# Supporting User Involvement in Landscape Architecture Through Service Design: A Framework for Evaluation

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### Thesis information

University: Aalborg University Copenhagen

Masters Programme: Service System Design

**Project:** Masters Thesis

Title: Supporting User Involvement in Landscape Architecture through Service

Design: A Framework for Evaluation

**Semester:** 10th semester

Project Period: February 2025 - May 2025

Collaboration: Thing Brandt Landskab

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Hand-in date: 26-05-2025

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### I. Abstract

This thesis explores how service design tools and methods can enhance the development of urban public spaces within the field of landscape architecture. In response to the research question

"How can we leverage service design tools and methods for the development of urban public spaces to support the landscape architect field?"

we developed a structured evaluation framework aimed at assessing both user involvement processes and user satisfaction in landscape architecture projects. Grounded in an iterative design process and supported by academic literature, the framework integrates service principles from design, post-occupancy evaluation, and program evaluation.

Through collaboration with the landscape architecture company Thing Brandt Landskab, we gained insights into the realities of professional practice identified key overlaps and differences between service design and landscape architecture. Our findings highlight that service design offers a more structured approach to stakeholder engagement and iterative development, which can benefit landscape architects in navigating complex, context-dependent projects. The proposed framework supports reflective. user-centered practice and aims to improve

collaboration, knowledge sharing, and future project outcomes.

Although the framework was not implemented or tested due to the long timelines inherent to landscape projects and the constraints of the thesis period, it represents a valuable contribution to bridging the gap between participatory design and evaluation. The adaptive nature of the framework makes it scalable and context-sensitive, especially useful for new professionals entering the field. Future work includes the development of an accessible guidebook and testing the framework in practice to validate its usability and impact.

Keywords: Landscape architecture, service design, evaluation, user involvement

### II. Acknowledgements

We would like to thank everyone who has shown us support throughout the thesis process.

We would especially like to thank our supervisor Luca Simeone, for all of his guidance throughout the project and for providing us with constructive feedback.

Another special thank you to our project collaboration partner Thing Brand Landskab, especially Signe Søe Westergaard for providing us with an interesting design brief, valuable insights and a deeper understanding of the landscape architecture industry.

We would also like to thank all of the employees at Thing Brandt Landskab who participated in our research, for their valuable input.

Lastly, we want to send a special thanks to our family and friends for all their love and support during this important time of our lives.

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### 1. Introduction

In this chapter, we will start by presenting our learning goals of this master's thesis. To continue, we will provide the context for the thesis, our collaborator and finish with the focus area where we present the design brief.

- 1.1 Learning Goals
- 1.2 Project context
- 1.3 Focus area

### 1.1 Learning objectives

This module follows the learning objectives from the Service Systems Design master at Aalborg University in Copenhagen. These objectives are divided into three categories; knowledge, skills and competences. In order to master the profession of service design, these learning objectives should be met in this master thesis project.

The official learning objectives (Aalborg University, 2025);

### Knowledge

- Must demonstrate knowledge about appropriate methodological approaches to specific study areas.
- Must demonstrate knowledge about design theories and methods that focus on the design of advanced and complex product-service systems.
- Must demonstrate knowledge about the relevant literature in the Service Design field.

### Skills

- Must work independently to identify major problem areas and adequately address problems and opportunities.
- Must analyze, design and represent innovative solutions.
- Must evaluate and address major organizational and business issues emerging in the design of product-service systems.

### Competencies

- Must master design and development in situations that are complex, unpredictable and require new solutions.
- Must independently initiate and implement design specific and interdisciplinary cooperation and assume professional responsibility.

In addition to the official learning objectives, the group members have established personal goals developed from individual motivation in order to strengthen specific skills as service designers, contribute to research and ensure a structured approach to the thesis.

- Further explore tools and methods in the service design field and gain knowledge in applying them in a new field.
- Further improve visualization skills in order to effectively communicate ideas and processes and create engaging designs.
- Contribute to research within the service design field and the interconnection with landscape architecture, ultimately contributing with a tangible outcome to enhance projects within urban development.
- Establish a structured process to ensure smooth project progress, in line with personal needs to minimize stressors and maintain enjoyment and confidence in our work.

### 1.2 Project context

The context of this project is investigating the field of landscape architecture and its tools and methods to see if the field of service design, specifically the service design approach can be applied to enhance the user involvement, and thereby the outcome of projects within the landscape architecture field.

Service design is a multidisciplinary approach which utilizes a holistic view that considers the entire service journey across multiple touchpoints. Service design is at its core user-centered and collaborative and combines design thinking with a service perspective.

Landscape architecture is an interdisciplinary approach which can be defined as "the design discipline dedicated to understanding and shaping the landscape" (Murphy, 2016, p.5)

The areas that landscape architects work with includes areas such as gardens, terraces, parks, urban squares, university campuses, residential complexes, etc.

The collaboration partner for the thesis is the landscape architectural company Thing Brandt Landskab, who are situated in Copenhagen, Denmark. Thing Brandt Landskab was founded in 2012 by Marie Thing and Kathrine Brandt and they are a small company with around 20 employees (Thing Brandt Landskab, n.d).

Since their foundation they have worked on many different types of projects in the greater Copenhagen area. They have for example worked with open public spaces such as city parks, in one such project they worked on Englandsparken where they wanted to create a space with a focus on the feeling of safety and security as well as creating a space with room for the many. They have also worked on a garden space for the seniors in Ryetbo care home, where their focus was to create an attractive space for elderly with dementia.

Looking through their body of work they have worked on everything from projects on residential complexes to strategic development plans for cities. Their core values are dialogue, cross-disciplinary work and the exchange of ideas. They have a high focus on sustainability in their work focused on the environment and the climate, which is expressed through the considerations in their concepts as well as in their choice of materials.

Their mission is to create unique solutions based on each space's individual history and qualities, considering both the space and its users.

### 1.3 Focus area

Before agreeing to a collaboration, we had a meeting with two people from Thing Brandt Landskab to see if our interests aligned and a collaboration could be interesting for both parties. During the meeting, several areas of interest were discussed and they expressed an interest in a collaboration.

Since Thing Brandt Landskab is a company that has a focus on creating spaces that are centered around the user, they showed an interest in us working with exploring how to enhance their work with urban spaces, making them more adapted to the needs of users of these spaces. We therefore decided to continue our collaboration in that direction to see if our field of service design could contribute anything new to their work in that area. This led us to the design brief:

How might we design a cross-disciplinary work process for Thing Brandt Landskab that supports user centered urban development projects?

### 2. Literature review

The literature review will explore the landscape architectural field through its history, design process and methods. Furthermore, challenges within the field will be uncovered. The service design field is introduced as well as its core principles and methods. Finally, an exploration of the intersection of service design and landscape architecture is made and reflections of how service design can support landscape are provided. This leads us to the research question we would like to answer in this thesis.

- 2.1 Landscape architecture and its core methods
- 2.2 Service design and its core methods
- 2.3 How can a service design approach contribute to the field of landscape architecture?
- 2.4 Conclusion and research question

### 2.1 Landscape architecture and its core methods

Landscape Architecture can be defined as mentioned above as "the design discipline dedicated to understanding and shaping the landscape" (Murphy, 2016, p.5)

Landscape Architecture is а multidisciplinary field that comprises elements of art, science and design. The art is the vision of landscape and involves for example and models drawings representation. The science in landscape architecture is broad and involves fields such geology, typography hydrography. Finally, design connects art and science by using design elements to create artistic representations as well as communicating the final site and project purpose. (Jellicoe & Jellicoe. 1995: Waterman, 2009).

# 2.1.1 Historical context and interdisciplinary nature of landscape architecture

The origins of human manipulation of the landscape can be traced back to ancient civilizations, for example the hanging gardens of Babylon or the terraced gardens by the Nile in ancient Egypt. These examples demonstrated an understanding and organization of nature and human interaction with it, highlighting the dual purpose of modifying the landscape for both practical means as well as more cultural and spiritual ones (Stančius & Grecevičius, 2022; Bazarovna & Dzhakhongirovna, 2023).

Even though the practice of landscape design or landscape gardening can be traced back to antiquity the use of the term landscape architecture, was first introduced in 1828 by Gilbert Lang Meason in his book "On the Landscape Architecture of the Great Painters of Italy" and was later popularized by figures like John Claudius Loudon and Frederick Law Olmsted (Waterman, 2009; Murphy, 2016). Olmsted is by many considered the father of modern landscape architecture. He applied the term to the design of urban public spaces, notably parks and expanded the field beyond private gardens, leading landscape architecture evolving, as we know it today, to include aspects such as ecological restoration, sustainable urban planning, and large-scale infrastructure projects (Bush & Wolff, 2024).

The definition of "landscape" has also evolved and has since 2000 been defined by the Council of Europe as "...part of the land, as perceived by local people or visitors, which evolves through time as a result of being acted upon by natural forces and human beings." (Council of Europe, 2000). This definition broadens the concept include not onlv arand. scenic landscapes, but also everyday environments which are shaped by cultural and natural processes.

The nature of the areas that landscape architects work with are many and varied, with different focus areas and challenges, one of the main areas landscape architects work within are urban spaces. Urban

spaces, a major area of landscape architectural intervention, are influenced by complex socio-economic dynamics, which intersect with earlier discussions on the interdisciplinary nature of landscape architecture. Urban spaces include public parks, transportation hubs such as train stations, and communal areas, as well as developments like private housing complexes or nursing homes. As previously noted, these environments require careful navigation of built and natural elements to improve the quality of life for residents and visitors (Carron et al., 2021).

Urban spaces are highly dynamic and diverse and are widely influenced by social, cultural, and economic factors (Bush & Wolff, 2024 ). The complex dynamics centered in both nature and human interaction, makes it essential to include people into urban development processes.

Landscape architecture is by its nature inherently systemic, as it requires an understanding of interconnected ecological, social, and spatial components. In landscape architecture the landscape is not viewed as isolated elements, but complex, integrated networks where a change to one part can cause a rippling effect elsewhere. (Menatti, 2017; Carron et al., 2021).

Due to its systemic nature, landscape architecture is a highly interdisciplinary field that draws on disciplines such as ecology, engineering, urban planning, social sciences, and the arts (Gülgün et al., 2014; Kullmann, 2016). This interdisciplinary approach enables landscape architects to

address challenges such as conservation of biodiversity, mitigating climate change, and social well-being, while being the tie between diverse groups of stakeholders and professionals involved in their projects (Waterman, 2009).

Social systems are also central landscape architecture. Green landscapes in urban spaces such as for example parks are not only there for ecological or aesthetic reasons, but they also provide social infrastructures that support public health, recreation, and community cohesion (Jennings & Bamkole, 2019). Access to quality green spaces has been linked to better mental and physical health outcomes, increased social capital, and stronger neighborhood ties (Jennings & Bamkole, 2019).

A unique feature of landscape architecture is its engagement with the dimension of time. Unlike static architectural structures such as buildings, bridges etc., landscapes are dynamic and constantly evolving through ecological processes and changing social practices (Bush & Wolff, 2024). This temporal dimension necessitates that there is a flexibility and adaptability in the design that can allow for spaces to mature and adapt to new uses and meanings over time (Stenseke, 2016; Roggema et. al, 2021).

In summary, landscape architecture as a discipline has, over time, evolved into a multidisciplinary and systemic practice that is integrated with ecological, social, and temporal considerations. Due to the dynamic and systemic nature of landscape

architecture, landscape architects have to balance the immediate needs of the landscape with the wants and needs of the people who use it. They need to consider the use of the landscape on a long-term basis considering both sustainability as well as adaptability to cultural and environmental changes.

# 2.1.2 The design process, tools and methods of landscape architecture

Landscape architects' design processes are used to be able to provide a solution for a project brief (Holden & Liversedge, 2014). The ideas formed are derived from the contextual nature of the site, called the genius loci, in mind. Landscape architects must be able to understand the space in relation to its function, juxtaposition and scale, as well as the enclosure of the space (Holden & Liversedge, 2014). The solution created for a space is not the only possible outcome for a project, it is the combination of the own voice of the landscape architect and trial and error since the process involves testing and revising solutions (Waterman, 2009).

The design of a landscape is not to be considered a product, rather it is an ongoing process since the space in which such a design takes place is continuously changing due to nature and society's natural evolving character (Bell, 2012). The design process within landscape architecture is therefore circular (Bell, 2012) and iterative (Waterman, 2009) and it is possible to enter this process at different

phases. For example, going from a design idea to analyze its fit into a space rather than analyzing the space before synthesizing a design idea (Bell, 2012).

The landscape architecture design process can commonly be divided into the following phases:

#### Commision

The first phase of the project is called the commission phase (Waterman, 2009). In this phase, the process is started with a design brief where the objectives and goals of the project are decided (Bell, 2012) as well as the expected activity, requirements and services to be provided (Waterman, 2009).

#### Research

The next phase is the research phase, which is about collecting information about the space that is to be worked on (Waterman, 2009). This is an important step in the process because a high-quality solution is dependent on the quality of the inventory conducted in this part of the process (Bell, 2012). This stage includes investigating the context to identify and assess critical issues, uncover required information and develop necessary concepts for the successful execution of the design (Murphy, 2016). The challenges to be solved and the standards to be met are collected into a comprehensive description for the landscape architect (Murphy, 2016).

Data gathering in this phase is often done by going through historical documents of the site, as well as going to the site and documenting the current look and feel of the space through photos, video and (Starke Simonds, sketches & Waterman, 2009). Observation is also used as a tool during this phase to get a better understanding of how time passes within the space, i.e. it provides valuable insights into how people move, interact, and engage with the space (Gehl, 2013; Starke & Simonds, 2013; Waterman, 2009). During this phase it is also recommended to interview the users of the space or public officials, about the space, to gain an understanding of the users' wants and needs as well as being a way of establishing contact with users about the project (Starke & Simonds, 2013).

### **Analysis**

The analysis phase builds on the information gathered in the previous phase understand fundamental patterns. perceptions and processes that shape the landscape (Bell, 2012). It examines the qualities of the site and the requirements of the brief to identify potential opportunities (Waterman, 2009). Understanding the key qualities of the landscape is essential for predicting changes and effectively managing the landscape and its core aspects (Bell, 2012).

A method commonly used in the analysis phase is for example, analysis of the visual character of the landscape. To catch the essence of the landscape, sketching techniques are frequently used. Mapping non-visual elements is more difficult. However, it is very important since it forms

a basis of determining its patterns and aesthetic qualities and also for future evaluation. This can, for example, be done through written description, video and tape recorders (Bell, 2012).

In this phase, user centered methods such as behavioral mapping can also be used, where the landscape architect tracks where and how people interact with landscape, which is essential for understanding social interactions movements patterns in the landscape and is used to create designs that optimize the accessibility and comfort of the users (Gehl, 2013).

### Synthesis

The synthesis phase, also known as the design stage, involves developing design concepts and evaluating them against the analysis and objectives (Bell, 2012; Waterman, 2009). This requires ongoing communication with the client or community (Waterman, 2009). Possible alternative courses of action are envisioned to evaluate the design and the best idea is selected and developed (Murphy, 2016).

A key tool is conceptual sketching, used to explore and quickly communicate spatial ideas, early in the process. Diagramming further clarifies complex relationships such as how circulation patterns, water features, and planting areas can work together (McGown et al.,1998; Waterman, 2009). Physical models, such as scale models of the site, help visualize and test how a design might function in real world

conditions (Bell, 2012; Holden & Liversedge, 2014; Waterman, 2009).

In contemporary landscape architecture, digital visualization tools including 3D modeling, CAD, VR and AR have also become essential in this phase by enabling detailed representations and immersive experiences for stakeholders (Song, & Huang, 2018; Wahlström, 2021).

