PlaceToBe

Integrating Service Design and Foresight for a participatory urban renewal planning process in Copenhagen

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PlaceToBe: Integrating Service Design and Foresight for a participatory urban renewal planning process in Copenhagen

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I. Abstract

Nowadays, cities face numerous challenges and necessitate long-term strategies to promote urban resilience and achieve desired futures. Collaboration between urban planners and citizens is essential to navigate the complexities of modern urban environments. To address urban issues effectively, designers must conduct extensive research on urban systems while involving citizens in visualising future urban settings.

This master's thesis investigates how Service Design and Foresight can be adapted to urban planning processes, specifically when translating citizens' visions into action. Using a research-through-design methodology, the design process addresses this focus, exploring and gathering data from the chosen fields and applying Service Design methodologies to deliver a final service concept.

The design process resulted in PlaceToBe, a service developed for the urban renewal department in the Copenhagen Municipality.

The service is based on an implemented urban renewal process and includes a digital platform to enhance citizen engagement. In addition, the Lenses Framework is presented as a tool for urban planners to analyse future visions and gather data from stakeholders across a set of thematic layers: local context, social, political, environmental, economic, technological, and legal.

This research underscores the importance of applying a systemic and participatory perspective from Service Design to navigate urban complexity, delivering resilient strategies through the implementation of Foresight methodologies in the urban process.

Keywords: Service Design, Foresight, Urban process, Visioning, Participatory approach

II. Acknowledgements

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III. Index

Introduction

1.

In this chapter, the topic of this thesis is introduced. The chapter starts by outlining our motivations and learning objectives and then explores the context of the project.

The following sections will be discussed in this chapter:

1. Introduction

“The city is humankind’s most complex and extraordinary creation. It can be understood as a living organism” (Sudjic, 2017, p. 219). Indeed, both organisms and cities can be seen as a system of flows and materials that interconnect and collaborate in various ways (Doogle et al., 2023). And it is in this complex system that cities today are grappling with challenges, like rapid population growth and climate change. Thus, it is crucial for cities to adopt strategic decisions to enhance resilience and achieve preferable visions for the future. In light of this, decision-makers – urban planners, politicians, policy-makers – must rethink, in collaboration with citizens, their processes to address the increasing complexity cities face. Many cities, including small and medium-sized ones, have developed strategies to adapt to this growing complexity (Cité du Design & Clear Village, 2018). And it is in these strategies that design plays a key role with its ability to improve living standards (Cité du Design & Clear Village, 2018 p. 6). In fact, designers can use their skills to translate people’s needs into services and products that enhance the city (Cité du Design & Clear Village, 2018, p. 10). The role of designers in this process is potentially decisive – that is, if they meet the challenge. It is up to them to design this transition (Doogle et al., p. 10).

To truly improve city functioning and solve tricky urban problems, designers must research the underlying systems, operations, uses, and performances of the urban fabric (Dooghe et al., 2023, p. 9). And, to design something meaningful for the future, they should involve citizens in reinventing the city for decades to come (Cité du Design & Clear Village, 2018, p. 9).

As service designers, our expertise in translating human needs into effective and innovative solutions is crucial for addressing the multifaceted challenges cities face today. Indeed, by engaging with citizens and stakeholders, service designers can facilitate co-creation processes that secure community visions and needs, which are central to urban development. Additionally, combining Foresight approaches with urban projects allows for rethinking systemic processes and preparing for future challenges.

In light of this, this thesis proposes integrating Foresight into Service Design to tackle urban challenges, bringing future perspective and addressing the biases and assumptions about the present and future. Meanwhile, Service Design contributes with its systemic and participatory perspectives.

Through the analysis of the problem statement, this paper highlights key findings relevant to the integration of Foresight and Service Design. These findings aim to assist urban planners of the Copenhagen Municipality in adopting an urban renewal process that effectively transforms citizens’ visions into future-proofed action plans and strategies.

1.1 Authors and Motivation

This document is a master thesis, written by Anna Baldo and Marta Giacosa for the master’s programme Service Systems Design at Aalborg University Copenhagen. The project has been carried out from February 1st until May 24th 2024 and has been supervised by Luca Simeone.

The motivation behind this project stems from a shared interest in *cities*, envisioned as living organisms where urban life and culture flourish. The aim of the thesis is to explore the potential for integrating Service Design with city planning, emphasising the support that service designers can provide to architects and urban planners. Furthermore, we looked at how integrating Service Design and Foresight might support the development of practical long-term goals by identifying and tackling urban future challenges.

This thesis articulates our goal to become service designers who employ tools and resources to make an important impact and positive change. We aim to support people in creating desirable and sustainable futures, thereby contributing to a better world to live in.

1.2 Learning Objectives

This thesis's learning objectives align with both our individual learning objectives and the official ones set out by Aalborg University's Service Systems Design department.

1.2.1 Official Learning Objectives

Aalborg University (2017) established a set of official learning objectives that each of its students has to accomplish. As part of our master, we need to demonstrate our acquisition of knowledge, skills, and competences.

Knowledge

- Must have knowledge about the appropriate methodological approaches to specific study areas
- Must have knowledge about design theories and methods that focus on the design of advanced and complex product-service systems
- Must have knowledge about the relevant literature in the Service Design field
- Must account for the scientific foundation, and scientific problem areas
- Must describe the state of the art of relevant research

Skills

- Must be able to work independently, to identify major problem areas and adequately address problems and opportunities
- Must be able to analyse, design and represent innovative solutions
- Must be able to evaluate and address major organisational and business issues emerging in the design of a product-service system
- Must be able to master the scientific methods and general skills associated with the problem area
- Must be able to produce a project report according to norms of the area, apply correct terminology, document extensive command over relevant literature, communicate and discuss the research-based foundation, problem and results of the project orally, graphically and in writing in a coherent manner

- Must be able to critically evaluate the results of the project in relation to relevant literature and established scientific methods and models, evaluate and discuss the project's problem area in a relevant scientific context
- Must be able to evaluate and discuss the project's potential for further development

Competences

- Must be able to master design and development work in situations that are complex, unpredictable and require new solutions
- Must be able to independently initiate and implement discipline-specific and interdisciplinary cooperation and assume professional responsibility
- Must be able to participate in, and independently carry out, technological development and research, and apply scientific methods in solving complex problems
- Must be able to plan, execute and manage complex research and/or development tasks, and assume a professional responsibility for independently carrying out, potentially cross-disciplinary, collaborations
- Must be able to independently assume responsibility for own scientific development

1.2.2 Personal Learning Objectives

In order to better manage expectations and needs, individual learning objectives were developed according to each group member's personal motivations.

