming financial year but for years to come." It features four sliders:
  - CUSTOMER CENTRIC vs SUSTAINABILITY CENTRIC
  - THINKING OF GROWTH vs THINKING OF THRIVING
  - FOCUSING ON BUILDING IN-HOUSE CAPABILITIES vs FOCUSING ON PARTNERS & RELATIONSHIPS
  - SHORT TERM PLANNING ON SUSTAINABILITY (Less than 5yrs) vs LONG TERM PLANNING ON SUSTAINABILITY (More than 5yrs)
- Slide 2: THE BACKGROUND STORY: SOIL** - A slide titled "Imagine the centre layer: the core of your organisation as your 'soil' that needs to replenish ever so often to remain healthy and survive longterm." It includes a diagram of a central "Soil" circle and a text box: "How would you define the 'Soil' for your organisation? Guided by < sustainable principles >, and < goals >, we will strive to < sustainable outcomes > for our < audience >." Examples include "e.g. guided by circularity focus on environmental and social goals we will strive to bring responsible change for our customers." and "e.g. Michael Porters from sales".
- Slide 3: THE BACKGROUND STORY: NURTURERS** - A slide titled "Inner circle: Any internal resources or people that directly impact the health of the 'soil' a.k.a. thrive-ability of your organisation are the 'nurturers'." It includes a diagram of an inner "Nurturers" circle and a text box: "In your eyes who do you perceive as your organisation's 'Nurturers'?" Example: "e.g. Michael Porters from sales".
- Slide 4: THE BACKGROUND STORY: INFLUENCERS** - A slide titled "Outer circle: Any external resources or people that indirectly impact the health of the 'soil' a.k.a. thrive-ability of your organisation are the 'influencers'." It includes a diagram of an outer "Influencers" circle and a text box: "In your eyes who do you perceive as your organisation's 'Influencers'?" Example: "e.g. TU students who help innovate".

Figure 25: Exercises of the workshop

**Components of the exercise:**

The 'soil' or the core of the organisation needs to replenish ever so often to remain healthy and survive longterm. Regenerating like a living system that is not stationary rather a transitory state of continuum of health and complexity. Its thrive-ability depends on many resources and people which impact it directly or indirectly.

**Nurturers:** Any internal resources or people that directly impact the health of the 'soil' a.k.a. Thrive-ability of your organisation are the 'nurturers'. These could be your value chain partners, employees or stakeholders, investors who water the 'soil'. 'Bees' or people, within an organisation who pollinate ideas for a better future. At the end customer is a key stakeholder in your journey, so he is also at the heart of your business.

**Influencers:** Any external resources or people that indirectly impact the health of the 'soil' a.k.a. Thrive-ability of the organisation are the 'influencers'. For instance, law and policy makers set regulations, ecocentric goals set by global institutions, advocates for ecocentricity, knowledge partners in academic institutes and thought leaders. The outer circle doesn't just stop there, as the organisation has to consider other biodiverse 'influencers' such as the land it operates on or impacts, the rivers and other natural and living systems it 'influences' to meet its needs.

**DAY 1: WORKSHOP DAY | Connecting the dots**

On the day of the workshop 4-6 participants from cross-functional and cross-hierarchical departments of the organisation meet with Liveworkers, one of whom will be a facilitator, and the other an observer. The workshop duration is between 45-60 minutes in Miro's online workshop environment. The workshop aims to enable organisations to see beyond their operations and customers to the wider systemic and interconnected ecosystem they interact and impact everyday, address the deeper leverage points, and identify partners to tackle the root cause of unsustainability.

**The workshop has three main steps:**

1. Participants map the soil statement and the actors from the homework exercises on to the circles. Livework gets a bird's eye view of the current organisational mindset towards sustainable futures and how they perceive them. Gives them a common language and a common goal to gauge the depth of integration inside the organisation.
2. Participants draw connections between players that positively impact the soil or create blockages. Livework identifies pain points and missed opportunities.
3. Participants map where they wish to partner or mark a leverage point to create positive change. Livework gets a clear scope and an action plan for the organisation.

**WELCOME!**

Write your name and  
Share a picture of a 'Non-human' friend &  
why you chose it?

Ice-breakers and introductions to kick  
start the workshop on a light and fun  
note. Introduce the team and their role.

OUR EXPLORATION TODAY

## Let's plant your organisation as a garden

Together we will learn how we can nurture the garden towards an ecocentric & regenerative future