Once initial design concepts are developed, landscape architects typically create presentation boards or digital presentations to convey their ideas to clients and stakeholders. These presentations may include site plans, conceptual drawings, renderings, and other visual aids to communicate the design vision clearly (Bell, 2012; Waterman, 2009).

### **Construction**

The design idea chosen is being detailed into construction documents to then be built (Waterman, 2009). This is called the construction phase. During this process, the landscape architect supervises the construction process (Waterman, 2009) to make sure that the execution is according to specifications and drawings (Murphy, 2016).

To ensure a smooth-running construction process, landscape architects use project management tools e.g Gantt charts, which visually represent project timelines, and task management software to assign responsibilities and deadlines (Waterman, 2009).

### **Operation**

The operation phase is where the landscape architect reviews and revises the solution (Bell, 2012). The completed design can be critically analyzed under use conditions to understand whether it meets the client, user and technical requirements as well as being appropriate for the environment's conditions (Murphy, 2016).

After completing the project, visits can be made to make necessary adjustments or correct possible faults, this can sometimes involve that landscape architects maintain the design completion for many years ahead since their projects evolve over time (Waterman, 2009).

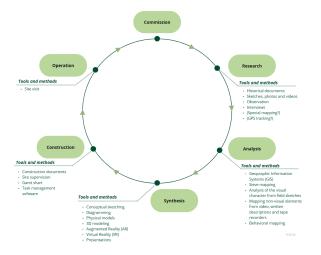


Figure 1: Illustration of the landscape architecture design process

# 2.1.3 Challenges with stakeholder involvement in landscape architecture

### Stakeholder management

A challenge that landscape architects meet is stakeholder management. Many stakeholders might be involved in a project, who all want to express their wants and needs, and who have diverse and sometimes conflicting opinions. It can therefore become challenging to agree on goals and objectives and there is a risk of conflicts happening (Bell, 2012; Li et al., 2024; Primdahl et al., 2020).

A landscape architecture project typically involve a broad variety stakeholders such as project owners, users, public authorities, and different community groups who all have their own goals and opinions about the project which can make it difficult to establish a shared objective. When stakeholders are unclear about their own goals or unaware of what landscape architects can offer, misunderstandings can arise. These issues can lead to difficulty achieving consensus on project objectives. This can potentially lead to delays, tension, or an unsatisfactory design outcome (Holden & Liversedge, 2014; Kempenaar, 2021; Li et al., 2024).

Although stakeholder management is an essential part of the landscape architecture practice, it often relies on being expert-driven, giving the designer complete authority over interpretations. Furthermore, many stakeholders, especially marginalized

community groups may lack the professional knowledge required to engage with traditional design presentations, which often rely on technical drawings or communication littered with technical terms (Raaphorst et al., 2019). This causes a risk of excluding marginalized groups and communities and reducing the inclusivity of public spaces.

To alleviate this, it is essential to establish early and open dialogue between the landscape architect and the different stakeholders, to ensure that realistic goals for the design brief are agreed upon in the early stages of the process. Effective stakeholder engagement requires landscape architects to act not only as designers but also as facilitators, mediating interests and building consensus across diverse perspectives (Holden & Liversedge, 2014; Li et al., 2024).

#### **User involvement**

User involvement is recognized as a fundamental part of creating meaningful and accessible landscapes (Kempenaar, 2021). Actively involving users can help ensure that final designs align with user needs, and can also foster a sense of ownership and pride in the space, which can support the long-term sustainability and oversight of the project (Bhati, 2023).

Despite its recognized value, effective user involvement in landscape projects remains inconsistently implemented. Many efforts are still relying on consultations or feedback sessions, which give the users very little real influence over design decisions

(Calderon & Butler, 2020). This contrasts with genuine co-design methodologies that support users to have true decision-making powers in the process. This situation is intensified by the often ambiguous and overlapping use of terms such as co-design, co-creation, and co-production, which, despite their popularity, lack clear distinctions in practice (Voorberg et al., 2015). As a result, participatory approaches may fall short of delivering genuine collaboration and empowerment.

In some cases, landscape architects are not adequately trained to lead participatory processes or facilitate co-design sessions that genuinely empower users (Anuar & Saruwono, 2012, Kempenaar, 2021). Bridging the gap between professional expertise and the experiences of users requires both methodological tools and an awareness of how power dynamics and communication can shape participatory Without outcomes. inclusive and well-structured frameworks for user involvement, designs may fail to reflect the diverse needs of communities, ultimately undermining the goal of creating truly user-centered spaces (Raaphorst et al., 2019).

This is however an area that is seeing an increasing focus and landscape architecture companies are becoming increasingly aware of the importance of community engagement. However, current guides of community engagement are not written with landscape architecture in mind and are missing information relevant to architects (Siler, landscape 2023). Professional culture and project structures further contribute to these challenges. As mentioned, traditional design processes often prioritize expert-driven approaches, and clients may not prioritize user involvement unless prompted by the landscape architect (Kempenaar, 2021).

In summary, stakeholder management and user involvement are key challenges within landscape architecture. Projects can involve stakeholders with conflicting interests, making consensus difficult and risking exclusion of marginalized groups. Traditional expert driven approaches and technical communication can prohibit inclusive participation. Effective involvement requires landscape architects to act as facilitators and to establish early and open dialogue. Although user involvement is vital for meaningful, sustainable design, it is often surface level. True co-design is rare due to lack of training and unclear methods. The field increasingly recognizing the importance of inclusive, user centered approaches but practical tools and guiding are still lacking.

### 2.2 Service design and its core methods

### 2.2.1 What is service design?

The term service design was first introduced by Lynn Shostack in 1982 (Interaction Design Foundation, 2024). She suggested concept of service the emphasizing the need for blueprints, businesses to map out service processes and their interactions within a company (Interaction Design Foundation, 2024). field Since then. the has evolved significantly throughout the 1990s and 2000s, drawing from design methodologies and expanding its application across a wide range of industries (Stickdorn et al., 2018).

Service design can be defined as a process through which designers create meaningful experiences and sustainable solutions for both users and service providers in diverse contexts (Interaction Design Foundation, 2016). It focuses on service systems which are complex networks of processes, economic entities and resources that support service interactions (Katzan, 2011). The aim is to improve both the quality of the service and the interactions between users and providers by examining all elements within the system: activities, people, communication, infrastructure and channels (Interaction Design Foundation, 2024).

The field is inherently interdisciplinary, integrating methods and tools from various disciplines such as ethnography, interaction design and management sciences (Interaction Design Foundation, 2024;

Stickdorn et al., 2012). A core principle of service design is that services are co-created through interactions between users and providers. Consequently, effective services must be intentionally designed to deliver real value to those who use them (Polaine et al., 2013).

The design process is iterative and driven by a mindset that is solution-focused, collaborative and hands-on (Stickdorn et al., 2018). While the process may vary between designers and projects, it often follows a common structure illustrated by the Design Council's Double Diamond model (Design Council, n.d. -a).

In practice, the combination of tools, methods, mindsets and shared language in service design helps make implicit knowledge, assumptions and perspectives explicit. This not only fosters alignment among stakeholders but also sparks meaningful conversations and drives the co-creation of effective, user-centered solutions (Stickdorn et al., 2018).

### 2.2.1.1 Principles in service design

Service design is defined by a set of principles that distinguish it from other design and management disciplines (Arico, 2018). While some of these principles overlap with those in related fields, they collectively form a unique foundation for designing services (Stickdorn et al., 2012). According to Stickdorn et al. (2018) these principles are human-centered, collaborative, iterative, sequential, real and holistic.

#### **Human-centered**

Service design is human-centered (Penin, 2018). This principle emphasizes the importance of considering the needs, wants and perspectives of all people impacted by the service, ensuring that the users are central throughout the design process (Penin, 2018). This principle is widely recognized as a defining characteristic of service design, as reflected in numerous publications where both practitioners and academics refer to its human centeredness (Arico, 2018).

Central to human centered design is empathy, which involves understanding the emotions and experiences, needs of stakeholders (Arico, 2018). Empathy enables designers to develop solutions that truly reflect the wants, needs capabilities of users and service providers. This approach is often described as stepping into someone's shoes (Arico, 2018).

Service designers use a diverse set of ethnographic methods to enable empathic understanding such observation. interviews, focus groups, personas and journey mapping (Stickdorn et al., 2018). In comparison to traditional ethnography, design ethnography is often more time sensitive, requiring designers to adapt ethnographic methods to the constraints of the workplace (Marquez & Downey, 2015).

#### Collaborative

Co-creation is key in service design (Marguez & Downey, 2015). This principle emphasizes that the design process should inherently collaborative, be engaging stakeholders from diverse backgrounds and functions at every stage in the process (Stickdorn et al., 2018). It involves participatory approaches, where stakeholders contribute actively and continuously to the design through workshops, interviews ongoing and dialogue (Penin, 2018).

The collaborative mindset in service design acknowledges that services often involve complex interactions among various groups (Arico, 2018). Co-creation helps optimize resources, ensure alignment across diverse stakeholders and address potential barriers to successful implementation (Arico, 2018). Stickdorn et al. (2012) note that by placing the customer at the center of the process, designers must also account for the diverse needs and expectations of multiple customer groups.

#### **Iterative**

Service design is inherently iterative, involving continuous exploration, adaptation experimentation and until finding a suitable solution to implement (Stickdorn et al., 2018). This approach is about allowing designers to test ideas and learn from failures to be able to adapt their solutions accordingly (Stickdorn et al., 2018). Arico (2018) states that iteration fosters an environment where experimentation leads to valuable insights.

Karpen et al. (2017) highlights that this experimental nature stimulates creativity and encourages learning without the fear of failure and therefore allowing ideas to grow.

### Sequential

Service design emphasizes the importance of visualizing services as a sequence of connected activities (Stickdorn et al., 2018). The ability to represent these activities through visual narratives, such as journey maps and storyboards is critical for designing innovative services (Penin, 2018).

Time plays an important role in service design as both users' needs and service workflows evolve over time. By mapping out these temporal aspects, service designers can ensure that the service meets user expectations and is efficiently managed by service providers (Penin, 2018).

#### Real

Another fundamental principle of service design is making the intangible tangible (Marquez & Downey, 2015). Services are often abstract and intangible so they need to be anchored in reality through researching, prototype and testing in real-world contexts (Stickdorn et al., 2018).

A touchpoint is moments when users interact with the service (Marquez & Downey, 2015). Services rely on touch points as they serve as material evidence of the service value, helping to build trust and to make the experience more tangible (Penin, 2018). Karpen et al. (2017) describe this as "explicative and experientially

explicit" emphasizing that through visualizations, prototypes and storytelling, designers help stakeholders experience and understand the service in concrete ways.

#### Holistic

Service design is holistic, meaning it views services as part of the larger service ecology that includes both the user experience and the underlying systems supporting it (Marquez & Downey, 2015; Stickdorn et al., 2018). Designers have to understand the service process within a broader context to enable recognition of the interconnected user behaviors, service provider operations, touchpoints and service sequences (Arico, 2018).

This holistic perspective is crucial when evaluating and assessing a service to be able to better make informed decisions from the users perspective (Marquez & Downey, 2015). It involves systemic thinking which considers how different parts of the service interact over time and how changes in one area may influence others. This approach enables designers to assess the service complexity, uncover dependencies and make more informed decisions from the user's perspective (Marquez & Downey, 2015). It ensures that users experience the service consistently while also maintaining internal consistency for seamless integration of back-office processes (Penin, 2018).

Tools such as system maps and service blueprints are commonly used to represent this holistic view and ensure that the service experience is consistent across all touchpoints and internally coherent for service providers (Stickdorn et al., 2018).

### 2.2.1.2 Distinguishing service design from related fields

Service design has been developed at the intersection of multiple disciplines, sharing similarities with user experience (UX) design, product design, systems design, and participatory design. Service design however, established a distinct has. theoretical identity, shaped by its focus on and integration of co-creation, systemic thinking, and the design of service ecosystems (Saad-Sulonen et al., 2020; Stickdorn et al., 2018). These qualities allow service design to address the complexity of modern services in a way that is fundamentally different from similar design fields.

The value of a service does not solely lie in the products or with the service provider. Instead, value created is through participatory dynamics that involves a constellation of stakeholders. The users or customers are the primary value creators through combining resources from, for example knowledge, products and infrastructures produced from various actors. This perspective shifts the focus from the service provider or designer creating value through implementation to the users themselves, who generate value by integrating service propositions within their context (Saad-Sulonen et al., 2020; Vargo & Lusch, 2008).

The designer's role is therefore to support users and communities' capabilities in defining and co-creating their own solutions. Rather than the designer creating value, they become an active partner, engaging users in participatory processes and co-creation. Users are no longer passive recipients in the creation of solutions in design but rather active contributors to the creation process (Saad-Sulonen et al., 2020).

Service design adopted this approach from participatory design, which is a method incorporating the user in the design process, just like service design (Marquez & Downey, 2015). Participatory design is similar to service design in that it uses ethnographic methods to understand the needs of users and their interactions with their environment. They both have a human centered approach and share a similar toolkit, including tools such as journey maps, co-creation, ethnography and blueprints (Saad-Sulonen et al., 2020).

However, service design expands on this by incorporating a systemic approach that allows for a broader, interconnected perspective (Saad-Sulonen et al., 2020; Stickdorn et al., 2018). Service design zooms in on specific touchpoints while also considering the entire ecosystem in which they exist. This distinction allows service out the service designers to map experience at a macro level, providing insights into the full user journey and the underlying systems supporting (Saad-Sulonen et al., 2020). By considering both specific touchpoints and the entire ecosystem, service designers can ensure a cohesive service experience which ultimately provides a more holistic and seamless user experience (Marquez & Downey, 2015).

By integrating tools such as ecosystem mapping, stakeholder mapping and user journeys, service design scales up its focus, contributing not only to the creation of better services but also to democratic infrastructure and governance (Saad-Sulonen et al., 2020).

# 2.3 How can a service design approach contribute to the landscape architecture field?

In this section, we explore the potential of service design to address challenges within the field of landscape architecture. By reviewing literature and professional reflections, we aim to identify areas where a service design approach could offer valuable contributions.

The systemic and user centered approach of service design draws parallels to landscape architecture. as discussed previously. Both service design and landscape architecture operate with awareness of context, interdependence, and temporality. Landscape architecture designs physical environments to support ecological resilience, human well-being, and aesthetic coherence across different scales, from private gardens to large urban public areas (Bush & Wolff, 2024; Murphy, 2016; Waterman, 2009). Similarly, service design creates services that must function across multiple touchpoints, taking into user journeys, and account organizational systems. Just as landscape architects consider the layered interactions between terrain, vegetation, hydrology, and human use, service designers map the interactions between users, technologies, infrastructures. and organizational dynamics.

Moreover, both disciplines recognize that design interventions are situated within living, evolving systems. In landscape architecture, a park or urban landscape continues to grow and change after implementation, shaped by ecological processes and human activities (Bush & Wolff, 2024; Carron et al., 2021; Roggema et. al, 2021; Stenseke, 2016). Likewise, service design acknowledges that services evolve through ongoing user interactions, requiring designs that are flexible. adaptable, and capable of supporting emergent behaviors over time (Stickdorn et al., 2018).

However, as scientific literature search does not uncover much about the intersection of service design and landscape architecture, practitioners and experienced professionals from the field of architecture share their reflections and perspectives. Here, we are presenting those blog posts, where they reveal the need and relevance of service design in spatial design contexts.

### **Crafting spatial experiences: Service Design in Architecture**

Ankitha Gattupalli, an Indian architect and writer is engaged in the intersection between spaces, ecologies and communities in her work. Gattupalli (2023) believes that architecture should move beyond the creation of structures and aim to build emotional connections through meaningful experiences. According to her, this requires stimulating users' senses and engaging them on a deeper intellectual and emotional level.