- Demonstrate the potential for integrating Service Design with city planning, highlighting why urban or architectural agencies should consider collaborating with service designers
- Explore how the combination of Service Design and Foresight can enable designers to anticipate and address future challenges, contributing to the establishment of realistic long-term goals
- Acquiring knowledge in regard to the urban planning and Foresight fields
- Investigate the value and necessity of stakeholder participation, examining when, where, and how it should be incorporated into the design process

In addition to these, we established some other personal goals regarding the process:

- Engage real stakeholders to create a viable and impactful project
- Learn to navigate uncertainties and unexpected barriers, addressing them creatively
- Improve our management and organisation skills

1.3 Forming A Focus Area

Through months of research dedicated to exploring urban themes — including reading books, articles and listening to podcasts — we eventually selected three main topics to explore that together form the focus of our thesis (Figure 1). The first is Service Design, chosen due to our academic interest and the relevance to our master's program. The

second is cities, specifically participatory urban planning, driven by personal interest and passion. The third is Foresight, encountered during our studies but never fully explored, making this a fitting opportunity to delve deeper into it.

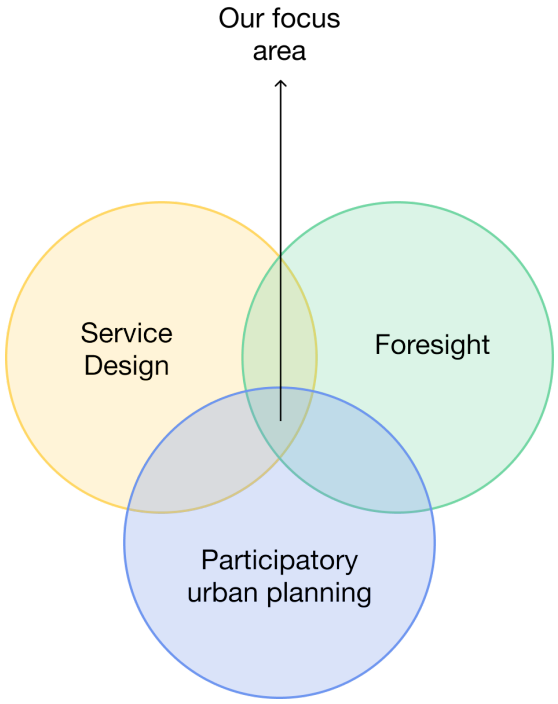


Figure 1. The three themes of the thesis

The aim of this focus area is to examine how Foresight and Service Design can be combined to make participatory urban planning processes more long-term oriented. To do this, the Design Case presented in chapter 4 is utilised.

The initial problem statement for this thesis is presented as follows:

How might we design a service that helps the Copenhagen Municipality to integrate participatory long-term thinking in the development of the city?

1.4 Reading Guide For This Thesis

After the introduction, the structure of the thesis is described as follows.

Chapter 2. Literature Review

This chapter establishes the thesis' theoretical foundation, which consists in an exploration of relevant literature progressively transforming into an specific research focus. The topics in this literature review cover Service Design, Foresight and Visioning. The chapter concludes with the identification of a gap found in the literature related to the actionability of visions, which will be the research focus for this master thesis.

Chapter 3. Methodology

This chapter explores the methodologies and approaches chosen to guide the thesis process: Double Diamond and research-through-design. Furthermore, it outlines the limitations identified prior to starting the design process.

Chapter 4. Design Case

This chapter details and reflects on the design process, which is used to explore our academic research question. In the Discover phase, desk research and various user research approaches are used to gain an understanding of the context around urban planning, citizen involvement, and Foresight. In the Define phase, these results are utilised to narrow down a particular focus area. During the Develop phase, a new process and framework are created, along with an ideation session to shape our service. In the Deliver phase, a final concept is developed based on the insights gathered throughout the process.

Chapter 5. Discussion

This chapter presents a critical discussion of both the research question and the design process. It contains reflections on the next steps of the final service and on the learning objectives achieved during the project.

Chapter 6. Conclusion

The accomplishments of this project as a whole are finally covered in this section.

Literature Review

2.

This chapter establishes the thesis' theoretical foundation, which consists in an exploration of relevant literature progressively transforming into an specific research focus. The topics in this literature review cover Service Design, Foresight and Visioning. The chapter concludes with the identification of a gap found in the literature related to the actionability of visions, which will be the research focus for this master thesis.

In this chapter, the following subchapters will be examined:

2.1 Service Design

According to Penin (2018), Service Design is the activity of choreographing people, infrastructure, communication, and material components of a service in order to create value for the multiple stakeholders involved. In addition to its holistic, collaborative, and human-centred nature, the discipline encompasses strategic considerations as well as a multifaceted strategy (Blomkvist et al., 2010). With this perspective, Service Design is seen as more than just a procedure; it is a way to approach critical problems by involving a variety of viewpoints and approaches in the pursuit of lasting and significant solutions.

In the following sections of this subchapter and for the purpose of the thesis, specifically two dimensions of Service Design will be examined: the systemic dimension and the participatory dimension.

2.1.1 The systemic dimension in Service Design

During the last decades, there has been a significant change in how society views the role of design. The emergence of significant large-scale problems and the recognition of designers' responsibilities have prompted a reexamination of the ways in which design can have a role in systemic change (Morelli et al., 2021).