GUIDING PRINCIPLES

- COLLECTIVE
- THRIVE
- HOLISTIC
- LONG-TERM

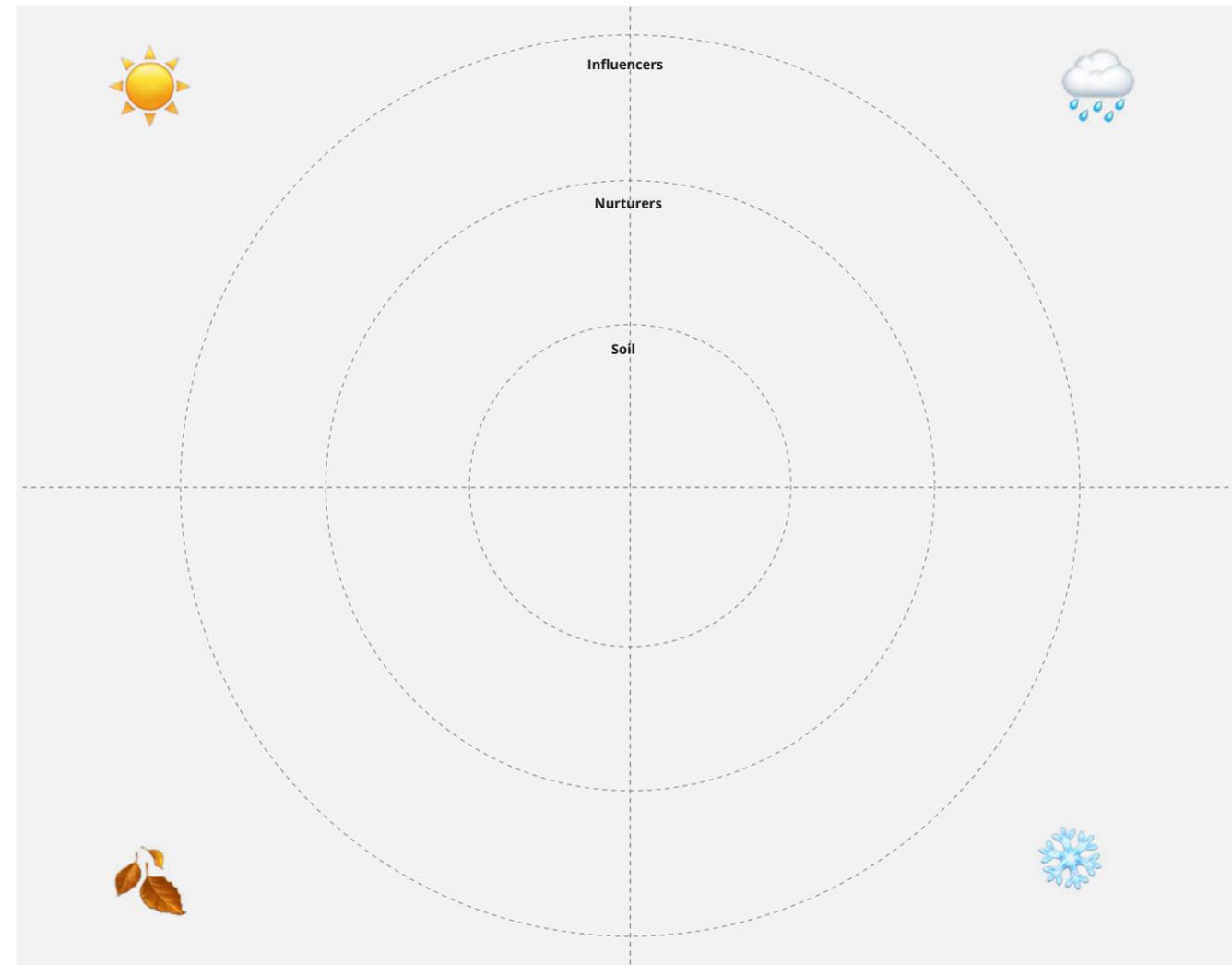
**Objective**  
The tool can help you understand how your organisation can think in sustainable futures

**Aim**  
When you know where you are, you can make a plan for where you want to go.

**Next steps**  
It is an evolving journey. With small steps we achieve the transition from 'as-is' state to the 'to-be' state.

Goal  
**Make your garden thrive**

People  
4-6 (cross functional teams & hierarchies)



**INSTRUCTIONS**

STEP 1:  
Map your exercise on the circles

Time  
15 min

The library of icons

- EDUCATION
- ENVIRONMENT
- FINANCE
- HEALTH
- PROTECTION
- WATER
- AGRICULTURE
- ENERGY
- INDUSTRY
- PEOPLE
- CUSTOMER

Figure 26: Connecting the dots workshop slide-01

**STEP 1 | Map the soil statement and actors/players**

Facilitator: The workshop starts with a 5 min warm welcome and introduces the participants using an icebreaker and a short introduction of the Liveworkers. Based on the participants' level of proficiency in using Miro, the facilitator can set aside 5 minutes to give a walkthrough of the platform (Figure 26).

Facilitator: Asks the participants to map their soil statement and actors/players on different circles. Since the participants are from different levels and teams the assumption is that there are bound to be some similarities and discrepancies. Use this opportunity to understand the motivation for placing the players in that manner. The garden metaphor gives a common language that allows to probe and gauge the depth of integration inside the organisation.

Facilitator: Should probe with questions like:

- Do any of the cards fit in a different position?
- Would you like to reposition the cards?

Observer: Should follow this process with great detail to collect insights on how the organisation perceives it's players currently in the big system.

**At the end of step 1: all the players are mapped.**

OUR EXPLORATION TODAY

## Let's plant your organisation as a garden

Together we will learn how we can nurture the garden towards an ecocentric & regenerative future