To be able to design such an experience in a space, we need to consider how the space is being used and what service or interactions they facilitate. She gives the profession critique for being too driven by what she refers to as the "designer's ego", which can lead to solutions that overlook the actual needs of users. She claims that architectural design often theorizes experience through built form but lacks a structured methodology for understanding and designing those experiences which is something that service design can offer (Gattupalli, 2023).

Despite the recognized value of inclusive design practices in landscape architecture, effective user participation is often inconsistently implemented and frequently limited to consultations or feedback sessions where users have little real influence (Calderon & Butler, 2020). Furthermore, landscape architects often receive limited training in participatory methods and community engagement, resulting in a gap between professional expertise and the lived experiences of users (Anuar & Saruwono, 2012; Kempenaar, 2021). These challenges are compounded by traditional professional cultures that prioritize expert-led processes and the use of technical jargon, which can unintentionally marginalize users (Raaphorst et al., 2019). Much like Gattupalli's critique of architectural practice, literature revealed that landscape architects often see themselves as experts with specialized knowledge, which can lead to decisions being made with limited input from users, sometimes disregarding their needs (Anuar & Saruwono, 2012).

Gattupalli (2023) envisions a future for architecture that is more focused on spatial experiences that respond to people's

emotional needs. She proposes approach which she calls spatial-service design, where user insights are integrated alongside client requirements to inform spatial design parameters. This includes mapping user journeys for different user types to plan every interaction step by step. This approach can help with structuring the spatial experience to align with users' emotional needs. For example, arranging within touch points а space and strategically arranging how people move through it (Gattupalli, 2023).

While traditional architectural approaches may be sufficient for small scale and single client projects such as private homes, Gattupalli (2023) argues that in more complex environments such as hospitals or public institutions with multiple user types, cross sections of cultures and service flows, the experience driven approach should be considered. This is also true for urban spaces and thus the landscape architecture practice. Here, the tools and mindset of service design can enhance the planning and design process by centering users and structuring interaction spatially and emotionally (Gattupalli, 2023).

### **Service Designing Architecture**

Laura Wiess is a strategist, facilitator and professional coach. A former architect and practice director at IDEO (Weiss, 2019). She has also previously served on the American Institute of Architects Strategic Council, which is a think tank that is dedicated for forward thinking research in the architect field (The American Institute of Architects, n.d.). Wiess (2019) writes about the topic of

service design in architecture in ArcCA Digest 2019, the journal of the American Institute of Architecture in California.

Wiess (2019) writes about the value that the architect provides where she argues that they should be seen as service providers rather than builders, as they create entire service journeys through the built environment. The quality of interactions and experiences within a space will affect its perceived value. However, as it is today, architects focus more on the built artifact rather than the interactions of the built environment (Weiss, 2019).

Wiess (2019) emphasizes that architects operate within complex ecosystems, engaging a diverse set of stakeholders and navigating challenging decision making processes. She highlights that while architects are expected to take on a leadership role, they are not trained or recognized for this responsibility. This insight aligns with challenges found in the landscape architecture literature, where stakeholder engagement and alignment around goals are frequently cited problematic (Bell, 2012; Holden Liversedge, 2014).

She compares this to service design, where user participation is essential in shaping an experience. By integrating service design principles, architects can enhance the value they deliver, not only by designing physical spaces but also the interactions and experiences within them (Weiss, 2019). This was also recognized by Gattupalli (2023) where she critiqued the lack of user centricity within architecture and the need

for more emotionally grounded design processes.

Ultimately, by integrating a service design approach, architects and by extension landscape architects, can adopt a more holistic, user centered perspective to the built environment. This is in line with Gattupalli's proposed spatial-service design approach, which emphasizes mapping user journeys, aligning spatial experiences with emotional needs and designing intentional touchpoints. Similarly, Weiss highlights how architects operate within complex service ecosystems, yet often lack training in user involvement and facilitation. perspectives point to a growing recognition of the value of service thinking in spatial design. Together, they suggest that service design can provide not only tools but also a mindset shift to support more inclusive, adaptive and meaningful landscapes.

### 2.4 Conclusion and research question

This literature review has explored the history, approach, and core methods of landscape architecture and service design, with a focus on their intersections and potential synergies. Landscape architecture is a discipline that includes knowledge from ecology, engineering, social sciences, and the arts to address complex environmental and societal challenges.

Urban spaces are one of the main spaces landscape architecture works in. They are shaped by social, cultural and economic dynamics. Landscape architecture influences how users experience these environments, while people's behaviors and interactions continuously shape the spaces in return. This highlights the importance of involving users in the design and development of urban areas.

The design process in landscape architecture is iterative cvclical. and such encompassing phases commissioning, research, analysis, synthesis, construction, and operation. Significant challenges identified within the include both complexities stakeholder management and limitations of current user involvement practices, often constrained by professional cultures and traditional design frameworks.

Service design is a discipline focused on creating meaningful, sustainable service experiences through human-centered, collaborative, and iterative approaches.

Service design emphasizes the systemic nature of services, viewing them as complex ecosystems involving multiple touchpoints, stakeholders, and temporal dynamics.

This literature review explores how the methodologies and mindsets of service design could contribute to address the architecture. challenges in landscape specifically within user involvement. Professionals in architecture argue for a greater emphasis on user experience, emotional engagement, and structured participatory processes in spatial design. Service design tools and methods, such as journey mapping and stakeholder co-creation, can potentially enhance the landscape architecture design process, particularly in fostering user-centered, adaptive, and systemic solutions.

The literature review demonstrates that landscape architecture and service design. although emerging from different historical and disciplinary contexts, share a strong methodological similarity. Both disciplines have a systemic nature, a focus on interdisciplinary collaboration, and temporal sensitivity in the design process. As landscape architecture faces challenges related to stakeholder management and the effective integration of user participation, service design can contribute methods and tools that could enhance the landscape architecture practice by embedding a more structured and collaborative approach to user engagement. The service design emphasis on mapping user experiences, visualizing service ecologies, and fostering co-creation processes could enhance traditional landscape architecture workflows.

Incorporating service design principles into landscape architecture could lead to more resilient, inclusive, landscapes that better meet the needs of diverse communities and ecosystems over time. We therefore continue this project in line with the following research question:

How can we leverage service design tools and methods for the development of urban public spaces to support the landscape architect field?

# 3. Methodology

This chapter presents the Double Diamond methodology which is used to guide the development of a service design driven innovation within the field of landscape architecture, specifically in the context of urban public spaces. The framework enables a structured approach using service design tools throughout the phases: Discover, Define, Develop and Deliver. In addition, the research process is outlined to explain the steps and methods used throughout the project. Reflections on the limitations of using this methodology in this context are also included.

- 3.1 The design process
- 3.2 The research process

### 3.1 The design process

We choose the Double Diamond framework as a visual and structured guide for our design case. Developed by the Design Council in 2005, this framework has become universally accepted and has shown significant results to diverse design processes (Liang et al., 2024). The framework emphasizes the importance of understanding and addressing user needs. It is structured through two diamonds, representing divergent and convergent thinking, guiding the designer to explore wide before focusing in and taking action. The framework is built up in four phases: Discover, Define, Develop and Deliver (Design Council, n.d. -b).

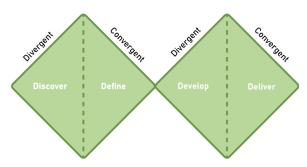


Figure 2: Illustration of the Double Diamond

The framework has been criticized for failing to communicate its iterative nature, rather navigating the designer to work in a linear way which might limit creativity and flexibility (Liang et al., 2024). Kochanowska and Rochaka Gagliardi (2021) is acknowledging its clarity, however giving it critique for being over simplified in relation to the design process, which may not completely address the complexities of design challenges today.

Having previously worked with the framework and being aware limitations allows us to use the double diamond as a foundation. However, being aware of that, we need to fit the framework so that it makes sense in our process. Since we are both very familiar with this framework, it allows us to navigate the project with a shared understanding and aligned expectations. This common ground helps us frame the process in a consistent and collaborative way as well as easily communicate our process to Thing brandt Landskab.

### 3.2 The research process

The official start of the research process was in the beginning of February 2025. However, the thesis topic and collaboration had been decided in December 2024. The research process therefore already started in November 2024 in order to figure out the theme of our thesis. When officially starting the research process in February, we knew that this was going to be an extensive research period since we needed to explore architecture. landscape a completely undiscovered field for us. A large part of our desktop research and literature review was therefore dedicated to finding out more about landscape architecture.

In our design case, our Discover phase focused on getting to know our problem space and specifically getting to know our collaborator Thing Brandt Landskab and their work ways. In the Define phase, we

were making sense of our gathered research to be able to redefine our problem statement. In Develop, our focus was to explore potential ideas, co-create, test and iterate before choosing the most promising solution. In Deliver, we refined and delivered our solution.

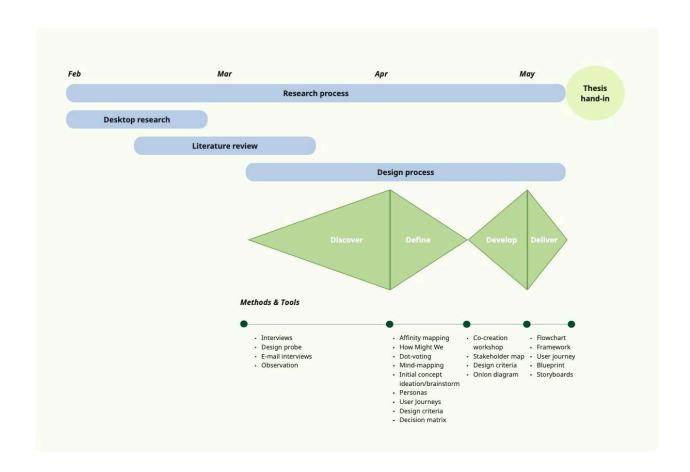


Figure 3: Illustration of our process working with the double diamond

# 4. Design Case

This chapter presents the design process carried out in collaboration with the landscape architecture firm Thing Brandt Landskab. Following a Double Diamond structure, the process is divided into four phases: Discover, Define, Develop, and Deliver. Each phase contributed to the development of a tailored evaluation framework for user involvement in landscape architecture projects. The chapter outlines how we investigated current practices, identified needs, co-created ideas, and iteratively developed a solution grounded in both research insights and the realities of Thing Brandt Landskab's day-to-day work.

- 4.1 Discover
- 4.2 Define
- 4.3 Develop
- 4.4 Deliver

### 4.1 Discover

In the Discover phase, we wanted to understand the role of the landscape architect and their education, Thing Brandt Landskabs ways of working with user involvement and its difficulties. User involvement will be mentioned throughout the thesis and refers to any involvement of the user in a project while user participation refers to the user actively participating in the user involvement practices. We chose to focus on user involvement since the literature review revealed that there are many levels of involvement occurring in the landscape architecture field. To focus on involvement will therefore give us the broadest image of how users are included in landscape architecture projects.

We conducted four semi-structured interviews, one interview with the head of studies at UCPH and three interviews with employees at Thing Brandt Landskab including an associate partner, an intern and a newly graduate. In addition, we gathered more data by creating a design probe that we put up at their office space for the employees to interact with and provide us with information. We sent out an email with qualitative questions to all of the employees and lastly, we joined a walk & talk and workshop they were part of facilitating.

- 4.1.1 Expert interviews
- 4.1.2 Interviews with employees
- 4.1.3 Design probe
- 4.1.4 Qualitative questions
- 4.1.5 Walk & Talk and workshop
- 4.1.6 Key takeaways
- 4.1.7 Limitations of the discover phase

### 4.1.1 Expert interviews

To further investigate the inclusion of users in the landscape architecture field we decided to conduct different in-depth interviews with different stakeholders. In-depth interviews is a method where you are focused on a specific relevant stakeholder or expert in order understand diverse perspectives on a particular subject (Stickdorn et al., 2018). These interviews are valuable understanding more about experiences, expectations, processes. concerns, attitudes, ideas and more. This type of interview can also be supported through co-creating objects such as mind maps, personas or system maps (Stickdorn et al., 2018).

## 4.1.1.1 Expert interview: Head of studies for Landscape Design masters at UCPH

The literature review revealed that while there, in the literature, is a great awareness of the importance of user involvement in landscape architecture, there is not a lot of literature outlining structured processes for how to most efficiently include that user involvement into the field. To further investigate how user involvement is organized and used within the landscape architecture education, we arranged an interview with Anne Tietjen, head of studies at the landscape architecture master's at the university of Copenhagen. The aim of the interview was to explore how user involvement is practically used in the landscape architecture education, and how

much awareness there is in the education surrounding the topic. The interview was a semi-structured interview, conducted online. The interview was conducted in danish and has been translated to english.

To analyze the results of the interview, we used affinity mapping, which is a method used to organize insights from the interview into clusters. We started by individually doing an initial organization, and then we collected our thoughts together and organized them into different categories.

The mapping revealed the following insights:

There is a great deal of emphasis on user involvement in the landscape architecture education, she explained that they, on the masters, have several courses that involve users and a client brief, this includes courses such as "Health Design" which has a focus on creating landscapes that support the well-being of e.g. people with ADHD, PTSD, autism, etc. Another course that includes user involvement is "Urban Intervention Studio" which has a focus of co-design and dialogue with users on site.

When asked about the challenges that the students face, she mentioned a gap between how they learn and the types of projects they work on in their education in comparison to the real projects they face in studios after their graduation. The new graduates cannot immediately handle the job as effectively as their co-workers who have been working for several years. Therefore the education emphasizes the importance of having a study job, and

doing an internship, so that they have a better foundation for understanding how the projects are conducted in a real work environment. Anne emphasized that even though this is a challenge it is not something that they can solve without compromising the education.

"... we have to prepare them for the fact that they can get a job and they can work in a design studio, on the other hand, I really think that we have a responsibility in educating the landscape architects of the future, who can add something more and something different"

The interview with the head of studies revealed that there is a great awareness of the importance of user involvement in the education and they try to involve stakeholders in projects on the masters. The education also has a focus on educating the landscape architects of the future, and therefore focuses on adding something more that the students can contribute with to the field when they start their work. The interview did not reveal the proper extent of the work with users, nor the specific methods that are used when engaging with users, which could be interesting aspects to explore further.

### 4.1.1.2 Expert Interview: Associate Partner at Thing Brandt Landskab

To gain a better understanding of how Thing Brandt Landskab works with involving users, we arranged an interview with Signe, who is an associate partner and landscape architect at the company. The interview was semi-structured, and its purpose was to map how user involvement practices are used during the different stages of their design process. The interview was conducted in danish and has been translated to english. For analyzing the data gathered from the interview we used affinity mapping following the same process as with the other expert interview.

The affinity mapping revealed the following insights:

#### Methods and extent of user involvement

During the interview Signe explained several of the methods of user involvement they use. She explained that they often do what she called "café meetings" for groups of stakeholders. At these meetings they typically prepare a presentation, setting the context, and then they divide the attendees into smaller groups who have to discuss or dot-vote on a specific issue or suggestion. This could be used when choosing a design language e.g. sharp edges or soft curves.

Another method that was mentioned was doing study trips where they for example took a user group on a bus ride around the city to look at spaces that were similar to the space that was currently being worked on. This allowed the users to better be able to visualize different possibilities for their own space.

Aside from the café meetings and study trips, she also mentioned different types of workshops they had done, e.g. different workshops with children, that involved children playing with different opportunities within the space. These workshops also had a focus on helping the children

visualize changes to the space to better be able to understand what would be possible.

Lastly, a method of user involvement she mentioned them using a lot was informing the users. This method is used when there from the project owner side is not reached an agreement for further user involvement. It is also used later in the design process when it is difficult to make changes to the design.