The concept of systems thinking lies at the heart of this reexamination. In contrast to conventional design methods, systems thinking places emphasis on the structure, patterns, and connections within systems. Systems thinking reveals the underlying dynamics that influence a system's behaviour by examining the connections between different components. This viewpoint shows the "invisible" characteristics and components that are below the surface, similar to the part of an iceberg that is not visible (Darzentas & Darzentas, 2014, 2016).

As presented by Lin and Villari (2023), the application of systems thinking to the field of Service Design has resulted in the development of novel techniques and procedures. A noteworthy evolution is the introduction of Product Service System Design (PSSD) and a range of techniques and instruments designed to locate and examine components and connections inside systems. A few of these tools are stakeholder maps, system maps, ecosystem maps, and service blueprints. These methods tackle the innate complexity of Service Design and offer a framework for negotiating complicated systems (Lin & Villari, 2023).

Understanding the institutional landscape in which systemic change takes place is essential to any study of the topic. According to Morelli et al. (2021), the concept of ‘institutional landscape’ refers to the system of values, rules, and social, cultural, economic and political premises that frame the change and facilitate the changes that are consistent with this framework, while hindering those that are not (Morelli et al., 2021). By understanding how this institutional landscape facilitates or hinders progress, designers can navigate this field.

Therefore, the systemic dimension of Service Design emphasises the interconnectedness of elements. The relationship between both small and large scales, the comprehension of macro-systems, and the personal realm in relation to people's wants and behaviour must all be considered while observing developments from a systemic perspective (Villari, 2022).

2.1.2 The participatory dimension of Service Design

When talking about Service Design, the importance of collaboration comes up as a pillar for creating services that work (Stefan, 2009). In addition to this, according to Stefan (2009), Service Design initiatives place an emphasis on people's innate skills and capacities, making them the main agents of change within the service development process. In order to maximise results, this approach requires working with a variety of stakeholders, utilising a range of channels, and opportunistically alternating between service offers and channels (Stefan, 2009). In line with this idea, the Interaction Design Foundation (n.d.) emphasises the value of participatory approaches, especially for services or projects that have broad consequences, like government or city initiatives. This statement highlights how important community involvement is to make sure that Service Design processes are inclusive and responsive, improving their relevance and effectiveness in meeting the requirements of a variety of stakeholders.

Expanding on these viewpoints, according to Penin (2018), the user-centred design approach relies on a close and continuous consideration of users, ensuring that their needs and perspectives are central in the development of a new product, service, or process. Thus, through the implementation of a human-centred approach, Service Design methodologies are able to effectively capture the many requirements and views of various groups, ensuring that their voices are heard in shaping the development of the settings under analysis. For these reasons, people who belong to communities, families, cities, and cultures need to be considered in all the complexity determined by these relationships (Penin, 2018). As a matter of fact, service designers can add different perspectives to the process, enabling a more complete overview on the needs of the target group analysed. Indeed, to resolve the most challenging problems, designers are required to have a holistic mindset and the ability to manage the human-centred dimension and multi-stakeholder design processes (Villari, 2022).

2.1.3 Urban realm and Service Design

Services are one of the critical infrastructures of contemporary society, and urban contexts are a privileged arena in which to experiment with Service Design by adopting a systemic, collaborative,

and large-scale perspective, supporting the disciplinary advancement towards greater integration of complexity as an element that connotes both conceptual frameworks and practices (Villari, 2022).

In order to achieve this, a large number of stakeholders is needed: municipalities, developers, designers (architects, urbanists, landscape architects) and not least citizens. Cities can promote inclusive decision-making and collective wisdom by engaging these stakeholders in the planning process, ultimately creating more sustainable, resilient, and livable urban environments (Dash, 2023). This entails rethinking how individuals receive and use services, with an emphasis on lowering disparities, improving access to necessary services, and encouraging responsible management of the urban environment.

Therefore, service designers have to handle complicated systems, oversee long-term significant changes, and engage with a variety of stakeholders who play different roles and contribute to the decision-making and design process. This scenario highlights the need to move from the individual and the one-to-one relationship between

provider and user, to a systemic and large-scale vision with transformative impact (Villari, 2022). Additionally, by placing a strong emphasis on innovation and teamwork, Service Design helps cities to change and adapt to shifting social, economic, and environmental circumstances, promoting sustainability and long-term resilience (Villari, 2022). Finally, cities can build more successful, livable, and inclusive communities for coming generations if they embrace Service Design as a strategic instrument for urban development.

2.1.4 The future in Service Design

Nowadays, designers deal with a complicated array of issues, and the choices they make now have an impact on future generations. In this situation, the most important thing is to plan how to get through the transition rather than argue whether it is necessary or not.

The complex dynamics of global systems, such as economic, climate, social, technological, and health domains, bring a high level of uncertainty and make it more challenging to build service ecosystems that are resilient to changes (Kleinaltenkamp et al., 2018). As well, the transformational challenges of Service Design in a human-centric paradigm are driven by human behaviour, attitudes, needs, and desires (Polese et al., 2021). It is important to consider, however, that these human dynamics are governed by endogenous forces within systems, making transformative challenges unpredictable (Mager et al., 2020).

Even though Service Design can be described as future-oriented and as an iterative dialogue between divergence and convergence (Brown, 2009), the solutions are usually utilised for the present or for short-term horizons. The issue is that focusing just on short-term results while designing runs the danger of ignoring the unanticipated consequences, which could impede adoption or exacerbate adverse effects (Jones et al., 2019).

According to Lin and Villari (2023), Service Design needs to evolve to further think critically about the problem from a longer-term perspective, considering how internal and external influences at different levels of the system may change the behaviour and needs of actors within systems over time. The authors explain that this is necessary to address the challenges of uncertainty, create services that are more resilient to potential changes, and play an active role in fostering a radical transformation of service systems.