**GUIDING PRINCIPLES**

- COLLECTIVE
- THRIVE
- HOLISTIC
- LONG-TERM

**Objective**  
The tool can help you understand how your organisation can think in sustainable futures

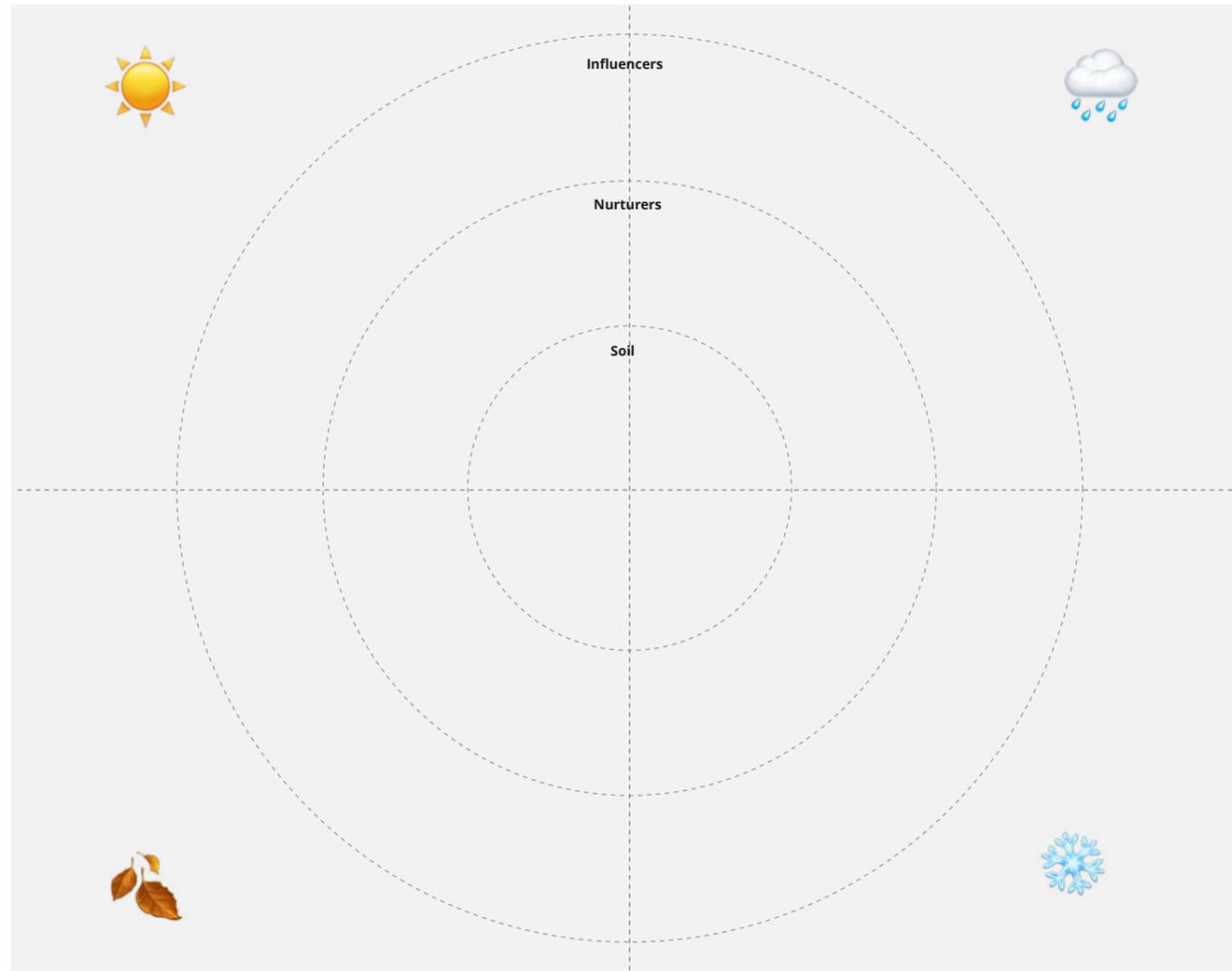
**Aim**  
When you know where you are, you can make a plan for where you want to go.

**Next steps**  
It is an evolving journey. With small steps we achieve the transition from 'as-is' state to the 'to-be' state.

**Goal**  
Make your garden thrive

**People**  
4-6 (cross functional teams & hierarchies)

live|work



**INSTRUCTIONS**

STEP 2:  
Map interconnected relationships between different circles

Time  
10 min

The library of arrows

- Positive impact on the soil
- Negative impact on the soil
- Block/hindrance

**FACILITATOR PROMPT QUESTION**

What are the interconnected relationships between layers that positively and negatively impact the soil?

What factors cause a hindrance for your organisation to make a smooth transition towards SF?

Figure 27: Connecting the dots workshop slide-02

**STEP 2 | Map interconnected relationships between different circles and players**

Facilitator: Familiarise them with the arrows and block icon and how to use them (Figure 27).

Facilitator: Asks the participants to take 10 min to draw connections between players in different circles. Mapping positive and negative relations between players and player that cause blockages for the organisation to reach its optimal goal are flagged with a stop icon.

Facilitator: Discusses over the decision making behind the placement of arrows and icons. The aim is to understand the organisation's pain points and missed opportunities.

Observer: Takes note of the connections drawn and missed to notice the reasoning behind this decision.

Livework uses this opportunity to understand how the organisation perceives it's role and connection with others. Identify what are the pain points and missed opportunities for the organisation.

The assumption is that the participants can see the interconnected nature of systemic thinking and the role of their organisation.