User involvement is mainly done in the initial design phases; research, analysis and the first part of synthesis. The reason that it does not extend beyond the first part of synthesis is that this is where the design begins to become more concrete and making changes during this part of the process can cause a ripple effect in terms of overall changes that need to be made. As a way of trying to involve users during the second part of synthesis, she explains that they sometimes bring the users a choice, e.g. of three types of material, that they can choose from. In this way they can still be involved a bit, it is however, very rare that this occurs, and the majority of projects will not have user involvement during this stage of the process.

# Thing Brandt Landskabs motivation for user involvement practices

When discussing the different methods of user involvement, it was clear that it is something that they are very aware of and something that they try to incorporate as much as possible into their work process as they can see many benefits from including the users. One major benefit of user

involvement is it makes the users happier with the end result. Signe mentioned that it is especially important to involve users when dealing with spaces where people live or work, and that user involvement can lead to important insights in these cases that may be overlooked otherwise.

"Well, we don't live there, so we don't experience the rhythm of the day. We do not experience the changing of the seasons, but they know where the good sunny corner is and where it is always windy, and where it is that the young people gather and all that is worth its weight in gold for us to know."

They use user involvement as a way of helping people see opportunities they didn't know existed, and they try to guide and influence the user based on their expertise as landscape architects, so that they in the end can make more informed decisions.

"... if you can influence them, and like sow some seeds, ..., because it is respecting that it is also a process for them,..., about helping them on their way to seeing the opportunities they didn't know, I think is kind of key."

### Thing Brandt Landskabs reflections on user involvement tensions

There are a lot of challenges that can arise when working with users, e.g. it can be difficult for them to gain access to a broad representation of a user group. This can be caused by different factors, for example it can be difficult to reach users due to their lack of time and interest. There is also a tendency for it to be mainly the "nay

sayers" that show up to hearings, giving them a disproportionate amount of influence. Therefore they have to be very aware of the representation of the user group, so it does not lead to an inaccurate representation of the needs of space.

Another challenge when working with users is communicating the complexity of a project in a way that translates to users with prior knowledge of landscape no architecture. This applies to communication gap that can arise when making users understand the level of influence they can have on a project, which is something they have to have a lot of focus on when talking to users to prevent misunderstandings that can lead to frustrations. The challenge with communication also applies when trying to make the user understand the suggestions for changes to a space. Users sometimes take examples too literally, e.g. they show a reference image to the user of a specific swing, and the users expect that exact swing. They therefore have to be very aware of how users interpret things they say so they can address misunderstandings on the user's part when they occur.

"... we don't notice it in the situation, because people are sitting and talking and nodding, and I also sincerely believe that they think they understand it. But sometimes ... we discover that they haven't necessarily understood, even though we think we have explained (it) ... And it's probably just an acknowledgement that it's hard to understand."

"...you just have to be very aware of that when you go into it, what kind of space you go into and do user involvement, it's the language, the way you involve them and things like that."

The challenge with miscommunication is furthered by the fact that it can be difficult for the users to visualize the designs and possible changes to a space. This is one of the reasons they try to include reference images, as well as why many of the workshops they host are centered around helping the users' visualization. E.g. at one of the workshops they held with kids at a school they measured out the space they had to work within, so that the children could have a better understanding of the scale they had to work with.

"The biggest problem is that people have a hard time visualizing what it's going to look like or the proportions."

She mentioned that it is important for them that they are very honest with users about the amount of influence they can have. This is especially true when the users are being informed, but don't actually have any real influence.

"...it is just really an exercise in being clear, i.e. where do you have influence and where are you being informed? And I think it's quite important that you talk to users about this."

The insights from the interview data provided us with detailed information of Thing Brandt Landskabs approach to user involvement in their design process. The variety of methods used includes café

meetings, study trips, workshops with targeted user groups, and informative sessions illustrates a strategic and intentional engagement with users. The user involvement is primarily implemented during the early stages of the project, specifically during the research, analysis, and initial phases of synthesis.

The insights highlight their motivation for including users in their projects, since engagement with users is seen as a way of enhancing the potentially functionality, and overall satisfaction with the final design. Particularly in projects involving residential or workspaces, the lived experiences of users are regarded as critical sources of information that cannot be accessed through professional observation alone. They also emphasize the importance of managing user expectations through clear and honest communication regarding the extent of users' influence, especially in cases where users are informed but do not possess decision-making power.

The user involvement process is not without challenges, as it can be difficult achieving broad and representative user participation. They are often constrained by issues such as users' availability or willingness to participate. This can cause a risk of skewing the representation of broader user needs, which is something they must be very aware of when dealing with user involvement. There also exist communication challenges regarding users' ability to understand complex design visualize concepts and spatial transformations. Misunderstandings can

arise despite their efforts to use reference images or facilitate hands-on engagement, as users may interpret visual materials too literally or fail to grasp scale and proportion effectively.

These challenges make careful mediation by the design team crucial. Thing Brandt addresses these issues by using strategies such as participatory visualization exercises and maintaining awareness regarding how users interpret communication.

### 4.1.2 Interviews with employees

From the expert interview with the head of studies at the Landscape design masters at UCPH, we gained an understanding of the emphasis of user involvement practices in education. However, not revealing the proper extent of the work with users nor specific methods that are used when involving users. From the expert interview with an associate partner at Thing Brandt Landskab, we gained an understanding of the company's wide focus and motivation for user involvement practices within their projects. We were therefore curious to hear more about what interns and recent graduates at the company have been taught during their education about user involvement practices and how they use it in their current work to better understand the extent to which they were taught user involvement and their view on it.

# 4.1.2.1 Employee interview: Bachelor student & intern

We held a semi-structured interview with Pauline who is an intern at Thing Brandt

Landskab. She currently studies a bachelor in landscape architecture at UCPH. She explained that she hasn't had much user involvement within the courses of her bachelor and she believes that there will be more of it in the masters, depending on the direction you take. In the case of doing user involvement, she said the methods have so far been "served" to the students, hence not planning and implementing methods for engaging users within a project.

"...it's often served for us. Then we have an interview gotten or ... we are going to be presented to some people that the school has picked out. So it's not that much about us using a method. It's more like the school has some methods and then we are given (them)."

How much user involvement practice a landscape architect learns seems to be based on interest and hence choices of courses within the masters education. The expertise of the landscape architect when graduating can therefore differ slightly. From our conversation with Pauline, we got the impression that there isn't a large emphasis on user involvement practices overall in the bachelor education. Despite having limited amount of practice in user involvement from her education, she acknowledge the importance of it in the landscape architecture practice;

"Landscapes are for everyone, so I think it is important to ask everyone"

During her time as an intern she has been part of user involvement practices to a

larger extent than in her studies and has joined a broad range of user involvement sessions such as walk & talks and observations. She reflected that landscape architecture has moved as a field from working on private gardens to more public spaces, which can be why user involvement has become more important and is used a lot at the company. In one project, she explained that the company will be doing a walk & talk and a workshop together with a municipality. This user involvement session is the end delivery of this specific project from their side. This speaks to the importance of knowing user involvement methods and how well they fit into its context.

She also expresses that the role of the landscape architect is very broad and that they have to know a little about a lot. Cross disciplinary work is therefore necessary. They are for example not specialists in user involvement but they know about it and because of their broad knowledge, they can easily work together with other fields and professionals.

#### Reflections on user involvement tensions

Her experiences with user involvement practices witnesses some difficulties in balancing needs from users with a range of other design demands such sustainability, biodiversity and economic constraints. While landscape architects aim to understand and incorporate how users envision the space, they must also translate their often idealistic ideas into realistic, feasible responsible and ecologically solutions.

"...it's also difficult I think because our job is to make them dream about things and then we have to make it concrete. And sometimes they have so unrealistic dreams. Because they don't know the economics behind it. But then it's our job to be like okay you want places to sit maybe it doesn't have to be all these special carpenter made benches maybe we could just make something with some wooden things you can sit on or something like that."

"...I think it's our job to make it realistic. Of course we have to balance how much they have as ideas, but I think it's our job. So we are just getting to know them and get to know how they use this particular space or landscape and what they kind of want it to be in the future. And then we have to like, okay, you want this and this, but biodiversity needs this and this. And we also have this and this, and then we have to puzzle it all together."

These insights gave us an understanding that landscape architects have different expertises depending on direction within their education. Hence, some landscape architects know more about user involvement than others from their education. Despite Pauline having less experience with user involvement practices, the motivation and emphasis on the importance of involving users is mentioned. The role of the landscape architect is broad. with a broad range of knowledge making them excellent cross disciplinary collaborators. There are also some difficulties in balancing user needs and

design demands however not unmanageable.

# 4.1.2.2 Employee interview: Newly graduate

We held a semi-structured interview together with Ry who graduated in 2022 from the landscape architecture education program at UCPH. She is currently an employee at Thing Brandt Landskab. She has used quite a lot of user involvement practices in her education that also correlates to those used at the company.

She explained that the difference in the directions in the master isn't that big. Whether you gain experiences in user involvement practices in the master also seem to depend on the landscape architects interest as they choose courses as they like.

"...the difference is not that big. It's just whether you take theories of urban design or theories of landscape, and then for the rest of the master, you mix the courses as you like."

A method Ry remembers vividly from her education is mapping. It is a method used to draw out a map of the space where they then invite stakeholders to point out certain things to get input. They might point out favorite places, places with challenges and hidden gems that they'd like to keep hidden. Mapping can be done in different ways. She explained when they used it, they gave users happy and sad faces as well as some money that they could use to place on the map. This method was used to

evaluate the stakeholders' thoughts about how to change the space.

Other methods she mentioned are stakeholder meetings where they discuss different topics, walks with users where they've used surveys to collect information and workshops. She also expresses the use of visualisations and images as very useful as users can point and talk from them easily.

## Thing Brandt Landskabs reflections on user involvement tensions

Ry mentioned that the communication in user involvement settings is oftentimes clear. However, there can be challenges with balancing different wants and needs from a diverse set of users as well as keeping a structured conversation about what phase they are in. This seems to require a good facilitator in order to keep conversations structured and to enable good communication.

"...So if we're talking, if we're out in a housing area, there will always be one person who wants roses and one person who don't want roses, and we're not even talking about that yet. It can be very difficult to explain where we're at in the phases. Because in the start we only talk about how much? how little? And where do we want to place it, but not what it is and that can be very difficult..."

Even though images work well as communication tools, they can sometimes be taken to literal by the users.

"You can say, so for example maybe you want small apple trees over here, or like fruit trees. And then they will all say ah we want small trees over here and it's the same with the pictures. They have a really difficult time understanding it as a reference. They see it as a one to one example of what they can get. So we have to choose pictures really, really carefully, because they really expect what they see on the pictures to become reality. So that can be an issue..."

She acknowledges the importance of user involvement. However, she also expresses the importance of sustainable and resilient places and to enable that through that balance of both listening to the user but also to your professionalism.

"I think when I started studying I was very idealistic. I thought that user involvement would be like my thing. I would love that. It's very important, I thought. I still think it's very important, but I also see the issues of making something that will last, because if we make something very, very specific that someone wants now, we have to look at how temporary the project is."

Not expressed as a challenge with user involvement but rather a motivation is that user involvement practices enables the user to feel ownership over the project - something that she expresses as very important to create spaces that maintain for a long time.

"if you don't have user involvement, you don't have ownership and if you don't have ownership to the project it will not maintain... So it's not about them deciding

what it's going to be, it's about creating an ownership feeling towards the project. And that can be planting just one rose because then they can see themselves in the project. Or doing something else and evaluating coming back and saying OK, so you wanted this, look how we integrated it."

These insights also confirmed that architects different landscape have expertise from their education as Ry also explained that it comes down to choice of and interest. The interview courses provided us with additional knowledge about user involvement methods that Thing Brandt Landskab uses in practice. Methods such as mapping, stakeholder meetings, surveys and workshops. We understand that images are especially useful elements to include as tools.

Difficulties with user involvement include communicating the project phase. Insights also reveal difficulties in balancing user needs and design demands, as mentioned in the previous interview as well. Even if images are mentioned as a very helpful tool, they sometimes get taken too literally by users which emphasises the importance of communicating the images as a reference rather than a finalized result.

Finally, ownership is mentioned as a very important factor to create spaces that last.

### 4.1.3 Design probe

Following the interview with Signe we wanted to get a better understanding of the employees at Thing Brandt Landskabs

motivations for including users, as well as what challenges they face and how much these challenges and motivations weigh when they are involving users.

We wanted to further explore the different user involvement methods they use, when during the process they use each method and how often each method is used. We did this to get an overview of how much user involvement they are able to incorporate into their projects.

To explore this, we decided to create a design probe, which is a form of self-documentation done by the user, where no researcher or designer needs to be present. The benefit of this is that users are able to work on it in their own time, without outside influence (Service design lab, n.d).

For our design probe we created two information gathering boards to hang in their office, for the employees to be able to interact with when they had the time. We chose this method since we were aware that they are very busy, and it would be difficult to guarantee a significant amount of participation if the information gathering was more time constrained. Hanging the boards in the office could also lead to conversations between co-workers on methods which could unlock more detailed answers.

We decided to create two different boards, one for investigating the motivation and perceived challenges of user involvement, and one for investigating the amount of user involvement in different stages of the process, as well as which methods are the most used.

For the first board we created three sections called challenges, benefits and motivations. Each section was on a gradient from most to least so they could indicate what they found most beneficial,

motivation etc. For the second board we created a section for each part of their design process, and divided it into three sections each representing how much they use a specific method in that part of the process, with the options of rarely, sometimes and mostly.



Figure 4: setting up the design probe at Thing Brand Landskabs offices

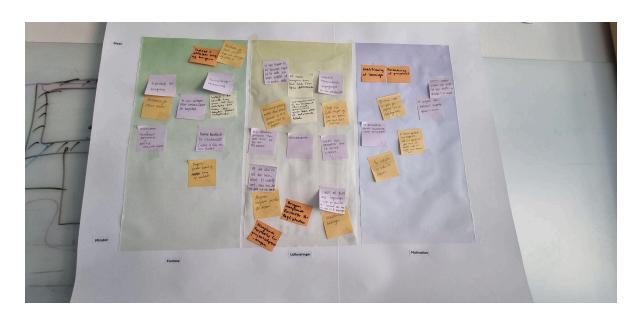


Figure 5: Board collecting motivations and challenges



Figure 6: Board collecting the amount of user involvement in different stages of the process, as well as which methods that are the most used.

For each board we wrote detailed instructions of use to hang next to the board. We also made it clear how we could be reached if there were any uncertainty about how to use the boards. Before placing the boards at the office, we pilot tested them digitally with two danish-speaking classmates in order to get an understanding of the clarity of the assignment. All of the text on the boards were in Danish to make sure there were no language barriers.

We had based the sections on the second board on the project phases we discussed in the literature review, however when we went to hang the posters at the office, we talked to Signe who informed us that to get the most useful answers, she suggested dividing the synthesis phase into two different phases, namely Sketching and program and Projecting. She suggested we instead left out the operation phase, since she knew that they never had any kind of user involvement during this phase.

The boards were hung in the office on a Tuesday morning and a message was sent with instructions to all employees. We left the boards up until Friday afternoon, at which time seven people had put their answers on the boards.

## Results and insights from the design probe:

The results from the motivation and perceived challenges board showed that the employees at Thing Brandt Landskab are highly motivated by using user involvement to validate their solutions and

ensuring that the users feel a sense of ownership of the project. The benefits of including users are that you ensure a better alignment of expectations, and it provides an understanding of the site that is difficult achieve through analysis. ownership is mentioned again as something that is essential, as well as understanding users' wishes for the project. For the challenges it is indicated that some factors are that it is very time consuming to involve users, which can make it difficult to have a lot of user involvement in a project. Other challenging factors mentioned are that the users often find it difficult to understand the budget, and scope of the project and their lack understanding professional knowledge. It can also be challenging with users having conflicting opinions, some users only focusing on their own personal and users interest dominating conversation preventing others from being heard.