2.2 Foresight

2.2.1 A definition of Foresight

Foresight can be described as “a universal human capacity which allows people to think ahead and consider, model, create and respond to future eventualities” (Conway, 2008, p. 1). Foresight represents a paradigm shift from traditional predictive approaches. Rather than viewing the future as a fixed destination, Foresight acknowledges its dynamic and uncertain nature. This perspective, articulated by Mountford and Christensen (2022), emphasises the agency of individuals and organisations in shaping the course of events through present actions and strategic choices. Foresight encompasses a wide range of approaches and activities designed to help business stakeholders deal with uncertainty (Buhring & Liedtka, 2018). It is advantageous because it gives decision makers a common

understanding of change, future scenarios and their implications, all of which enhance the organisation's capacity for making strategic decisions (Buhring & Bishop, 2020). In fact, since Foresight acknowledges the world's intrinsic complexity, it inspires stakeholders to recognise uncertainty as a chance for creativity and adaptability.

Indeed, as Wilhelmer (2016) explains, Foresight allows: 1) the acceleration of change in science and society offering Foresight expertise beyond short-term horizons; 2) the increase of interdependencies and interlinked networks by widening classic planning limits; 3) the limitation of room-of-manoeuvre of individual key-actors by carrying out coordinated action in the meaning of process and result; 4) answering to the demand for concerted orientation and visions by integrating diverse perspectives, disciplines as well as implementation of results while mobilising stakeholders through participation.

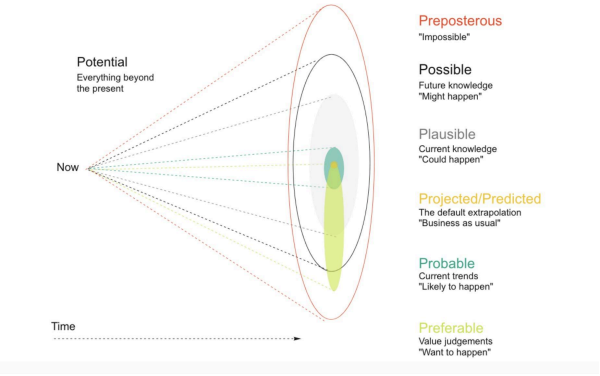


Figure 2. Future Cone (Mountford & Christensen, 2022)

A useful tool for visualising the various approaches to Foresight is The Future Cone (Figure 2), a visual model conceptualised by Tacket (1993) to illustrate different types of futures in an array of levels, or cones. As Mountford and Christensen (2022, pp.3-4) identified, there are eight types of futures that might be used to describe the different futures:

- *Possible futures* include all the futures we can imagine, no matter how unlikely and science fiction like they may seem. In possible futures, you consider what might happen based on knowledge not yet possessed.

- *Plausible futures* are possible futures we think could happen given the current knowledge of physical laws, social processes etc., are considered.

- *Probable futures* are futures that are likely to happen are in focus. They can be described as descriptive forecasting since these will be made from appraisals of likely trends and future developments therefrom.

- *Projected or predicted futures* are considered the default baseline of the future if nothing happens and business as usual is being pursued.

- *Preposterous futures* are events that are unlikely or impossible to happen. These futures are often judged as “ridicules" or something that will never happen.

- *Preferable futures* capture in contrast to the previous classes what we want to happen in any of the classes.

2.2.2 Strategic Foresight

The practice of examining the current situation for any purported change-drivers and then using strategies and tactics to facilitate the necessary change is known as Strategic Foresight. According to Buhring and Bishop (2020), it is similar to strategic design since both use strategies to create visions that eventually guide decision-making and implementation inside organisations.

Strategic Foresight refers to a wide range of strategies and techniques meant to assist companies in navigating uncertainty. This can include more imaginative and interactive methods like design-driven Foresight, as well as more traditional methods like trend analysis and scenario planning. Moreover, organisations can gain an in-depth understanding of potential future trajectories and their implications by integrating systematic futures thinking. (Buhring & Liedtka, 2018)

Although we cannot know what will happen, we shape with today's actions our future and create pictures of our world of tomorrow (Wilhelmer, 2016). To do that, Foresight is needed. Through recognising and addressing complexity and unpredictability, Foresight enables people, institutions, and communities to embrace a mindset of readiness, flexibility, and resilience. It develops the ability to anticipate strategically, allowing stakeholders to recognise new trends, possible challenges, and envision different futures. By doing this, Foresight becomes a tool for both comprehending the present and navigating the uncharted territory of the future.

2.2.3 The Foresight Process

Foresight requires thinking to move from implicit to explicit, from individual to collective, and from unconscious to conscious, before an organisation can begin to think systematically about its future, and use subsequent insights in its strategy development (Conway, 2008). In order to do that, the Foresight process has been developed to help organisations and stakeholders to shift their perspectives and look into the future. This is because in organisations, Foresight methodologies have a particular role in the strategy development process. Indeed, Foresight informs the thinking that occurs before strategic decisions are made by expanding the perceptions of the strategic options or choices available to the organisation. (Conway, 2008)

As Mountford and Christensen (2022) suggested, there are four key phases in a Foresight process, designed to guide stakeholders to navigate through the process of fostering long term thinking. The first phase is the *Input phase*, when information is gathered and scanned. Next, the *Foresight phase* consists of the analysis and interpretation of the input. Methods such as scenarios and visioning are used to create a forward view for the insights and to explore how different types of futures might play out. Thus, the *Foresight phase* will end by questioning "what might happen?". In the *Output phase,* both tangible and intangible outputs are possible. A tangible output could be actual options for the organisation to pursue, while an intangible output could be a change in "mindset" about a given subject. Finally, comes the *Strategy phase*, used by decision-makers for their considerations on which actions should be taken. For a strategy process to succeed, actions need to feed into inputs in an iterative loop of reassessment.