**At the end of step 2, the pain points and missed opportunities will be plotted.**

OUR EXPLORATION TODAY

## Let's plant your organisation as a garden

Together we will learn how we can nurture the garden towards an ecocentric & regenerative future

GUIDING PRINCIPLES



**Objective**

The tool can help you understand how your organisation can think in sustainable futures

**Aim**

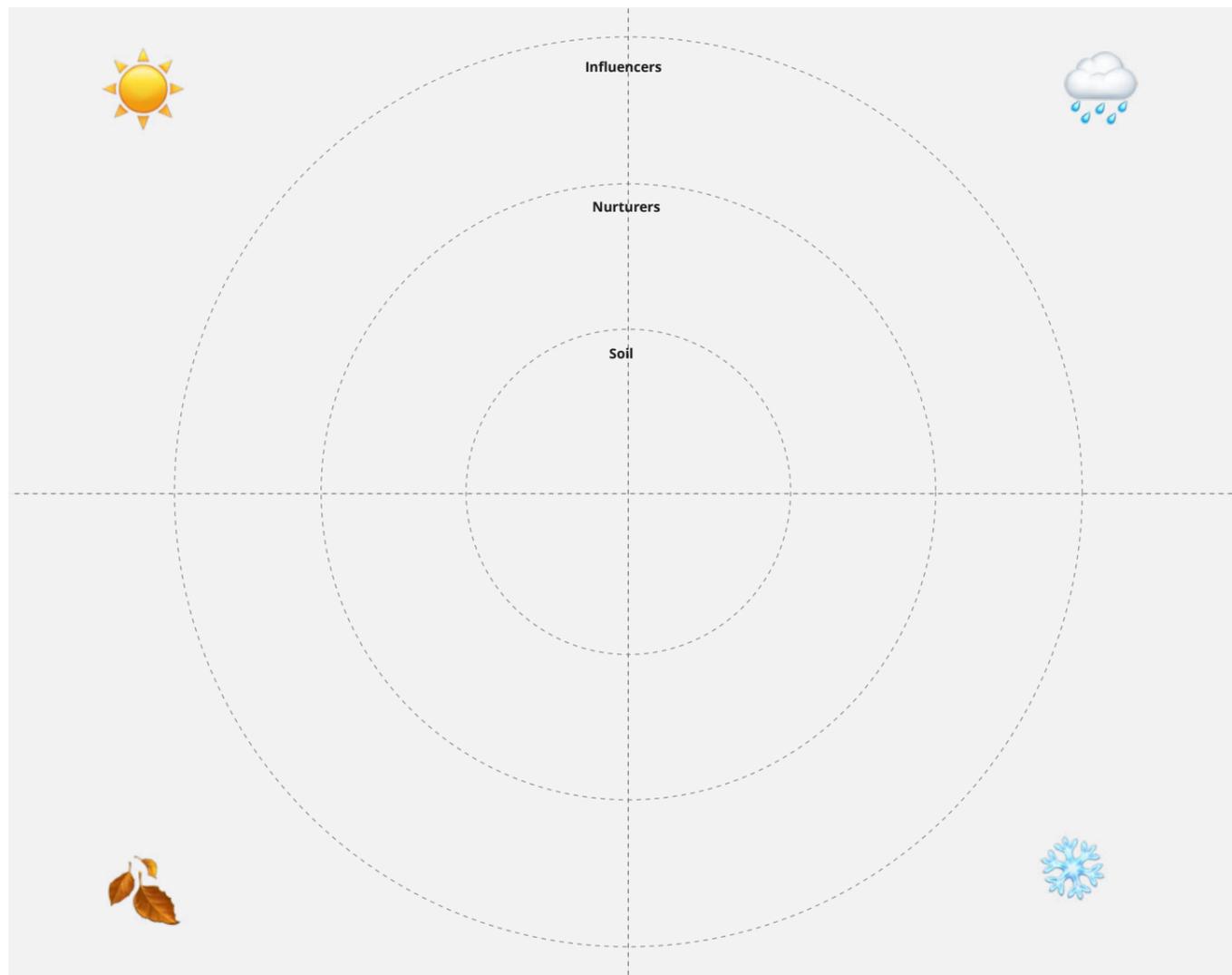
When you know where you are, you can make a plan for where you want to go.

**Next steps**

It is an evolving journey. With small steps we achieve the transition from 'as-is' state to the 'to-be' state.



livework



**INSTRUCTIONS**

STEP 3:  
Map the connections we can leverage or partnerships that will make your soil thrive.

 Time 10 min

The library of icons

 Partnerships

 Leverage points

**FACILITATOR PROMPT QUESTION**

What connections can we leverage to create the change we desire?

What partnerships will aid in a smooth transition towards the change we want?

Figure 28: Connecting the dots workshop slide-03

**STEP 3 | Map leverage points or partnerships that make your soil thrive**

**Facilitator:** Introduces the icons, what they mean and how to use them. The participants are asked to observe the map and find leverage points and partnerships to work collectively towards their desired goals (Figure 28).

**Facilitator:** Steers the conversation to address the causes of unsustainability within the organisation.

**Observer:** Makes a list of high-to-low priority of leverage points and partnerships.

Livework uses this exercise as a playful and mindful way to open the discussion over the organisation's mental models and find top three challenges that need to be addressed first and why.

The assumption is that the participants observe the deep seeded impact of structures and are willing to discuss the next steps.

**At the end of step 3, The results and findings from these sessions will enable Livework to scope the project and propose an action plan custom-fitted for the organisation.**

## 5.6 EVALUATING THE TOOL WITH LIVEWORKERS

***'This tool is more accessible than the a lot of system mapping tools I have seen. Feels like a kind of positively oriented system mapping exercise with the use the garden as a metaphor, and nurturers.'***

Senior leadership, Livework

Lastly, to evaluate whether this tool would be valuable for Livework to adopt, and see how it could be improved, it is shared with five senior leaders from Livework who manage projects on sustainable development. **In these discussions, the feasibility, viability and desirability of the tool is raised and these are the following findings:**

1. This tool fits well within the Livework Design principles and ways of working. The desirability of the tool is high.
2. In the 'System and Context' vertical at Livework, this tool is the first tool to enable systemic thinking. There is a need to develop more tools and techniques for system mapping, if Livework wants to be seen as a specialist in this field.
3. There is need for more proof projects at Livework to make this goal feel achievable and believable internally at Livework .