The results from the second board investigating of the amount user involvement in different stages of the process, showed that, much as expected, the user involvement was condensed primarily into three phases, initial investigation, registration and sketching & program, and projecting.

In the registration and initial investigation, dialogue with users, stakeholders, and operations were mentioned as ways of user involvement that were used in most projects. Walk & talks were also mentioned as a commonly used method during this phase.

The sketching and program phase is where the majority of user involvement happens. In this phase methods of user involvement such as walk & talks, workshops based on initial sketches, café meetings where users are invited to come listen to a proposal and comment, as well as study trips, were common methods of user involvement.

In the projecting phase they still have quite a lot of user involvement, but during this phase the user involvement is mainly focused on presenting suggestions, and discussions with users.

In the implementation phase of the project, there is very little user involvement, sometimes they will do walk & talks or if there are some choices or alternatives that can still be decided, they will clarify that with the users.

A digital version of the boards can be found in Appendix A.

### 4.1.4 Qualitative questions

As an additional way to get a better understanding of Thing Brandt Landskabs user involvement practices, we decided to send out qualitative questions to the employees through email. The questions can be found in Appendix B. Five employees answered the questions, providing valuable insights to how they choose user involvement methods for different contexts, how they collect and analyze its data and if they evaluate the success of the methods.

Through these answers, we found out that the process with user involvement methods is largely guided through the landscape architect's experiences. Their approach to documenting the data they collect vary due to the nature of each project. Hence, they don't have one specific way of collecting data and they can for example use written notes or observations. This can provide a slightly varying structure to their process. However, it shows that they are able to be adaptable to different project needs and it is a conscious choice rather than a limitation that they are handling effectively on a case by case basis.

Finally, a central finding here was that formal evaluations of user involvement methods are not part of their process due to time constraints.

### 4.1.5 Walk & talk and workshop

As part of getting to know more about Thing Brandt Landskabs work with user involvement practices, we observed a walk & talk and workshop they were part of in Skovlunde Bypark together with the municipality.

The walk & talk started with the municipality representatives doing a brief presentation about the park's current state and use. The participants were then divided into two groups each led by a representative who led a walk around the entry area of the park, which was the area that would be affected by the new project. To get a broad and diverse representation of participants, invitations were sent out to possible

interested parties. They had also hung posters at the park that explained the event and where people could sign up. However, we observed that the users that attended were mostly retired or older people. This could possibly be due to the time of the walk & talk which started at 6 o'clock on a weekday evening, as well as the length of the event, it ended at 9 o'clock, making it difficult for people with young children to attend. There were also a few people present who represented larger user groups of the area, e.g. a pedagogue from one of the after school institutions that were placed in connection with the park, as well as a care worker from a nursing home in the area.

During the walk, the participants asked questions and the representatives talked about the different parts of the area. Thing Brandt Landskab had a representative landscape architect present, who was there to provide input and perspectives. This prepared the participants for the workshop where they worked on ideas for the entry area of the park.

In the workshop, the landscape architect held a presentation about their analysis of the space, as well as some recommendations and ideas of what could be done. The participants had opportunities to ask questions. The workshop consisted of group work where groups of people were creating ideas for improvements of the entry area of the park. These ideas would be presented to the municipality and the Thing Brandt Landskab representative, who would then create a suggestion of what to

do with the space taking all the information into account. Overall, the structure of the walk & talk and workshop felt organised and clear, and the participants who had shown up felt very engaged and keen on participation in the process and providing input.



Figure 7: Walk & Talk at Skovlunde Bypark

### 4.1.6 Key takeaways

The Discover phase gave us a lot of insights into Thing Brandt Landskabs ways of working with user involvement, the role of the landscape architect and some tensions with user involvement in their work. Here, we'll be summarizing the key takeaways from the Discover phase before entering the Define phase.

Landscape architects have a broad range of knowledge and their expertise differs a bit in relation to the direction they've taken during their education, some people might therefore be more familiar with user involvement practices than others. However, no matter the experience with user involvement, there is a large motivation and understanding of the importance in involving users in their projects.

Specifically, Thing Brandt Landskab employees expressed that user involvement is important in order to accomodate user wishes and ultimately make users happy with the end result, it is a way to validate solutions, align with expectations and help them see opportunities in order to create ownership for the users which is key to creating solutions that lasts and that users cares about.

In practice, user involvement is centralized around some specific phases in a project. More specifically around the registration and initial investigation, sketching & program, and projecting. As explained by associate partner Signe, this is a strategic decision since including the user beyond these stages can cause a ripple effect in the overall changes. There is also a limited amount of time for a project which requires prioritizations of activities.

We found that the process of documenting data is different depending on the nature of the projects. Since this part of their process is context-dependent, it shows that they are adaptable and responsive to diverse situations. While this can create variations

in documentation methods, it allows for tailored approaches suited for each case. Additionally, we found that no specific evaluation is currently being made on their user involvement approach due to time constraints.

We discovered that sometimes user involvement tensions occur, however not unmanageable, but they do require the landscape architect to navigate complex and sometimes competing demands. They included challenges in accommodating users' wishes and needs, taking a diverse set of opinions into account and balancing that with design demands such as sustainability, biodiversity and economic constraints.

Communication can also be challenging, particularly when presenting complex ideas or clarifying what stage the project is in. Since users may lack knowledge of landscape architecture, misunderstandings may arise. Visualizations are therefore helpful in supporting communication but can occasionally be interpreted too literally. While these challenges can increase the need for careful explanation and follow-up meetings, Thing Brandt Landskab are able manage them through thoughtful strategies, communication iterative feedback, and the use of well-designed visual aids.

# 4.1.7 Limitations of the Discover phase

During our Discover phase we tried to get an extensive overview of and insight into landscape architecture practices of user involvement. While this phase has given us thorough insight into the field from the perspective of landscape architects, we are missing the perspective of the users that are involved in the projects. During this phase we were not able to directly come into contact with users and ask them questions. This is because landscape architecture projects happen over a very extended period of time, and during the time of this phase there was no user involvement conducted where we could be allowed direct contact with users. This limits our Discover phase to the thoughts and opinions on users of the landscape architects. Having the user perspective could have been beneficial in our further work.

Another limitation is that Thing Brand Landskab is a fairly small office, with busy people and therefore we were working with few answers from the qualitative questions and design probe for our data analysis. It would have been preferable to have more answers to be able to extend any possible solution to the entire office.

# 4.2 Define

In the Define phase, our goal was to synthesize the collected data in order to identify a clear direction and formulate a well defined problem statement. We started with analyzing and synthesizing all of the data we had collected during the Discover phase. After synthesizing, we had identified two potential directions, which we democratically prioritized and used as the base for early concept ideation. Before building on our concepts, we defined who our users are by creating a stakeholder map.

We defined personas and created user journeys considering both perspectives of the users of the space and Thing Brandt Landskab. From these journeys, we were able to define a set of design criteria and through them build a decision matrix in order to systematically assess which concepts would be most feasible.

Finally, we refined a problem statement. In a feedback meeting with our supervisor at Thing Brandt Landskab, we confirmed that the chosen direction aligned well with the organization's needs and ambitions.

- 4.2.1 Data synthesis
- 4.2.2 Feedback from the supervisor at Thing Brandt Landskab
- 4.2.3 Evaluation
- 4.2.4 Formulating the final problem statement

### 4.2.1 Data synthesis

The collected data included semi-structured transcribed interviews, a design probe, qualitative email questions and notes from a walk & talk we attended with the company. The diverse input required a methodological approach to identify patterns, discover insights and make them into actionable directions.

We individually collected insights from our data, including quotes, needs or pain points and observed behavior. We then collaboratively clustered these insights by using affinity mapping. This helped us discover themes and additional insights.

Based on the synthesized themes, we brainstormed How-Might-We (HMW) questions to reframe the insights into opportunities. The HMWs were again clustered by using affinity mapping to identify overlapping problem areas and interests. To prioritize, we used dot-voting. This enabled us to democratically identify which directions felt most meaningful based on our discoveries so far. We combined and iterated on the chosen HMWs that led us to two clear directions:

- 1. Supporting communication between landscape architects and users.
- Enhancing evaluation for Thing Brandt Landskabs projects.

The direction of communication was chosen since we, through the data synthesis, identified that it is an area they have a lot of focus on when working with users. We therefore thought it could be interesting to explore how our tools and methods could support them in this aspect of their work.

The initial HMW related to communication was as follows:

"HMW support Thing Brandt Landskab in fostering communication with users through user involvement practices to make their expectations about project scope and influence more clear?"

The evaluation-direction of user involvement was chosen since it was expressed that while this is an area they do not currently have a lot of focus on due to time constraints, it is an area they want to further develop into their work practices.

The initial HMW for this direction was as follows:

"HMW support Thing-Brandt Landskab to efficiently evaluate their projects based on user satisfaction to enhance user participation in future projects?"

These directions formed the foundation for our concept ideation.

### The users

Before entering our early ideation phase, we created a stakeholder map in order to clearly identify and communicate who our users are, see figure 8. A stakeholder map visualises stakeholders involved and how they are connected (Stickdorn et al., 2018). The core stakeholders represent our users,

specifically in this case, our solution caters to the landscape architect team, referring to Thing Brandt Landskab. The direct stakeholders are the users of the spaces designed by the core stakeholders, making them not direct users of our solution, however, central to the solution as they will be affected by it. The indirect stakeholders can partly affect the space, however, not on a regular basis.

### 4.2.1.1 Personas and User Journeys

To get a better understanding of Thing Brandt Landskab and users of the space perspectives, we decided to create user journeys based on our assumptions. Journey maps are human-centered tools that visualize a person's existing or future experience over time, revealing all kev steps of that experience (Stickdorn et al., 2018). It is constructed to visualise the users point of view (Penin, 2018). They make intangible experiences tangible, fostering a common understanding in a team (Stickdorn et al., 2018) and captures motivations and causal effects behind actions of people (Penin, 2018). It is structured as a sequence of steps and is used to make it easier to find gaps in users' experiences and to explore potential solutions (Stickdorn et al., 2018).

Before creating the journey map we started by creating personas to justify our assumptions in the journeys. A persona represents a group of people through

characterizing a person with specific wants, needs behavioural and patterns representable for that group (Stickdorn et al., 2018). It is made into a profile showing the archetype group of customers, users, a market segment, employees or any other stakeholder group. Personas makes the designer understand groups of people with similar service needs. This tool is used to share patterns of insight, align teams, to build empathy with customer groups and to the shoes of different step into stakeholders, review tasks and understand their needs (Stickdorn et al., 2018).

The personas we created are based on an interpretation of our collected data from the interviews with Thing Brandt Landskab as well as the walk & talk. They represent a landscape architect and two different types of citizens of Copenhagen. The personas are focused on attributes revolving user involvement settings.

In the journeys, we wanted to get a better understanding of the objectives, needs, feelings and barriers surrounding user involvement practices of both Thing Brandt Landskab and of the users perspectives. iournevs made our observations and synthesis of data even more clear and through these journeys, we able to synthesize a list were requirements that our solution should be The personas and their considering. corresponding journey maps can be seen in figures 9-14.

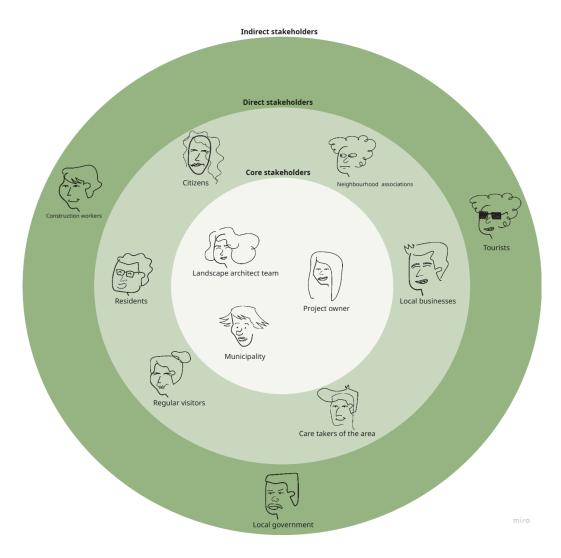


Figure 8: Stakeholder map

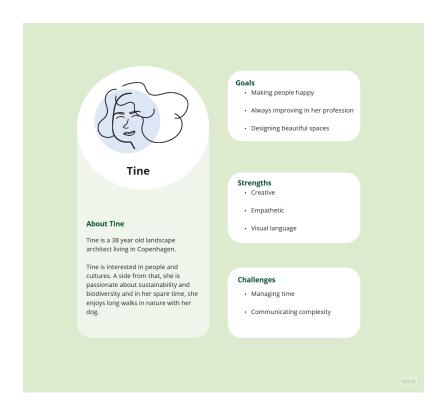


Figure 9: Persona, landscape architect

### Journey Map: Landscape architect

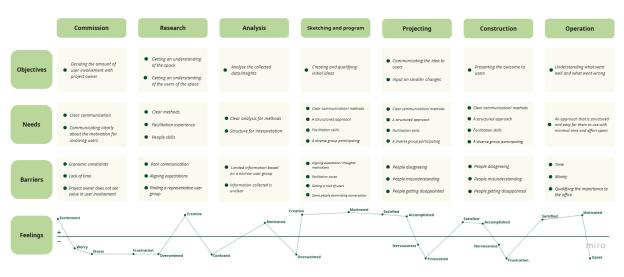


Figure 10: Journey map, landscape architect

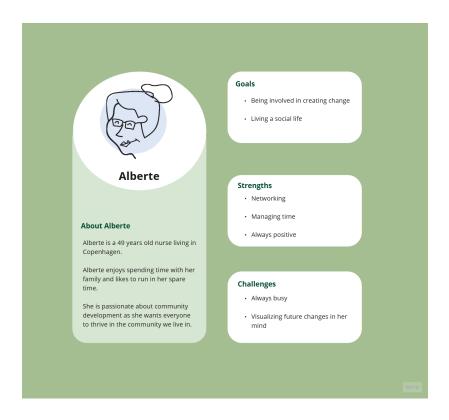


Figure 11: Persona, user of the space

### Journey Map: User, Alberte

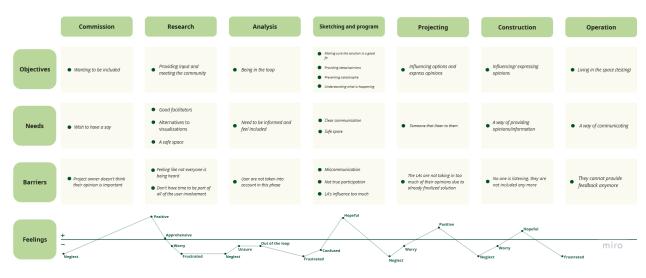


Figure 12: Journey map, user of the space

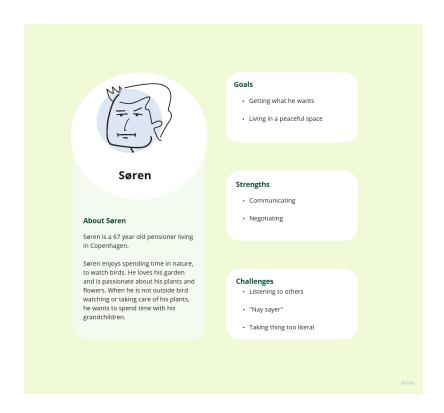


Figure 13: Persona, user of the space

Journey Map: User, Søren

# Commission Research Analysis Sketching and program Projecting Construction Operation Operati

Figure 14: Journey map, user of the space

### 4.2.1.2 Design Criteria

We brainstormed potential solutions in response to our two refined HMWs. To structure and expand our thinking, we used mind mapping to explore ideas, connections and potential directions within each theme.