2.2.4 Challenges of Foresight

Critiques and challenges related to Foresight were important to investigate in order to fully grasp its benefits and potential, as well as the obstacles and potential drawbacks that this discipline might encounter.

One of the main challenges is the imbalance within the planning and long-term thinking field. As argued by Ramos (2019), the reason is that this domain has historically been controlled by experts seeking to gain a competitive edge and usually working for big organisations and IT companies. On the other hand, the conventional subject of Foresight has been more accessible to a wider range of specialists, including governments, industry and academia. Nevertheless, Ramos (2019) criticises that the disparity persists since experts continue to dominate the area.

Another aspect related to this challenge consists of the representation of future generations that do not yet exist in the process of framing the future, along with the reality that most future planning activities are usually carried out by a small number of privileged people (Uwasu et al., 2020). Thus, futures are planned in a non-representative way as a result of both of these factors (Uwasu et al., 2020).

2.2.5 Participatory futuring

In view of the challenges presented in the previous section, many researchers and Foresight experts have also wondered how to solve the problem of non-representative planning. How can a futuring initiative ever have a truly transformative impact if it only focuses on the external world but neglects the decisive role of individual and societal attitudes, norms, and belief systems? Effective futuring, one could argue, demands to do justice to the intimate relationship between mind and (un)sustainability (Neuhoff et al, 2023). Participatory futuring may provide an answer to this question. This is because to foster long-term thinking, it is important to include different perspectives in the Foresight process. Thus, the integration of participatory futuring can open up and also allow less privileged perspectives to participate in contemplating and deciding about the future (Nikolova, 2014).

A significant shift has taken place in the way we envision and shape the future as a result of participatory futuring (Neuhoff et al, 2023). Thanks to its collaborative practices, organisations can explore, envision, negotiate, and shape alternative futures by involving a broader range of actors. These actors may include diverse stakeholders who have historically been excluded from these processes (Neuhoff et al, 2023). A broad range of society can influence the future through its collective actions and imagination, according to this approach.

Another benefit from the addition of participation in the Foresight process is given by the fact that participatory Foresight initiates mutual learning processes (Wilhelmer, 2016). Participants engage in dialogue, debate, and deliberation through collaborative activities such as workshops, scenario planning, and visioning exercises. This process allows them to share their knowledge and expertise with each other as well as to learn from others with diverse perspectives and viewpoints. Furthermore, when relevant discoveries are collectively evaluated, internal transformation processes are sparked, altering social systems' cultures and values (Wilhelmer, 2016).

On the other hand, we must acknowledge that the Foresight act does not come natural for everyone and requires a maturation of companies' imagination (Mountford & Christensen 2022). In an organisational context, Foresight is not necessarily recognised or universal, and overt processes generally need to be put in place, supported by specific methodologies, in order to develop an organisational capacity for Foresight (Conway, 2006, p.1).

2.2.6 Design driven Foresight

Foresight and design have been supporting each other for a long time and in many ways, contributing to the establishment of a beneficial "Design driven Foresight" perspective.

The integration of design and Foresight can produce visions of desirable futures through systematic thinking and an active experimentation to gather new knowledge and learning (Kulsbjerg Løgager et al, 2021). Indeed, "Foresight by Design" , which combines design-led and systematic futures thinking of preferable and desirable futures, in ways that embrace their synthesis (Buhring & Liedtka, 2018), offers a holistic and human-centred way to explore, imagine, and shape the future. It encourages collaboration, experimentation, and iteration, enabling stakeholders to actively participate in the process of co-creating preferable futures. Moreover, this kind of futures thinking offers multidisciplinary stakeholders a common language for employing Design thinking methodologies and Foresight techniques to inform strategic opportunities for innovation that build on shared visions of preferable or desirable futures. In this context, futures thinking can be seen as activities focused on detecting medium to longer-range opportunities and possibilities for strategic innovation (Buhring & Liedtka, 2018).

Additionally, Buehring and Bishop (2020) offered an alternative method for strategic decision-making that deviates from traditional planning techniques. Their method tries to create transformational change by working on existing systems, in contrast to traditional planning, which usually focuses on making incremental changes within current systems. Where the purpose of a traditional approach is to work in an existing system, the new approach aims at working on existing systems to make transformational change rather than incremental improvement, and the focus is therefore on rethinking systems instead of being bound to them (Mountford & Christensen, 2022). According to Neuhoff, Simeone and Holst Laursen (2022) this new approach can then lead to bottom-up processes aimed at redirecting broader socio-economic systems from unsustainable trajectories towards sustainable futures. Rather than focusing on strategic planning as a discrete management activity for maintaining corporate sustainability, this approach expands participation and agency to actors who can play a crucial role in addressing wicked sustainability challenges.

Simeone and D'Ippolito (2022) specifically identify three areas where design has impacted Foresight: involvement, visualisation, and facilitation. Design techniques have been employed to deliberately involve non-expert audiences in the Foresight processes and to invite participation. Mapping and visualising practices, using techniques like affinity mapping and clustering, have been applied to analyse vast amounts of data produced by Foresight procedures. Lastly, design

facilitation's abilities and resources for including stakeholders, in for example workshops, have also been applied to Foresight (Simeone & D'Ippolito, 2022).

In the case of Service Design in particular, it should be highlighted that both Foresight and Service Design are future-focused in the sense that they revolve around and strive toward something that does not yet exist. However, Service Design tends to maintain a smaller and closer focus on the near-future possibilities for which services might be conceptualised and deployed, whereas Foresight seeks to find and analyse long-term and future-gazing views (Kulsbjerg Løgager et al., 2021).

Ojasalo et al. (2015) state that the main justification for the integration of the two fields is to provide the designer with a comprehensive understanding of the desires and needs of the users (as seen from the Service Design's perspective) as well as valuable indicators of the developments that will occur in the social, cultural, technological, and environmental contexts (as seen from the Foresight's perspective).