***'Your hypothesis works as you are looking at organisations which is also what we are focusing on. We should test this with our current clients.'***

Senior leadership, Livework

4. Ecoliteracy across Livework needs to be developed. Education and training on the topic will be delivered through clinics to enable faster adoption of this tool within Livework.

5. To check the feasibility and viability, this tool needs to be tested with Livework's clients.

***'I would use this tool with my clients and infact refer to the map later to gauge the shift in mindset at the end of project. This could be a great mapping tool to show the progress in the organisations journey.'***

Senior Designer, Livework

6. The tool feels unique to Livework as it does not focus on technological or management goals rather it brings the interconnected human side of the story.

**Hence, this tool is added to the regenerative and thriving systems thinking knowledge library**

***'We need a tool to raise empathy in our clients and this tool is the first step to encourage this thinking.'***

Senior Designer, Livework

**TO SUMMARISE:**

1. Workshop as a tool for collaborative and co-creative systemic thinking and garden as a metaphor for thrivability is chosen.
- 2 The tool aims to make organisations think in regenerative and thriving systems.
3. Workshop as a tool meets the design objective and goals. Helps Livework take steps in the direction towards horizon two of the roadmap.
4. Scenario: This tool is applied when the organisation need help defining goals and integrating them within the organisation.
5. Livework needs to develop its system thinking tool and improve ecoliteracy internally. This tool is adopted by Livework as the first tool in systems thinking knowledge library.



Chapter 06

# Evaluate

Validate the tool

This chapter shares the evaluation results of the tool to validate its desirability, feasibility and viability.

# Evaluate

Validate the tool

## 6.1 VALIDATE THE TOOL:

The tool is stress-tested with three participants from organisations with a sustainable future goal. These organisations were interviewed earlier in chapter 3:

**The test aims to validate the assumptions made during the design of the tool and check the tools:**

**Feasibility: Can it be done?**

**Viability: Can it sustain for longer-term?**

**Desirability: Does it address the needs and wants of the users?**

(Figure 29)

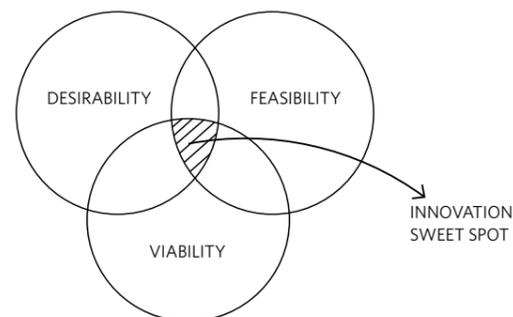


Figure 29: Connecting the dots workshop slide-closing slide

**The test needs to meet specific parameters:**

1. Participants had to be from different departments in the organisation.
2. They had to be from different hierarchies and one participant should be from the senior leadership.
3. The participant's organisations should have defined a relevant sustainability focus for their organisation.

### Constraints:

1. Time was a significant constraint. Thus, the participants are sampled based on their availability.
2. Due to corona regulations, the workshop is in Miro, an online whiteboarding environment.

### Assumptions:

During the design of the tool certain assumptions were made that will be tested with the participants. The assumptions are:

**Assumption from Step 1:** There are bound to be some similarities and discrepancies in mapping.

**Assumption from Step 2:** The participants can see the interconnected nature of systemic thinking and their organisation's role.

**Assumption from Step 3:** The participants observe the deep-seeded impact of structures and are willing to discuss the next steps.

### Approach:

**The tool is stress-tested for feasibility, viability and desirability with three participants in a workshop setting.** Reviews are done through observations, note-taking, and over video/sound bites/photo capture. The feedback is captured over short exit interviews. As a result, several concrete recommendations for Livework are identified. Several exciting areas for future collaborations with TU are evident.

Participation requests is sent to the participants via email. Once the participants agree to participate in the workshop the prep-pack with exercises is emailed to them. The workshop is scheduled in the three days after the email is sent and based on the participant's availability. (The results of the workshop can be found in figures 30 &31).

## 6.2 FINDINGS AND INSIGHTS

*'Really like the set up of a garden. I think it is a great metaphor.'*

Senior leadership, ING

Assumption from Step 1: There are bound to be some similarities and discrepancies in mapping.

In teams with more than one person, discrepancies and similarities are visible.

There is discussion and exchange of reasons for plotting the players across the board. A few revisions are made based on the discussion and the facilitator's prompts which inspired one of the participants to rewrite the soil statement to what he thought the organisation should aspire to. There is noticeable shift in the perception of a participants mindset.

This exercise is most helpful when there are two or more people from different teams. It is easier to get different perspectives over the same players on the board. The pitfall with the ING workshop was that only one senior leader participated, and the participant felt the lack of a second participant. Brainstorming with just one participant is not ideal as it doesn't give a diverse perspective.

**Tip:** Players on the post-its should be labelled in detail. The specificity gives a deeper insight into which players are seen as nurturers or influencers. E.g. A supplier can be both nurturer and influencer, but if the participants name the supplier, it makes it clearer to plot them on the circles.