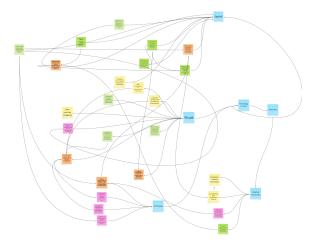


Figure 15: Illustration of the mind mapping process

From this, we created four concepts that we expanded through adding key touchpoints for each concept in a journey format, see Appendix C.

Based on the concepts and the user journey mappings we defined some design criteria that the final solution should meet.

Time efficient: Any solution we come up with needs to be time efficient, since Thing Brandt Landskab are paid for the amount of hours they put into the projects it is very limited how much time the project owner wants to pay specifically for user involvement. If a solution is outside of

project scope, e.g something they have to do after the end of the project, we have to be mindful that it is time spent that will not directly generate revenue for them, and therefore it has to be as time efficient as possible, as well as having a solid reasoning behind it, to show how doing it will generate valuable insights for them.

Cost effective: The final suggestion should also be cost effective since if a solution is very expensive or time consuming to execute, it is highly unlikely that it will be implemented.

**Users ownership:** This is expressed as one of the employees motivations for doing user involvement. This is important because users are more likely to be happy with the solution and to maintain it. Therefore we should aim for a solution that strengthens the feeling of ownership by the user.

Enhancing/ improving their user interactions: Our final design should in some way be helping Thing Brandt Landskab with their user interactions, ensuring that both the user and Thing Brandt Landskab has a better experience when doing user involvement. Ultimately leading to better projects.

Provide validation and insights on designs: The design should help Thing Brandt Landskab get new insights and validation on their designs, to create better solutions, preventing the same issues from reoccurring.

### **Decision matrix**

The design criteria then helped us with evaluating the five concepts using a decision matrix, allowing us to compare them systematically. As an additional filter, we evaluated the practical feasibility of implementing each concept. Each concept

was evaluated against the criteria. The outcome pointed toward Concept D, which included the evaluation focused direction, as the most promising direction.



Figure 16: Decision matrix

# 4.2.1 Feedback from the supervisor at Thing Brandt Landskab

In order to align with our company collaborator and ensure that the refined direction of our project met their interest, we arranged a checkpoint meeting with our main contact, Signe, at Thing Brandt Landskab. The main purpose of the meeting was to confirm the relevance of our chosen direction and gather feedback for the next steps.

We discussed the direction of focusing on evaluation, which was positively received. Signe confirmed that evaluation is a valuable area for them and something that they are interested in enhancing further. In particular, she expressed interest in better understanding users' experiences both immediately after a project is completed and several years later, once they have lived and adapted to the space. This long term perspective aligns with Thing Brandt Landskabs philosophy of slow architecture, where spaces are designed to develop organically over time.

Additionally, we learned that for some projects, direct user involvement during the design process may not occur. However, in such cases, Thing Brandt Landskab is still interested in gathering insights on user satisfaction. We also gained further understanding of their internal organizational structures, such as their regular monday meetings, which could

serve as potential touchpoints for implementing future evaluation processes.

Overall, the meeting provided valuable confirmation that our current project direction is aligned with Thing Brandt Landskabs interests.

### 4.2.3 Evaluation

Based on our research and feedback from Thing Brandt Landskab, we chose to focus on the direction of evaluation. Further research into the role of evaluation helped us shape our final How Might We problem statement.

Evaluation plays a crucial role in ensuring project success by providing continuous knowledge and opportunities to adjust the approach along the way. In a report by BARK Rådgivning (2024), evaluation is described as one of six essential tools for creating systemic change.

Ongoing evaluation enables the early identification of emerging challenges and evolving user needs, allowing methods and tools to be adapted to remain relevant (BARK Rådgivning, 2024). It supports learning and knowledge sharing by helping to develop best practices across projects while also identifying strategies that may not deliver the intended results. This process builds a strong foundation for organizational learning and improvement (BARK Rådgivning, 2024).

Evaluation enhances transparency, providing insight into the real impact on

users and local communities, thereby strenghtening user involvement (BARK Rådaivnina. 2024). By systematically capturing knowledge and building on existing experiences, organizations can apply insights to new initiatives and find solutions to a wider range of societal challenges. Evaluation therefore becomes a mechanism for continuous kev development innovation (BARK and Rådgivning, 2024).

Evaluation is also a way for providing evidence to stakeholders that requirements are met and can document impact and be used to for example justify spendings (Patton, 2008). It can also be used as a way of preventing confirmation bias (Rossi et. al, 2003), as well as a method of reflection, to help you learn from your own actions and results (Schön, 1983).

# 4.2.4 Formulating the final project statement

In the above sections we have explored how Thing Brandt Landskab approaches user involvement in landscape architecture. Through interviews, observations, a design probe, and qualitative questions, we have examined their practices, motivations, and challenges for including users in their projects.

We found that they are a company that places high value on user involvement, which they use to improve project relevance, foster user ownership, and aligning expectations with users.

However, they also experience challenges, e.g with communication gaps, limited or uneven participation, balancing competing demands and lack of consistent evaluation.

These insights led us to define two areas: opportunity supporting communication and enhancing evaluation. After defining design criteria, prioritization and feedback from our collaborator. we chose to focus evaluation, since it is an area that fulfills our design criteria and is seen as important by our collaborator. Furthermore, evaluation is an important way of improving work processes. This understanding ultimately led us to define the final problem statement:

"How might service design tools and methods support Thing Brandt Landskabs work process to help them with on-going efficient evaluation of their user involvement processes and end user satisfaction?"

# 4.3 Develop

The Develop phase focused on exploring how to best answer our final problem statement and create an approach for evaluating Thing Brandt Landskabs user involvement practices. To do this we began this phase by hosting a co-creation session designed to explore how evaluation could be meaningfully integrated into their current work process, as well as what they specifically were interested in evaluating, i.e. the questions they would like to be answered by evaluation. The co-creation workshop allowed us to gather knowledge directly from Thing Brandt Landskab ensuring the resulting framework would align with their real-world needs.

The co-creation session deepened our understanding of what their company values in an evaluation process. Based on the co-creation and the insights from the previous sections we began developing a comprehensive framework, where we integrated tools and methods from service design, post-occupancy evaluation (POE), and program evaluation to form a structured and adaptable tool for Thing Brandt Landskabs future projects.

- 4.3.1 Co-creation session with Thing Brandt Landskab
- 4.3.2 Types of evaluation
- 4.3.3 Design criteria for evaluation approach
- 4.3.4 Developing the framework

# 4.3.1 Co-creation workshop with Thing Brandt Landskab

## Developing and conducting the co-creation session

To be able to understand how to best implement evaluation into Thing Brandt Landskab work process we decided to host a co-creation session with them.

A co-creative workshop is about using a diverse set of experience into co-designing (Stickdorn et al., 2018). These workshops are fundamental for the practice of service design since they are bridging groups of people who might be part of a specific service (Penin, 2018). Groups are usually cross-disciplinary, coming from both the service providing organization as well as outside of it. This method is effective through a structured approach where participants are informed with the aim of the workshop and invited for a specific time and place. An agenda is presented to communicate the structure of the workshop and there is a focus on creating a safe space to enable involvement (Stickdorn et al., 2018).

The purpose of the co-creation session was to gain a deeper understanding of what knowledge they would find useful to gain through evaluation.

Ideally we would have liked for 3-4 people from Thing Brandt Landskab to participate in the co-creation since this would have given us a broader image of what they would want from a solution, this was not possible due to busyness at the company and the co-creation session was conducted with our contact at the company as the only participant.

For the workshop we created an overview of the process in the form of a journey map, outlining two different exercises, see figure 18. For the first exercise we had asked our participant to think about a specific previous project that contained user involvement, preferably one where there had been some challenges during the user involvement process. During the first exercise we asked the participant to map where during the project the user involvement had taken place, what had been challenging, and what had worked well, and finally if any evaluation had taken place during the process.



Figure 17: Image from the co-creation with Thing Brandt Landskab

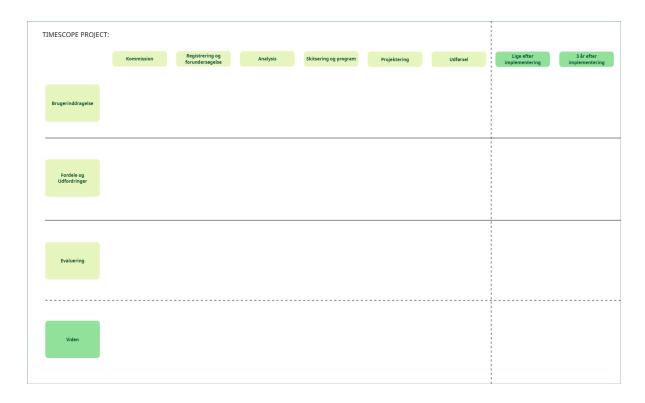


Figure 18: Template for co-creation

For the second exercise the journey map was expanded to include the phase of operation where they currently do not have any user involvement. Since Signe had indicated at the previous meeting that they would find evaluation interestina immediately after the end of construction. as well as after the project was fully developed, we included two sections, one immediately after the end of construction and one was after 3 years. We also expanded the journey map with a section called knowledge.

For this exercise we had created 15 different knowledge cards with suggestions of knowledge that they would like to have. We had based the cards on different service design tools and methods to make it easier for us to translate knowledge into tools after the session, see example in

figure 19. We made sure to express that the knowledge cards were suggestions and that she was free to add anything else she would find useful.

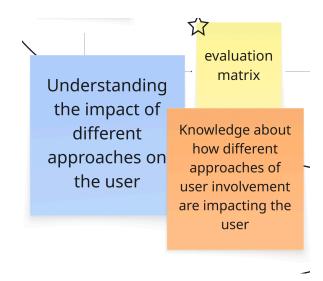


Figure 19: Example of translating method into knowledge

The knowledge cards can be seen in Appendix D.

### Insights from the co-creation

The co-creation with Signe gave us some very interesting insights into what they are looking for in a potential solution in regard to them implementing evaluation in relation to their user involvement.

We had asked Signe to bring a project where they had experienced challenges with user involvement. Signe explained that it was difficult to find challenges since it is part of working with users and that they are so experienced that they do not think of it so much as challenges but more of a precondition that they always have to take into consideration.

In regard to implementing evaluation into their process she mentioned being both interested in implementing evaluation in the operation phase since, as of now, they do not have user involvement in this phase, and they do not evaluate on user satisfaction of the end solution. We had set up the journey to reflect evaluation both close after the end of the construction phase as well as three years after construction ended. She mentioned that they would be interested in understanding how the users are feeling both right after and after three years, since their work often takes a while to develop seeing the full vision of a space will usually take some time.

She also indicated that she would like to have a better understanding of how users are feeling during the process and evaluate their methods of user involvement. As of now their way of evaluating this is unstructured discussions between co-workers, and she would like to see this become a more structured process that is also documented for future use. The final result of the co-creation session can be seen in figure 20.

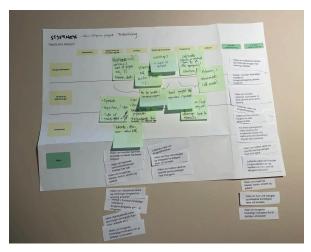


Figure 20: Results from the co-creation

### **Developing from co-creation insights**

We started by making a digital version of the material from the co-creation workshop in miro. We then paired the knowledge we had collected from the workshop to the groups of service design tools we previously made. We did this in order to better understand and categorize what tools could be used to answer the knowledge Thing Brandt Landskab wanted to evaluate on in relation to their user involvement practices, see figure 21.

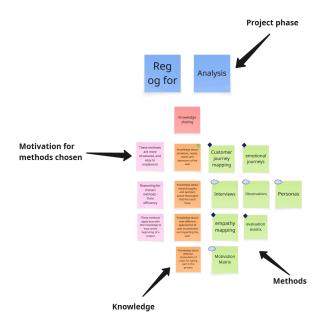


Figure 21: Example of connecting knowledge and tool

We put in all methods correlating to the knowledge and placed it in the digital table (same as in the co-creation workshop). This allowed us to go through each method and assess whether they were suited for the specific steps they were placed in. We quickly realised that we could narrow down to a few methods for evaluation per knowledge-point.

Our previous concept from the define phase was based on creating a framework or process to give them a structured approach for evaluation of user satisfaction with the end solution. We did however through our data synthesis also identify a need for evaluation of the user involvement processes, which we included in our final co-creation problem statement. The confirmed that while they had not previously directly expressed the need for evaluation of the user involvement processes, our assumption was correct and they do want information about both the user satisfaction, especially after the end of the project, and they would also like insights into whether their user involvement practices works as intended.

### 4.3.3 Types of evaluation

To further the understanding of how to help Thing Brandt Landskab with evaluation, we wanted to explore different methods for evaluation, and which might work well for creating an evaluation framework for understanding user involvement in landscape architecture projects.

An essential part of landscape architecture evaluation, performance post occupancy evaluation (POE) which is a process of assessing how built environment, this can apply to both buildings and landscapes, performs once people have begun utilizing the space. The aim of POE is to evaluate whether a space supports the needs. behaviors. satisfaction of its users as intended (Preiser et al., 2015). This enables designers and stakeholders to assess whether their design aligns with actual use and is a way of gathering insights for future projects. While recognized as important it is however still uncommon to see regular POE landscape architecture. The reasons for this can for example be that architects are worried about negative evaluations, as well as financial reasons since there is no real financial incentive in most cases of evaluating after the end of a project (Chen et. al, 2021). POE has been used for many different purposes within architecture and

landscape architecture and has evolved within landscape architecture from a method of evaluating user satisfaction, to also including evaluation of performance and goals. POE is however not well defined and there is no structured approach for how to conduct it (Chen et al., 2023).

According to the Centers for Disease Control and Prevention (CDC) another method of evaluating is program evaluation, which is a systematic method for collecting analyzing data for determining effectiveness, efficiency, and relevance of programs. They define a program as "Any set of related activities undertaken to achieve an intended outcome". Program evaluation plays critical role in а decision-making. accountability. and continuous improvement by addressing how well a program achieves its intended objectives (CDC, 2024).

The CDC has outlined various types of evaluation that can be used in different stages of a program:

- "Formative evaluation: assesses whether a program, policy, or organizational approach, or some aspect of these, is feasible, appropriate, and acceptable before it is fully implemented. It can include process and outcome measures." (CDC, 2024).
- "Process or implementation evaluation: Assesses how the program, intervention, operation, or regulation is implemented relative to its intended theory of change. It

often includes information on processes, content, quantity, quality, and structure of what is being assessed." (CDC, 2024).

Process evaluation can be used to understand how internal structures and dynamics of a project can affect the outcome. This understanding can help inform how to create recommendations for improvement of a process (INTRAC, 2017).

- "Outcome evaluation: measures the extent to which a program, policy, or organization has achieved its intended outcome(s). It cannot attribute causality" (CDC, 2024).
- "Impact evaluation: Estimates and compares outcomes with and without the program, policy, or organization, usually seeking to determine whether a causal relation can be established between the activity and the observed outcomes." (CDC, 2024).
- "Economic evaluation: Examines program effects relative to the costs the program. Common approaches include cost analysis, cost-benefit analysis, cost-effectiveness analysis, and cost-utility analysis. It might overlap with other evaluation types dependina on the evaluation question(s) and type of economic evaluation used." (CDC, 2024).

The CDC created a framework that includes the following steps: Assess the context, describe the program, focus the evaluation question and design, gather credible evidence, generate and support conclusions and act on findings.

For our context of evaluating the effectiveness of user involvement methods at Thing Brandt Landskab, as well as user satisfaction, an effective way of evaluation could be through a framework that takes inspiration from the CDC framework and uses a combination of process evaluation and outcome evaluation as POE. Process evaluation can be used to help assess the quality and consistency engagement activities, such as workshops or walk & talks, verifying whether the user input authentically incorporated. Outcome evaluation can be used as both a method of evaluation to determine whether participation had the intended user influence on design outcomes such as satisfaction, spatial usability, and perceived ownership. When used iteratively, its findings can also inform formative evaluations for future projects (Zimring & Reizenstein, 1980).