2.3 Visioning

2.3.1 A definition of Visioning

In Foresight, a vision is defined as a process which creates a preferred future by projecting values and aspirations into the future and then seeking to describe that future succinctly, in a powerful phrase or sentence, and sometimes as a scenario as well (Hancock & Bezold, 2017). A vision can be seen as a communicative device, challenging and encouraging stakeholders to take on new responsibilities in advancing that envisioned and desired future (Neuvonen & Ache, 2017). Thus, within the context of strategic planning and Foresight , the integration of visions in the process can help to collect and consider together the views of decision-makers, experts, and the general public on the future of the chosen topic, strengthening expert networks and thereby committing all those parties to the vision's implementation (Neuvonen & Ache, 2017). To ensure that, designers and Foresight experts need to engage the different stakeholders involved by facilitating exercises that can stimulate their imagination and evoke vivid mental images of the future.

Thus, communicating that vision and achieving buy-in for it from everyone is a long-term project and requires continuous dialogue and interaction with the public (Neuvonen & Ache, 2017). Effective communication techniques are, in fact, essential for clearly communicating to a large audience the objectives, advantages, and possible effects of the vision. Facilitating transparency, inclusion and involvement can increase stakeholder engagement and motivation to assist the realisation of the vision (Neuvonen & Ache, 2017).

Moreover, this approach offers a pathway towards more transparent, inclusive, and democratic forms of governance that are better equipped to address complex challenges and shape a more positive and inclusive future for all. This is due to the fact that a transparent government of this nature is more able to collaboratively foresee and adjust to the future, tackling shared issues and advancing democracy worldwide (Boden et al., 2010). Lastly, this strategy makes it possible to go beyond borders and more effectively use a variety of levers to shape societal change (Wilhelmer, 2016).

2.3.2 Visioning in the Urban process

Envisioning the future has become an important element of contemporary urban planning and governance, helping to ensure sustainable growth and the welfare of society.

For cities this line of thought is especially about exploring the long-term purpose and role of a place (Government Office for Science, 2016). City visioning is grounded in the local context, taking into account the unique history, culture, and aspirations of the community, in contrast to generic goals, which may lack uniqueness and relevance to the distinctive aspects of a city. For these reasons, it is important to use individual and collective construction of visions, as well as structured explorations of aspirations and priorities, all rooted in the place rather than generic goals (Government Office for Science, 2016). The necessity of varied participation in the process is highlighted by the political aspect of city visioning. Including a diverse variety of stakeholders—including marginalised and underrepresented groups—will allow for a diversity of priorities and perspectives to be included in the visioning process. Because of this inclusivity, stakeholders feel more committed to see the idea through to completion and have a greater sense of ownership over it (Government Office for Science, 2016).

Carlsson Kanyama et al. (2008) argue for the importance of visionary images of the future to strengthen engagement and inspire coordinated actions among citizens. This is because visioning activities provide intelligence for setting the direction of future change. This involves articulating aspirations, constructing visions, identifying value-based goals, etc. (Government Office for Science, 2016).

2.3.3 Actionability of a Vision

Increasingly volatile, uncertain, complex, and ambiguous environments require ongoing and collaborative strategy-making processes (Andersen 2015). Thus, the ability to think about the future in a strategic way is required for designers. Nevertheless, companies that integrate future visioning into their strategic processes often struggle to translate these visions into actionable strategies (Mountford & Christensen, 2022). Because of this, it is critical to tailor the visioning process to the particular requirements and goals of every organisation in order to guarantee that the final visions are feasible and in line with strategic objectives.

While envisioning the future can help identify potential strategies for addressing various scenarios and uncertainties, detailed accounts of how these strategic options are developed and evaluated are limited (Dooghe et al., 2023). In addition, creating strategies based on envisioned futures necessitates a methodical process that takes into account a range of possibilities and uncertainties (Dooghe et al., 2023). Therefore, before making decisions, organisations need to thoroughly consider the viability, feasibility and desirability of each strategic option.

Specifically for the urban realm, while the potential benefits of citizens participation in the Foresight processes have been extensively studied (Neuhoff et al., 2023), there is limited understanding of how the citizens´ visions can be effectively integrated in decision processes, making them more actionable. Indeed, today's decision making processes also lack the voices and perspectives of people who are experiencing the consequences of the decisions that are made: citizens

(Gouache, 2022). Therefore, not only is there a lack of future thinking in decision making processes, but there is also a lack of participatory approaches and more democratic processes in urban processes (Gouache, 2022). This gap therefore limits an in-depth understanding of how to use citizen perspectives to influence and inform strategic decision-making in a range of governmental and organisational contexts.

In the light of this, this thesis wants to explore the relationship between Service Design and Foresight, delving into how they might be integrated to enhance urban planning decision-making processes. In particular, the focus is on clarifying the process of translating abstract visions into concrete and executable actions.

In order to guide our research and design process, we framed our research questions as follows.

Research question:

How can we integrate Service Design and Foresight methods to translate visions into actions in the urban context?

Methodology

3.

This chapter explores the methodologies and approaches chosen to guide the thesis process: Double Diamond and research-through-design. Furthermore, it outlines the limitations identified prior to starting the design process.

In this chapter, the following subchapters will be examined:
3.1 Design Process
3.2 Academic research Process
3.3 Limitations

3.1 Design Process

For our thesis, we decided to adopt the Double Diamond Framework, which is described from The Design Council (2007) as "a visual representation of the design and innovation process. It is a simple way to describe the steps taken in any design and innovation project, irrespective of methods and tools used".

This framework consists of four phases - Discover, Define, Develop and Deliver - which are represented in the form of two diamonds that diverge and converge according to the stage of the design thinking process (Figure 3).