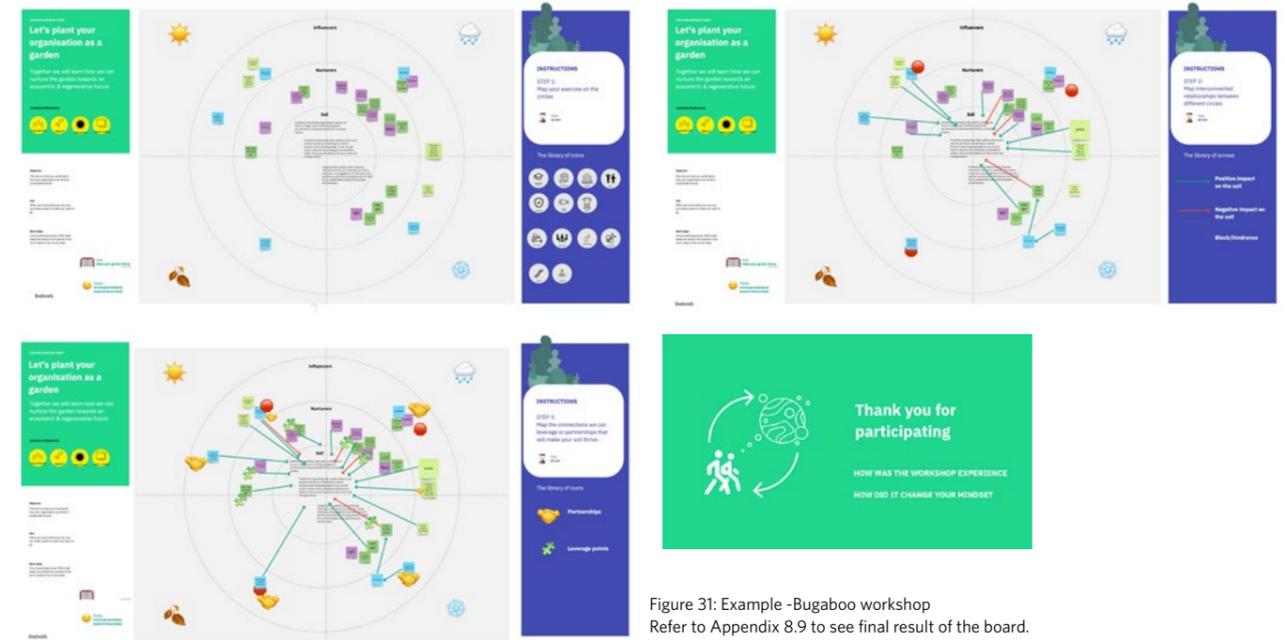


Figure 31: Example -Bugaboo workshop  
Refer to Appendix 8.9 to see final result of the board.

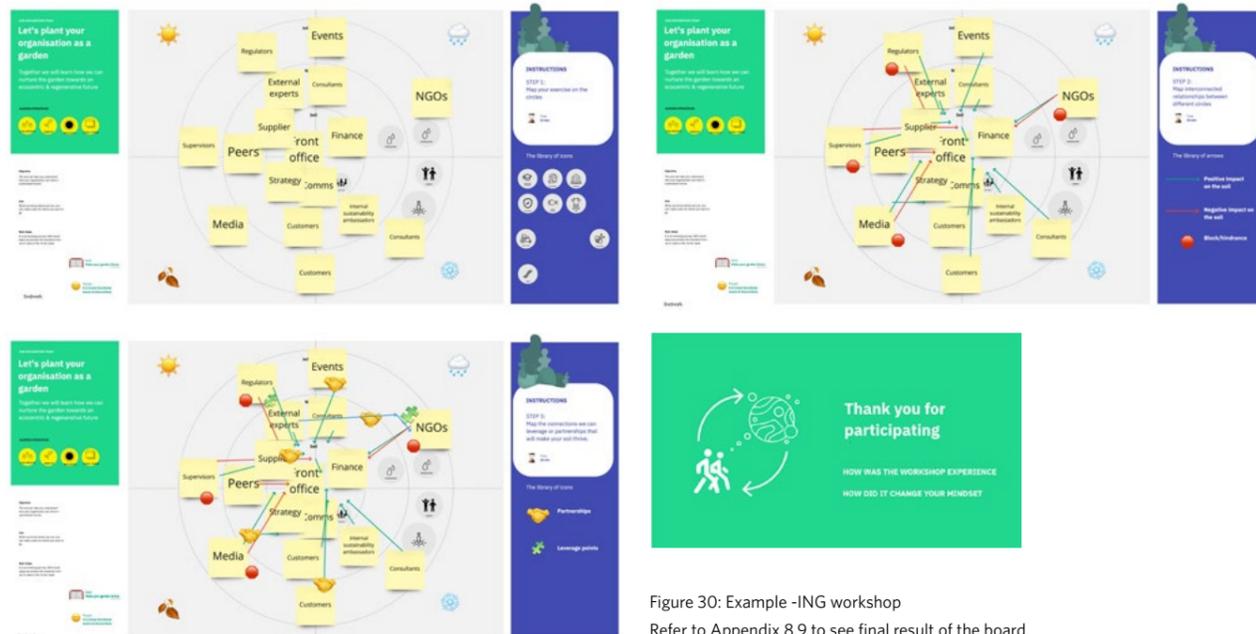


Figure 30: Example -ING workshop  
Refer to Appendix 8.9 to see final result of the board.