Although impact and economic evaluations can also add value, they may be less practical in this context due to challenges in isolating causal effects and quantifying intangible design benefits. Therefore, we want to create a framework for evaluating user involvement processes in landscape

architecture projects that incorporate process, and outcome evaluation. This will provide the most effective and holistic strategy.

# 4.3.3 Design requirements for evaluation approach

From here, we started to develop a framework but before fully emerging ourselves into the solution, we felt that it was necessary to define design criteria for the evaluation approach. These design criteria were based on insights from the co-creation as well as conversation with Signe at Thing Brandt Landskab, and the insights from section 4.3.2.

### The solution should:

- Evaluate user satisfaction
- Evaluate user involvement processes and methods
- Provide a structured approach
- Be adaptable for a diverse set of projects

The diagram in figure 22 visualizes how the solution will be structured on a zoomed out level. We then started building our framework and iterated on what service design tools and methods could be beneficial for the specific evaluation contexts.

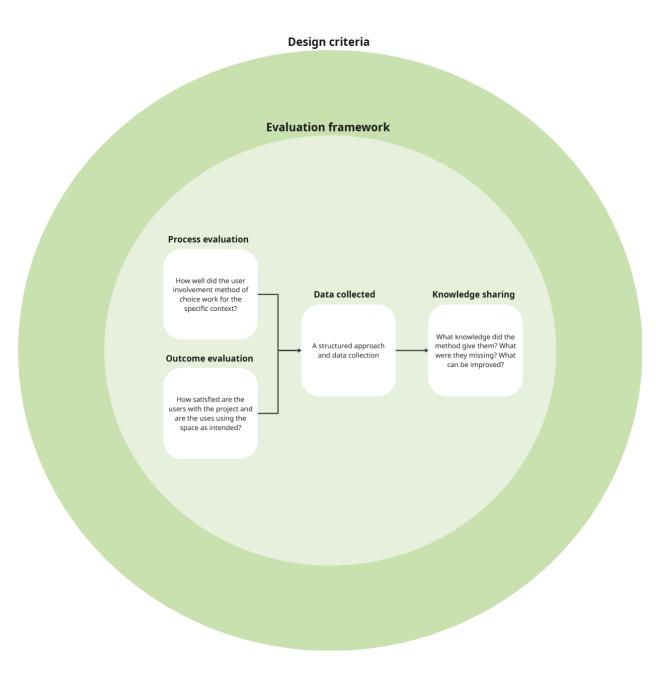


Figure 22: Onion diagram of evaluation framework

### 4.3.4 Developing the framework

For developing the final framework concept we started by collecting the questions and methods and putting them into a flowchart based on the case from the co-creation. Flowcharts are diagrams of user flows and tasks of a process, and they are often used as a tool for visualising interactions for ideation and exploration (Interaction Design Foundation, n.d). The purpose of this exercise was to help us identify how the framework could be used during a project and where there might be important actions happening. We used this method for ideation over how the framework could look and iterated on this chart several times to give us a broad understanding of the concept.

Figure 23 shows the final iteration of the flowchart, which is built from the landscape architecture design process. From the project phase, the overall evaluation question follows in order to guide what should be evaluated at the specific stage. The overall evaluation question is then followed by a specific evaluation question that is then evaluated through certain methods found in the diamonds. We used this as a basis of informing our final framework and solution.

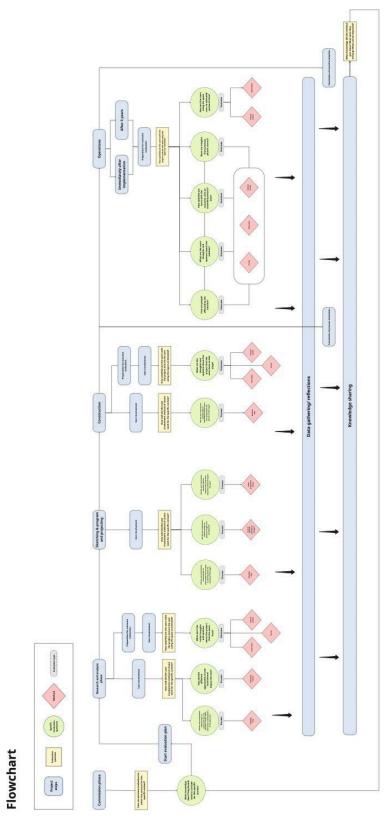


Figure 23: Flowchart

# 4.4 Deliver

The Deliver phase presents the solution, an evaluation framework used for evaluating user involvement processes as well as the user satisfaction and if the space is used as intended. It is specifically developed from the design criteria grounded in our collaborators' needs. A planning template is provided to enable effective planning of the evaluation.

In order to effectively communicate our solution, we created a user journey map that clearly maps out how the framework is used in practice. Two service blueprints were developed to zoom in and describe the steps within the evaluation in detail. Finally, two storyboards exemplify the use of the framework to enable a clear picture of its use.

A pitch was then created in order to present the solution for our collaborator, Thing Brandt Landskab who provided us with feedback for future improvement.

- 4.4.1 Evaluation framework
- 4.4.2 User journey map
- 4.4.3 Service blueprint
- 4.4.4 Storyboards
- 4.4.5 Feedback from Signe

#### 4.4.1 Evaluation framework

The evaluation framework (figure 24) visualizes our solution. The framework outlines evaluation that focuses specifically on two types of evaluation, process and outcome. Process evaluation which focuses on evaluating the effectiveness of the user involvement methods during the process

and outcome evaluation which focuses on the user satisfaction of the process and implemented solution. It is an iterative framework divided into before project start (commission), during the design process (from research to implementation) and after project finish (operations).

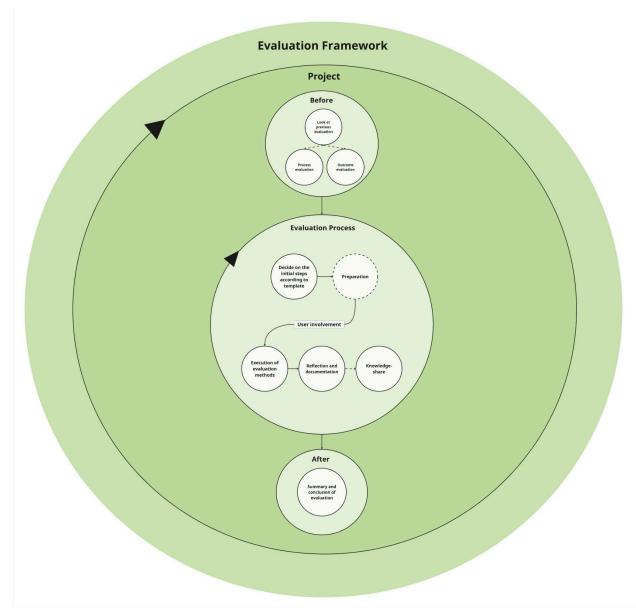


Figure 24: The evaluation framework

Before the project starts, the landscape architect decides on whether they want to do process or outcome evaluation. This can for example depend on whether there is user involvement during the project process or not. They then make an initial plan for the evaluation process with the help of the templates provided (figure 25). In the process evaluation, they can fill in what specific user involvement method they are planning to conduct and in what phase of their process, the purpose of doing that choose evaluation method. specific questions and what method to conduct the evaluation with. The plan can be updated throughout the project and should be adapted to the specific project they are working on.

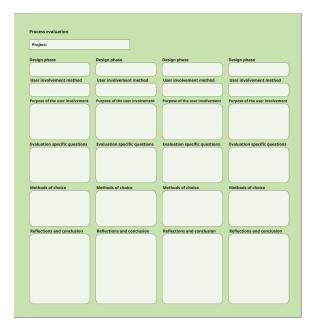


Figure 25: Planning template for evaluation process

The evaluation specific questions are developed from the knowledge points extracted through the co-creation. However, any type of question that the user feels is necessary to ask themselves in

relation to evaluating the user involvement can be added. For the specific questions we gathered, a method or methods are recommended to apply in order to do the evaluation. Examples of these questions and methods can be seen in the flowchart provided in section 4.3.4.

After having filled in the evaluation plan through the template they start any necessary preparation before going into the involvement process. After process, they use the tools that they have noted down in their evaluation plan template on which they can reflect and note down in the template as a last step. These reflections can then be shared with the office at one of their weekly meetings. It is up to the user to decide how much knowledge sharing is possible within the timeframe they have. Knowledge sharing is essential in order to get as many landscape architects on board as possible, to make sure everybody's knowledge and experience can improve the next project. Knowledge sharing can be implemented whenever new information has been collected and there is a need for sharing and collective reflection.

After having gone through the process evaluation, they collect and summarise their data in an existing data storage system. This should be done in order to be able to conclude and gain a better overall understanding before moving on to a new project. This whole process can then be repeated for the outcome evaluation. What would differ here is that preparation is almost always necessary and the evaluation

plan template should be filled out beforehand.

When starting out a new process, previous evaluation data should be taken into consideration in order to improve new user involvement processes and user satisfaction.

### 4.4.2 User Journey map

As a method of representing the evaluation framework we decided to create a journey map from the perspective of a Thing Brandt Landskab employee. Mapping out the journey gave us a better understanding of how the framework would work in pracsis and what the pain points might be in our solution.

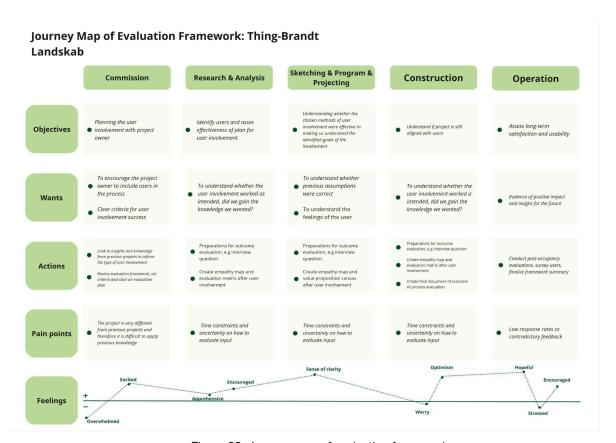


Figure 26: Journey map of evaluation framework

Comparing the user journey of the framework to the user journey we defined in section 4.2.11 from a Thing Brand Landskab employees perspective, we can see that our framework addresses some of the needs and barriers of the original user journey, for example that our framework

should address the barrier of the stakeholder not seeing the including users by incorporating insights previous evaluations into from the commission phase. Other barriers from the initial journey that are addressed by the framework are facilitation issues and information collected is unclear. The framework also provides the structured approach identified in the needs section of the previous journey.

### 4.4.3 Service Blueprint

As an additional method of representing the framework, we decided to create two service blueprints. The service blueprint is a way of detailing the interactions of a service, taking into account both front stage actions, i.e the meeting with the user, as well as backstage actions, i.e the preparations that need to be done (Shostack, 1982). The value of a service blueprint is that it organizes the user actions in relation to organizational actions and logistics by the service provider (Penin, 2018).

In the blueprint of the framework the "user" and backstage actors are positions filled by the same person, namely a landscape architect. However, we use the blueprint to detail the steps that are required for the actor as well as when they should be taken. By doing this we make it clear what steps are connected and how, as well as what are the prerequisites and support processes needed for the framework. Support processes are activities that are being done by the organization or other external partners. The blueprint can be seen as an extension of the journey map as it builds on the frontstage experience that is visible in the journey map, however, adding the depth of the relationships between front and backstage processes. It also illustrates the physical evidence revealed in specific parts of the customer journey (Stickdorn et al., 2018).

For our project we have decided to create two blueprints, one detailing a process evaluation (figure 27) and one detailing an outcome evaluation (figure 28). The process evaluation blueprint follows the journey from the commission of a project and ends when the user involvement ends in the project phase. The outcome evaluation blueprint also starts from commission and ends when the finished project has been in operation for three years.

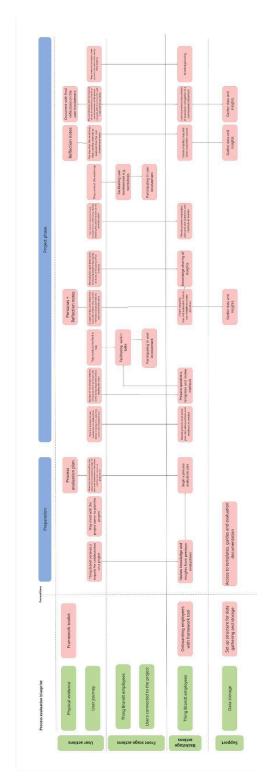


Figure 27: Process evaluation blueprint

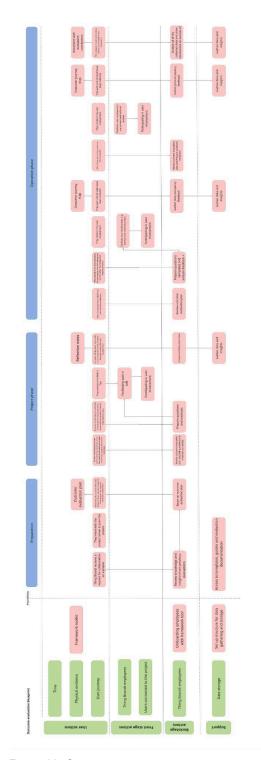


Figure 28: Outcome evaluation blueprint

### 4.4.4 Storyboards

We created two storyboards in order to communicate and exemplify how the two different types of evaluation could look like in a process. Storyboards are journey maps that visually represent each step through sketches, photos, screenshots or illustrations (Stickdorn et al., 2018). This tool helps to reveal the specific story, its environment and context (Stickdorn et al., 2018).

The first storyboard, see figure 29, exemplifies the process evaluation:



Figure 29: Storyboard of the process evaluation

The second storyboard, see figure 30, exemplifies the outcome evaluation and

how it is connected to the start of the next project:

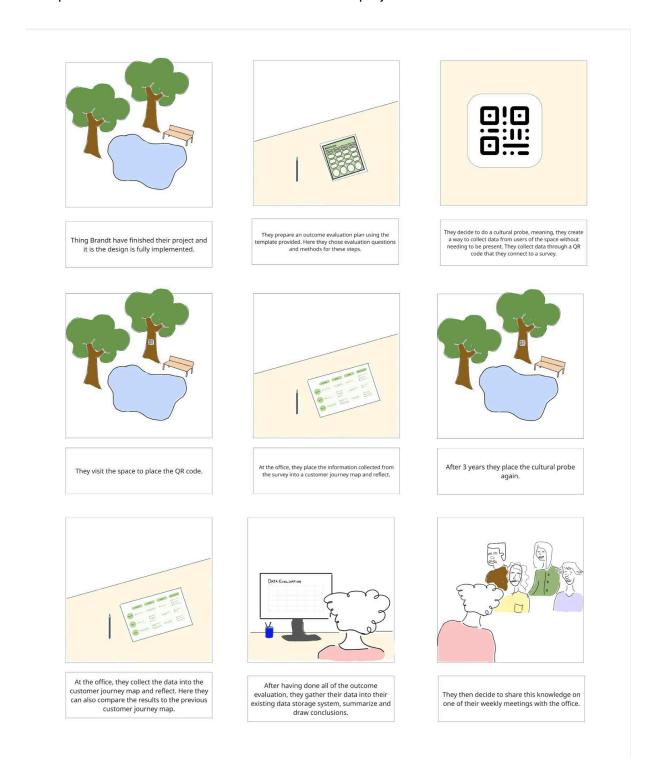


Figure 30: Storyboard of outcome evaluation

Data collection in the outcome evaluation can differ from the process evaluation as exemplified through this storyboard. It can for example be collected into a customer journey map. This can provide more structure to this data to effectively compare them at different stages in the process.