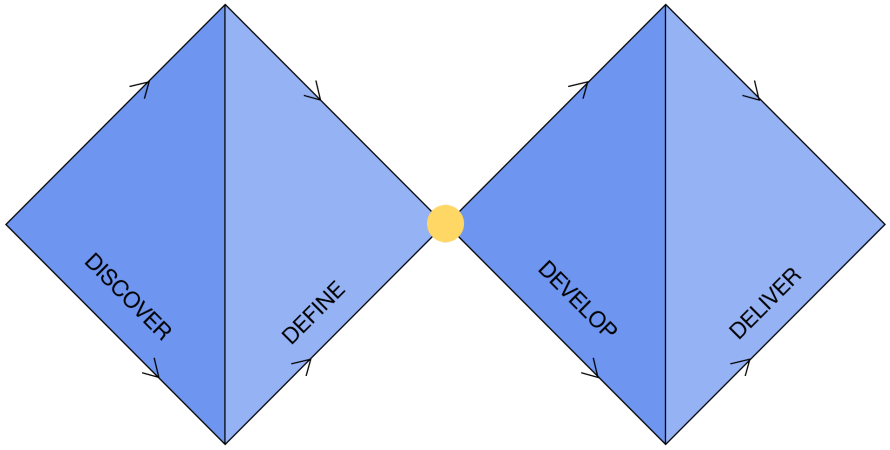


Figure 3. The Double Diamond framework (Design Council, 2007)

In the *Discover* phase, divergent thinking is used to explore the problem identified through research tools and methodologies. Through this initial phase, designers can gain knowledge about the context, user needs, challenges and opportunities that inform subsequent stages of the design process.

Once the general context has been analysed and explored, designers can move to the *Define* phase. In this stage, all the findings are converged to consolidate insights, identify common patterns and user needs to scope down a more focused problem statement. This is done by using convergent ways of thinking.

In the *Develop* phase, the designers' goal is to develop solutions to solve the problem identified in the previous stage. This phase encourages divergent thinking to test possible design ideas. Usually, this phase is characterised from the use of iterative processes like prototyping and co-creations sessions with the users.

Finally, in the *Deliver* phase, designers use convergent thinking to deliver the final solution. This stage involves detailed product-sessions like production scheduling, deployment methods, and comprehensive design development, which guarantee that the suggested solutions are feasible, viable, and appealing to end users.

Although the Double Diamond Framework is known among the design community and largely adopted, it still presents some critical aspects. Macmillan et al. (2002) argue that most of the design processes do not allow iteration among the stages, which represents a limitation also for the Double Diamond framework. Indeed, this model does not include space for iteration, since the four phases have been thought as a linear

way to explore an issue more widely or deeply (divergent thinking) and then taking focused action (convergent thinking) (Design Council, n.d).

Moreover, Lechowicz and Lim (2020) add that this framework is often connected to existing issues, pain points and current behaviours, and therefore, can be limited to the past and present. Therefore, it is necessary to investigate how other tools and methods can incorporate future problems into their processes (Lechowicz & Lim, 2020).

Taking into considerations those limitations, we still decided to apply this framework for our design process, because: 1) it makes the design process visible and enables designers to work efficiently; 2) it provides a framework for assessing the status of projects, especially where the certainty of the final outcome is moderately or very low; 3) it illustrates the key phases and principles of the design process, while leaving space for flexibility (Kochanowska & Gagliardi, 2022, p. 31)

3.2 Academic Research Process

The design process of this thesis serves as a means to explore the academic research question. We adopted a *research-through-design* approach, using design practices to first explore the brief, then conduct research and discover insights on the main topics selected for exploration. Subsequently, design tools helped formulate new takeaways on the subject and generate the proposed solution. However, the design process aims to create an object that addresses user needs; the ultimate goals of research and development are knowledge and understanding, not the artefact itself (Godin & Zahedi, 2014).

Moreover, the decision to use this approach was particularly important given the subject matter addressed in our academic research question. In fact, “research by design into the metabolism of the city is a method for working on “wicked problems”. [...] Solutions are therefore not so much right or wrong, but can be an improvement all the same”' (Dooghe et al., p. 11).

The Double Diamond framework was used to investigate the research question through its distinctive divergent and convergent ways of thinking. Through the research process, we aim to develop two project outcomes, one for the urban renewal department of the City of Copenhagen and one for Service Design academia, which are shown in the timeline (Figure 4). The first is to come up with a service concept as a deliverable for the urban renewal department in Copenhagen after the design process is finalised. The second outcome will be the results of our research about translating visions into actions. The timeline shows the methods used throughout the process as well as critical activities.