*'Can there be connection in multiple ways, positive negative and a blockage? Connections becomes blocks if they are framing information that is causing harm or stopping growth in the right direction.'*

Senior leadership, ING

Assumption from Step 2: The participants can see the interconnected nature of systemic thinking and their organisation's role.

All three participants are able to observe how they impact the soil and the players and vice versa. It becomes apparent that the organisational sphere of influence spreads far beyond the operations of the organisation. It is interesting to note that two participants mapped a negative influence inside the organisation to department goals. They became aware that they too had a role to play.

Once they notice the impact on the players outside of their own operations they become conscious of that player's existence on the board. E.g. One of the participants noticed that one player was not part of the board, she made sure it was added so it could be part of the organisational narrative.

Customers in all three participant boards play a positive role. They can drive and inspire the change.

**Tip:** Nudge the participants to think and connect the players outside of their organisation's operations to gain a better insight into the organisational mindset.

*'Really helps map the thoughts in your head visually. Made me think can we go beyond the boundaries of the organisation? Very helpful if we had this tool before we were setting our roadmap.'*

Participant, Bugaboo

**Assumption from Step 3:** The participants observe the deep-seeded impact of structures and are willing to discuss the next steps.

**On this board very clear partnerships are drawn as the participants are clear from the pain points from the previous board and know what needs to be done next.**

Two participants realised they didn't have a strong partnership with their suppliers and saw it as a missed opportunity. They got into a solution finding mindset and started to pinpoint where the partnership would be the most helpful and lead to the creation of innovative products that match the soil's vision. They can identify an external player as leverage to inspire the internal innovation team of the organisation. They discussed the lack of social goals and the need for them.

**Tip:** Leverage points is a common word in system design thinking; However, provide an example for the participants to help them become familiar with the concept. E.g. After providing an example, two participants expanded the definition of leverage point and added that it could also be an accelerator of change within an organisation.

*'Definitely liked the garden metaphor. Helps you think of the difference forces that can help you or hold you back.'*

Participant, ING

**Desirable:**

All three participants find the workshop easy and intuitive. All participants find the metaphor and storyline coherent and well thought through. The prep packs and exercises are a good way to prepare for the workshop and fuels inspiration for the actual day. All participants want to test this mapping exercise with their other colleagues in their organisations. The participants are curious to know what the next steps will be. **Hence, the desirability is high.**

**Tip:** A participant commented that the nomenclature of the metaphor for their organisation can be tweaked to create a sense of urgency.

**Feasible:**

*'You need to do this when you have either have a problem to solve. Start with thinking of a sustainable strategy and direction, what should be like, and who we need in order to succeed.'*

Senior leadership, ING

This tool helped a participant realise that their organisation needed to revisit their vision and define goals. The other two participants felt that this would have been ideal when the organisation was setting their roadmap. **Hence with further validation feasibility of the tool has potential.**

**Viable:**

*'Can see the connections in real time and gives a different perspective. When there is no collaboration and there is no cooperation'*

Senior leadership, Bugaboo

These participants wanted to test this tool with their colleagues to see if it could be embedded and adopted as part of their organisational framework. **Hence with further validation viability of the tool has potential.**

### 6.3 NOTES FOR THE FUTURE

- This tool needs to be tested by Livework with more clients to better understand the advantages and pitfalls of the tool.
- Continuously refine and iterate the tool based on the feedback from clients and fellow Liveworkers.
- As pointed by one of the participants the 'Soil' influences the 'nurtures and influencers' and vice versa.

**TO SUMMARISE:** 1. The assumptions are met and certain tips to improve the tool are suggested.  
2 The tool is highly desirable, and its feasibility and viability of it will be validated with further testing.



Chapter 07

# Conclude

Conclusion and future recommendations

This chapter shares observations, conclusions, reflection and future recommendations.

# Conclude

## Conclusions and future recommendations

As sustainability becomes one of the critical topics of our times, organisations seek guidance on feasible and pragmatic ways to implement the same. The collaboration between Livework and Technical University of Delft resulted in findings and pathways to research how Livework can address this need, fill this market gap, and help their current and prospective clients on this complex journey.

Sustainability is an upcoming field, many developments are being presented on eco-social goals in conferences such as COP26, UN SDGs. Numerous discoveries, ideologies, outcomes, theories, and regulations are in the process of being materialised. The ambiguity and fuzzy beginning of the transition makes it intimidating and daunting for organisations. Therefore, the research topic comes at a critical time and the goal of the thesis was to see if the existing 'The Service Architecture' approach from Livework on customer-centricity can be re-purposed/re-imagined for sustainable futures

As seen in the results, organisations play a pivotal role to play in sustainable futures (hereby referred to as SF) transition. They are under tremendous pressure from both external triggers pushing for better eco-social goals and internal challenges of being relevant in the future and meeting regulations and customer demands. Once organisations decide to act on this, they seek the right external and internal knowledge partners to point them in the right direction and help them with the assessment to make sense of the potential opportunities and possibilities and pick a focus that fits their businesses.

Nonetheless, the findings show that some organisations have made successful strides towards SF. While the sample is not representative of the larger database, the leaders identified, selected and interviewed for the study provide rich insights about their experiences in manifesting the change and actions taken to integrate into the organisations' fabric. As the research discovered, the area of influence organisational fabric's encompasses and dictates the use of resources, ways of working, structures and hierarchies over both the product and customer lifecycle. It was shown that organisations that embed this change in their organisational fabric are highly innovative

and can make structural and cultural shifts that stand the test of time. Focusing on the organisations' fabric for sustainable futures needs to be one of the key factors for further exploration and innovation.