### 4.4.5 Feedback from Signe

To evaluate the framework we created a pitch for our contact at Thing Brandt, to present the reasoning behind the solution, the framework and its use. The pitch can be seen in Appendix D.

The Feedback from Signe was overall very positive and she expressed that she could see the solution implemented at the office to some extent. She did however say that it important to note that the was implementation would require a culture change and that she could foresee that not everyone would be eager to try it. Furthermore, she expressed that in a potential guide to the framework it would be important to make it clear what was essential and what was optional. Her first impression of the framework was that there were a lot of steps and that it might be very time consuming. For the framework to be successfully implemented it would be important to explicitly state if steps could be skipped, and if not then how long they would take to complete, so that they could include that in the planning.

Another comment she had was for the planning template we had created. She said that as it was there was not enough space

for writing. We explained that the initial thought had been to create a document where all information could be collected. She said that she would suggest having one document per user involvement, and concluded that storing and retrieving several documents would not be an issue for them. Furthermore, she said that it would be important to be able to access the templates both physically and digitally since it varied a lot what people would prefer.

Overall, it was a positive feedback session that gave some good things to work with in terms of future works as well as things to consider when doing the final presentation for their entire office.

# 5. Discussion and reflections

This chapter discusses how the thesis addressed the research question: "How can we leverage service design tools and methods for the development of urban public spaces to support the landscape architect field?" Drawing on insights from our collaboration with Thing Brandt Landskab and the development of a design brief, we reflect on how service design methods can enhance participatory processes and evaluation practices within landscape architecture. We present our proposed evaluation framework, consider how it meets key design criteria, and reflect on its limitations and potential for broader application. Finally, we discuss our learning outcomes, both in relation to the program's official goals and our own personal development as service designers working across disciplines.

- 5.1 Solution discussion
- 5.2 Meeting the design criteria
- 5.3 Reflections and limitations
- 5.4 Reflections on learning goals

### 5.1 Solution discussion

In the beginning of the project we defined a research question:

"How can we leverage service design tools and methods for the development of urban public spaces to support the landscape architect field?"

Through an iterative design process, supported by academic literature, we developed an evaluation framework to assess both user involvement processes and user satisfaction with the outcomes of urban design interventions. Because of time constraints, and the nature of landscape architecture projects which usually have a very long timeframe, we were not able to implement the framework within the timeframe of the thesis. However, the framework still offers valuable а contribution to the dialogue between participatory practice and evaluation of landscape design.

The following section will discuss how we answered the research question based on reflections of our collaboration with Thing Brandt Landskab as well as our work with the design brief.

Our collaboration with Thing Brandt Landskab and working on the design brief provided us with valuable insights into the work practices, mindsets, and challenges of landscape architects. The collaboration grounded our research into the realities of professional landscape architecture practice, and confirmed several overlaps between service design and landscape

architecture that was also identified in the literature review. Both landscape architecture and service design deals with diverse, context dependent projects, and both fields emphasize user centered values. However, our observations confirmed that service design typically enters projects with a more structured and guided process for initial discovery, stakeholder engagement, and iteration, where the field of landscape architecture relies a lot on the experience of the landscape architect to determine the best approach for each specific project.

This structured approach of service design could potentially benefit the landscape architecture field, where you often must navigate multiple stakeholders and complex spatial contexts, without having clear tools for evaluating the success of user involvement. Therefore, by including service design methods in an evaluation process, you could improve both the collaboration with users as well as strengthen user engagement and satisfaction, by ensuring a continuous reflection on and improvement of the processes and their outcome.

Our evaluation framework aims to support the development of urban public spaces by introducing a structured method for evaluating how users are involved and how satisfied they are with the outcome of the project. **Implementing** evaluation an structure within their work process is particularly beneficial for the interventions made in urban spaces since this is a space continuously changing due to natures and societies naturally evolving character and will therefore be very different from context to context. This allows for more knowledge

that can be applied when similar projects are made in the future.

Beyond addressing the immediate goals of one project, the framework encourages a longer-term perspective by enabling future projects to benefit from the insights and reflections generated in previous ones. The systematic documentation of user feedback and reflections of user involvement can be particularly beneficial for newly educated landscape architects, who might not have same intuitive understanding professional experience as their colleagues. By including a systematic approach of evaluation into their design process, they can develop a more reflective and evidence informed practice from the beginning of their careers.

### 5.2 Meeting the design criteria

The design criteria for our solution was time efficient, cost efficient, strengthening user ownership, enhancing/improving user interactions and providing validation and insights on designs.

As the design process in landscape architecture is possible to enter at different stages, an adaptive evaluation framework is made, making it able to build it according to the specific design phase you are currently working in. The framework takes the time aspect into consideration by allowing steps in the framework to be optional such as the knowledge sharing. It should also be quick and easy to prepare and able to do within the timeframe of their work hours. It doesn't

add any big additional amounts of costs which is also very related to the time efficiency.

The evaluation approach implemented particularly strengthens user centricity by reflecting on the process and outcome of user involvement in their projects. This allows the user to get more influence over time. By doing this, more considerations will be taken towards adapting solutions based on real user needs and emotions, hence improving users ownership as well as user interactions. The outcome of the reflections naturally informs future designs by providing validation and/or insights from previous evaluation.

### 5.3 Reflections and limitations

One limitation of our solution is that Thing Brandt Landskab is a relatively small company, and therefore the framework development was based on data from a limited number of people, which might limit the generalizability of our insights and thus the framework. We do still see a potential for the framework to be applied more broadly as challenges discovered in the industry overall show lack in stakeholder management and effective user involvement, making evaluation essential in order to improve and build knowledge throughout the industry. This applies especially for other landscape architecture firms that want a systematic approach to evaluate and improve their user involvement processes and measure user satisfaction.

It is important to note that Thing Brandt Landskab is a company that already places a strong emphasis on user involvement, which is reflected in their practices. This influenced how the framework designed. For companies that currently have less of an emphasis on participatory methods, the framework may need to be adapted or supplemented with additional tools to be effective. In this sense, the framework is most directly applicable in contexts where there is alreadv willingness to engage users, but where the process and outcomes of that engagement are not yet formally evaluated.

Another limitation of our design process was that we were not able to speak directly with users from one of Thing Brandt Landskabs projects. Not having access to users limited our perspective and prevented us from fully understanding perspective on user involvement, what value they place on it and how they perceive their role and influence in a project. Having included this input could have strengthened the framework by ensuring it reflected not just the view of the landscape architects and how they perceive the users and user involvement, but also the user's own experiences and expectations.

### 5.4 Reflections on learning goals

### 5.4.1 Official learning goals

This thesis project was guided by the learning objectives outlined in the Service

Systems Design master's program at University. Aalborg These objectives provided strona academic professional framework that helped us shape both the direction of the thesis as well as the final delivery of our project. Working on this master's thesis in collaboration with Thing Brand Landskab has given us the opportunity to apply the knowledge we have gained throughout our studies in a real-world context. Throughout the project we have applied the methods and principles of service design through working on our design case. We have demonstrated the ability to select and apply appropriate methodological approaches, and we have used service design methods such as journey mapping, co-creation and blueprints. Through the project we have applied systems thinking to create a reflected understanding of our design research and practice, ensuring that our solution was grounded in relevant design theories. Furthermore, we conducted an extensive literature review, which allowed us to frame our design challenge within a broader academic and professional context.

Through working with our collaboration partner we were able to identify and frame a complex design problem with both societal and organizational dimensions. Through iterations of research, synthesis, ideation, and validation, we developed a solution that addresses the needs of both users and stakeholders. Working with Thing Brand Landskab allowed us to apply knowledge and evaluate the broader implications of our design, through conversations with them. Through visual representations and storytelling, we were able to communicate our design propositions clearly.

The project allowed us to dive deep into the interesting field of landscape architecture and challenged us to navigate ambiguity and uncertainties that can arise when working with an unknown field. This required flexibility, critical thinking, and the ability to act on emerging insights. This interdisciplinary collaboration with experts from landscape architecture greatly enhanced the relevance and depth of our design solutions.

### 5.4.2 Personal learning goals

Throughout our project we have been greatly motivated by exploring service design methods and approaches by applying them in an unfamiliar field. This has allowed us to gain a broader understanding of how we can apply our methodological toolbox in different contexts and have increased our confidence as service designers. We have deliberately focused on enhancing our visualization skills, which significantly improved our ability to communicate complex ideas and foster stakeholder engagement.

Furthermore, we contributed to research by exploring the intersection of service design and landscape architecture, addressing how service design thinking can enhance urban development projects. The final design output serves as a tangible example of this interdisciplinary collaboration. By maintaining a structured workflow, we not only improved project efficiency but also

supported individual well-being, which proved essential in managing the demands of a thesis.

# 6. Conclusion and future works

This chapter summarizes the key insights and contributions that emerged from the research and design process. It revisits the initial aim of exploring how service design could meaningfully enhance the field of landscape architecture, particularly in addressing challenges related to user involvement. By reflecting on both the theoretical grounding and the practical explorations conducted in collaboration with Thing Brandt Landskab, this conclusion consolidates the central arguments of the thesis, highlights the value of the proposed evaluation framework, and outlines potential next steps for further development and implementation.

This thesis set out to explore how service design tools and methods might be used to enhance the field of landscape architecture. Through an extensive literature review we explored the nature of the field of landscape architecture and identified challenges with the complexities of stakeholder management and limitations of user involvement. We then explored how service design rooted in human-centered, holistic, and collaborative methodologies might offer meaningful contributions to address these challenges. The research revealed a strong alignment between the systemic, user-centered nature of both disciplines. However, while landscape architecture often relies on the intuition and experience of the designer, service design offers structured frameworks and tools that facilitate collaboration. enhance user engagement, and provide systematic evaluation throughout a project lifecycle.

Through our collaboration with the landscape architect company Thing Brandt Landskab we explored the work processes of landscape architects through interviews, design probes and observations, understand current practices and areas for improvement in user involvement. This work revealed a clear motivation within the field to better structure and evaluate participatory practices, but also exposed practical limitations, such as time communication gaps, constraints, and uneven representation among stakeholders.

In response to this exploration we decided to create a framework of evaluation tailored to the landscape architecture work process, that integrates methods, tools and mindsets from service design, post-occupancy evaluation, and program evaluation. This framework is a structured approach that enables landscape architects to document, reflect on, and improve their user involvement practices, while supporting the long-term success of projects in urban public space. Importantly, the framework is designed to be adaptable to the unique contexts of each project and the varying levels of user participation.

With this framework we do not seek to use service design to replace the current practices of landscape architecture, but to enrich them. By incorporating service design's structured methods, tools and reflective mindset through evaluation, landscape architects will ultimately be able to better navigate the complexities of modern urban projects, ensure more inclusive and meaningful user involvement, and create more resilient and responsive public spaces centered around user needs.

This project presents an initial representation of the framework. For the framework to be implementable in a landscape architect company it would however be essential to create a guidebook for the framework so that it is easy and accessible to include in a work process. The guidebook should provide a detailed explanation of the different steps in the as well as evaluation process. explanation of each different method and tools and how to apply them in an evaluation context. As mentioned in the discussion, Thing Brandt Landskab is a small company that may not represent the experience of all landscape architecture companies. Therefore a future guidebook should reflect the option of personalisation of questions and methods, so it can be adapted to any context and need and personalised to the company.

Furthermore this framework has not yet been tested since that was outside of the scope of our thesis, it would however be essential to test the framework, before fully implementing it.

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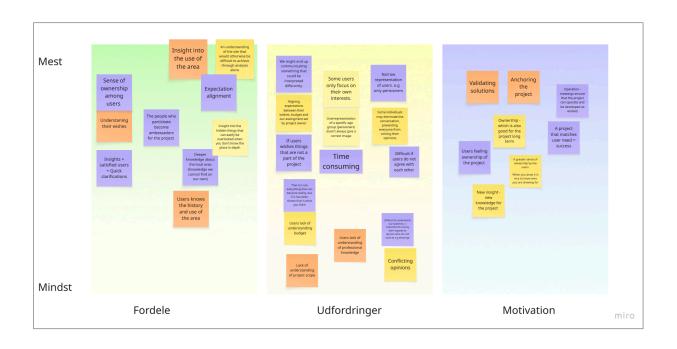
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## 8. Appendix

### Appendix A

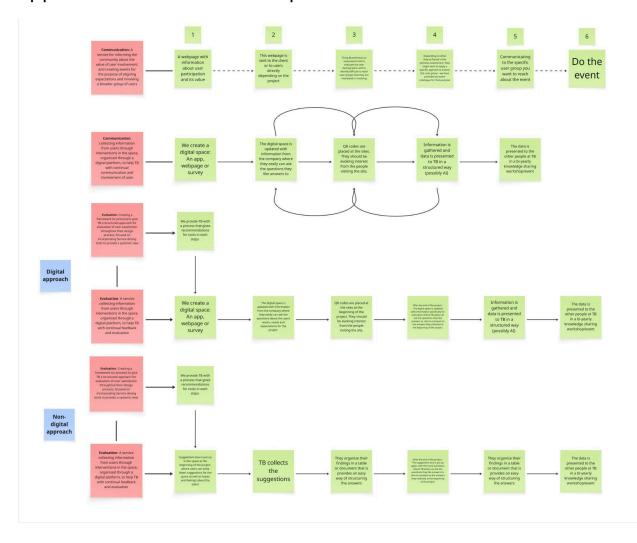




### Appendix B - Qualitative email questions

- 1. Which methods do you use to collect data from user involvement?
- 2. How do you analyse and treat data for user involvement once you have returned to the office?
- 3. How do you choose which types of user involvement that works best for different types of projects?
- 4. Do you evaluate the user involvement methods after the projects have ended to judge if the methods were effective or the most suited?
  - If yes, how is this evaluation typically done?

### Appendix C - Ideation concepts



### Appendix D - Project Pitch

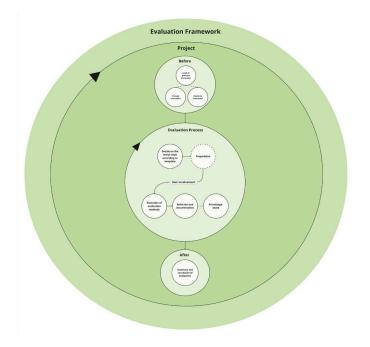
### Thing Brandt Landskab

EVALUERINGSFRAMEWORK

#### INTRODUKTION

- FORDELE VED EVALURING
- PROCESS EVALUERING
- RESULTAT EVALUERING

### FRAMEWORK





### EVALUERINGSPØRGSMÅL OG METODER

- Hvad var brugernes første tanker og meninger om projektet?
- Cultural probe
- Interviews
- Spørgeskema

- Fik brugerinddragelsesmetoden os til at forstå brugernes følelser, behov, ønsker, motivationer og adfærd?
- Empathy map
- Emotional journeys

- Hvad er brugernes tanker og meninger om løsningen?
- Spørgeskema
- Costumer journey map

#### STORYBOARD

Eksempel på procesevaluering















### STORYBOARD

### Eksempel på resultatevaluering







They prepare an outcome evaluation plan using the template provided. Here they define the methods they are going to use, their purpose and chose evaluation questions and methods for these steps.



They decide to do a cultural probe, meaning, they create a way to collect data from users of the space without needing to be present. They collect data through a QR code that they connect to a survey.



They visit the space to place the QR code.



At the office, they place the information collected from the survey into a customer journey map and reflect.



After 3 years they place the cultural probe again.



At the office, they collect the data into the customer journey map and reflect. Here they can also compare the results to the previous customer journey map.



After having done all of the outcome evaluation, they gather their data into their existing data storage system, summarize an draw conclusions.



They then decide to share this knowledge on one of their weekly meetings with the office.

### Tak!