The organisation's SF change transition has been mapped in great detail in the thesis as it gives Livework a window into the organisation's several stages of evolution. The internal organisational challenges, objectives, what they seek and actions they take to fulfil an emotional needs of the organisation. In addition, the interviews demonstrate that defining eco-social goals and integrating them into the organisations fabric can be challenging. Addressing this challenge was an ideal opportunity for Livework to assist their clients in SF evolution. Livework demonstrated potential to create a central spine based on the service architecture analysis and orchestrate the organisations' fabric towards a common goal. However, the service architecture approach cannot be taken forward as its 'customer-centric' lens is limiting to encompass the 'ecocentric' lens. Hence there is a need for adapting a new set of tools and techniques.

In the light of this discovery, it became apparent that as Livework is preparing for Sustainable Futures, it should be more reflective of a clear vision for themselves. After collaborative sessions with senior leaders, a relevant focus was chosen for Livework: a holistic strategy that brings the human side of the story and focuses on regenerative and thriving systems. This methodology assisted in building a roadmap, set of goals and guiding principles for Livework to enable purposeful decision making for the coming decade. It is important to note that this focus is still concentrated among a few senior leaders and a few employees who share the enthusiasm over the topic. To gain critical mass adoption to sustain this change, Livework needs to prepare an organisation-wide integration plan.

Regenerative system thinking is seen as the next wave of sustainability that has a holistic worldview and focuses on addressing the causes of unsustainability rather than the symptoms. It is an emerging field of study, and therefore there are many experiments on tools and techniques which need to be tested and validated further. After observing and validating existing regenerative system design solutions, the ones suitable for Livework were selected and iterated for Livework. In light of this, another consideration for Livework is that the current knowledge library is not yet equipped to meet this focus. Therefore, there is a need to develop a library of system design tools and techniques that suit Livework.

Hence, the design outcome is a tool '*workshop: organisation as a garden*' to bridge the knowledge gap and address the core challenge. The tool uses a workshop format to create dialogues between departments and groups. In addition, the tool fosters a network of relationships and enables the organisation to look beyond its own operations and understands its impact and its role in the ecosystem. Garden encompassed the interconnected cohabitation of players and actors that impact the soil. Furthermore, the garden metaphor provides a common language to work towards a common goal; thriving soil or the core of the business. Lastly, the tool gives a big picture overview and an insight into the organisational mindset, map pain points and missed opportunities and helps LW scope what needs to be addressed first and why. Therefore, it meets the defined design objectives, goals and principles.

After validation with Livework employees, it is revealed that the tool fits into their way of working and could be quickly adopted by them. During external validation of the tool, it is also important to note that no "real" Liveworker was present. While the desirability to adopt this tool is high, there is a need for further validation by Liveworkers using it with their clients. These learnings should be documented as it could guide and help the next phase of designing and iterating the next set of tools. This will also help LW find their firm foothold in SF which is uniquely thesis.

Due to the limitation of time, the interviews, sampling and validation was based on availability of participants and researchers. The findings, however, provide a pathway on how this topic can be applied in a practical and feasible manner, and enlists some emerging research questions that can be studied by an interdisciplinary team of researchers and organisations.

To summarise, given the finite resources, the urgency to accelerate sustainable future is paramount. In the Anthropocene epoch, where humans constitute the dominant driver of change to the ecology/Earth's System. (Crutzen, P. J., 2021) the onus for manifesting this change falls on us, humans. Since organisations are a complex ecosystem of humans that impact the Earth's finite resources with their

daily operations, they need to be part of the transition. Regenerative sustainability is seen as the next wave of sustainability due to its holistic vision. Nonetheless, it is an emerging field. To address this global planetary challenge, it makes sense to create a network of organisations and knowledge partners to work towards this change both locally and globally and eventually achieve this new worldview.

### **FUTURE RECOMMENDATIONS**

Looking to the future, there are some recommendations for organisations transitioning towards SF:

- Develop holistic strategies that evolve with time.
- Embed long term thinking.
- Focus on organisations' fabric to create long-term change.
- Address the deep-rooted cause of unsustainability to transition towards regenerative thinking.
- In the long-term, aim for breaking harmful mental models of organisations and give way to new structures, diverse roles for employees and different metrics for goals and targets. Prioritise investments and decision making with an ecocentric lens.

Recommendations for Livework:

- Further research to bring both academic rigour and practical validation to your focus and help find a firm foothold in building Sustainable Futures.
- Explore the current system design frameworks, tools and techniques and develop a knowledge library that is uniquely Livework.
- Foster a network of relationships and find diverse knowledge partners who can guide Liveworkers on this journey.
- Integrate systems thinking into the organisations' fabric with proof projects.
- Address deeper leverage points in the organisational system.

Recommendations for the tool:

- For the workshop to succeed, an important parameter is to have cross-functional and cross-hierarchical participants from an organisation to get diverse views.
- The tool requires further validation and iteration with diverse clients and participants from different teams and hierarchies.



Chapter 08

# Reference & Appendix

This chapter shares the sources and the behind the scenes developments.

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# Appendix

Research set-up and the results

- 8.1: Design brief
- 8.2: Research tree
- 8.3: Fact sheet
- 8.4: LSA Interview guide
- 8.5: SF Interview guide & coded interviews
- 8.6: Miro board during SF interviews
- 8.7: Analysis of opportunity areas
- 8.8: Design exploration
- 8.9: Validation workshop