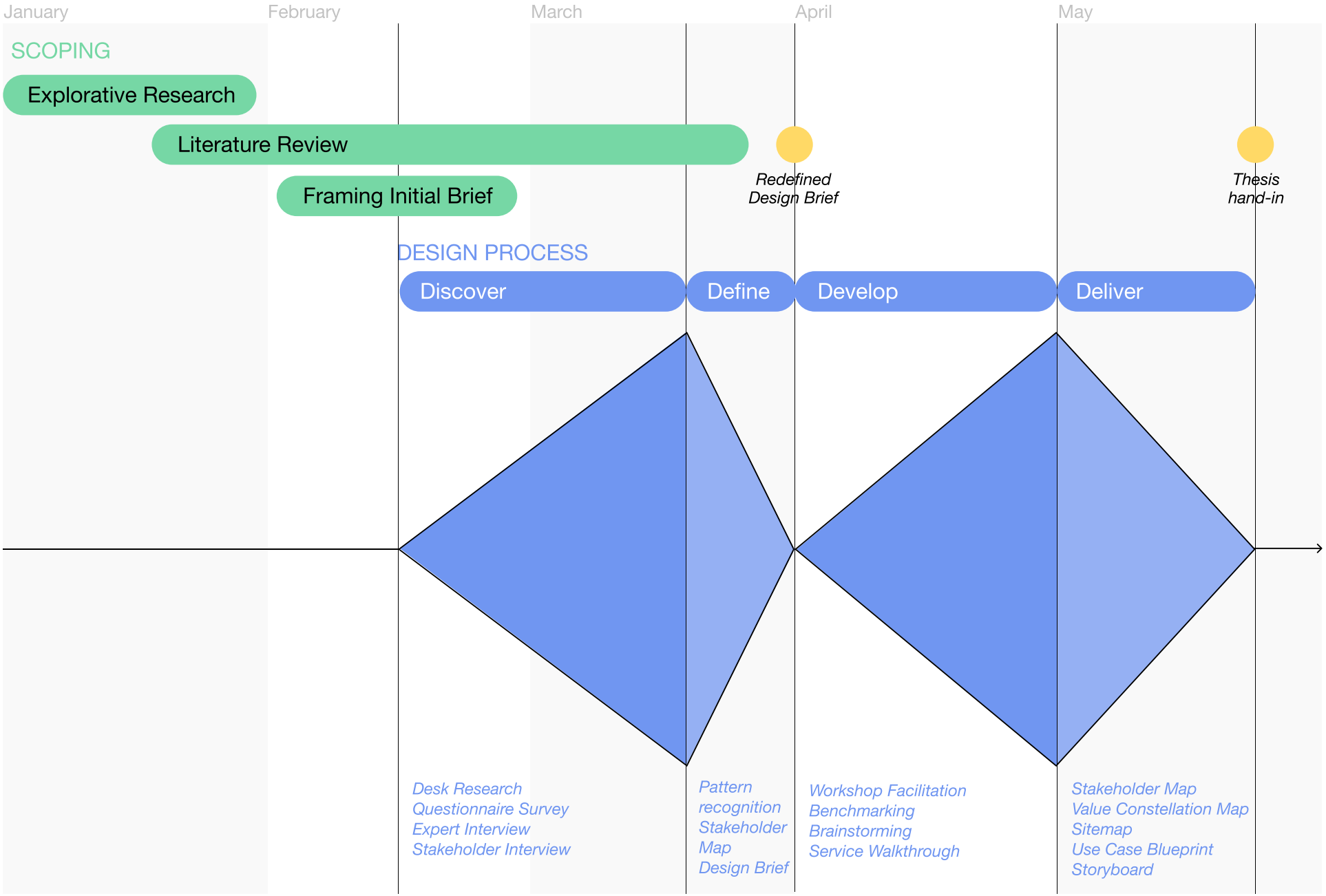


Figure 4. Research process and design process timeline

3.3 Limitations

Before starting our research, we were aware of certain limitations we would have to address. The first limitation is the timeframe of the Master's thesis. The thesis officially began in February and ended in May, giving us only four months to conduct in-depth research on the chosen topic. This limited timeframe may not be sufficient to cover all aspects of a service comprehensively.

The second limitation concerns the limited resources typical of an academic context. As a student project, the lack of resources and funding prevented external parties from investing in our research. Moreover, without a professional collaboration or contract with a Danish company, we lacked a network of expertise to refer to, making it difficult to recruit respondents to engage with.

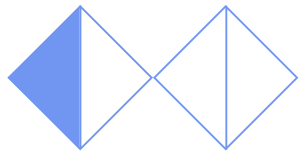
Design Case

4.

This chapter details and reflects on the design process, which is used to explore our academic research question. In the Discover phase, desk research and various user research approaches are used to gain an understanding of the context around citizen involvement, urban planning and Foresight. In the Define phase, these results are utilised to narrow down a particular focus area. During the Develop phase, a new process and framework are created, along with an ideation session to shape our service. In the Deliver phase, a final concept is developed based on the insights gathered throughout the process.

Since the Double Diamond framework includes four phases, this chapter is organised into the corresponding four subchapters:

4.1 Discover



In the Discover phase of the Double Diamond, our investigation into the problem statement involves a desk research on city planning, city foresight, and tools for translating visions into actions. Following this, we present a questionnaire survey conducted to gather additional data from citizens regarding their preferences for participating in urban planning. Then, we outline the structure and objectives of interviews with Foresight and Strategy experts. Finally, we detail an urban process mapping interview conducted with a Copenhagen Municipality urban planner to gain insights into the current urban planning process.

In this subchapter, the following sections will be discussed:
4.1.1 Desk research
4.1.2 Questionnaire Survey
4.1.3 Expert interviews
4.1.4 Urban process mapping interview

4.1.1 Desk research

Any design process begins with the first problem deconstruction and understanding, thus we have begun by examining the design brief and determining the best course of action for addressing and investigating it. Firstly, it was necessary to dive into the topic of urban planning, its definitions and its stages. Secondly, it was needed to conduct research about what a general city-foresight process might look like and which tools are nowadays used to translate scenarios and visions into actions.

4.1.1.1 A definition of Urban planning

Urban planning is the process of directing how land, urban environment, natural environment, ecosystems, and human services are used and developed. The goal is to ensure that natural resources are used effectively, that infrastructure and facilities are intelligently managed, that operations and services are efficient, that economic development is optimal, and that people have a high quality of life and well-being (Bibri, 2018).

Various levels of urban planning can be identified, ranging from broad to more in-depth planning: 1) City plan, which covers the traffic plan and the other development for the city; 2) Local master plan, which includes services, residential and workplace blocks, traffic and recreation; 3) Local detailed plan, which is more specific of the area, including location, height and purposes of buildings, housing and business premises; street and park plan, which deals with city arrangements, cycling and pedestrians routes, traffic signs and green areas (City of Helsinki, n.d.).

As suggested by Fernández-Güell and Redondo (2012), the value created from an urban planning process is displayed in a sequential and hierarchical way, where development proceeds from territorial planning to urban planning, systems development, site development and building construction (Figure 5). Each of the five steps presented by the authors has its own geographical scope, objectives, operational methods, norms and administrative procedures. The value chain is designed to meet the real estate needs of institutions, businesses, and residents. It is started and directed by a set of public policies that are developed at different administrative levels. Consequently, a constant feedback process monitors the value chain (Fernández-Güell & Redondo, 2012) to deliver a beneficial implementation for the urban realm.

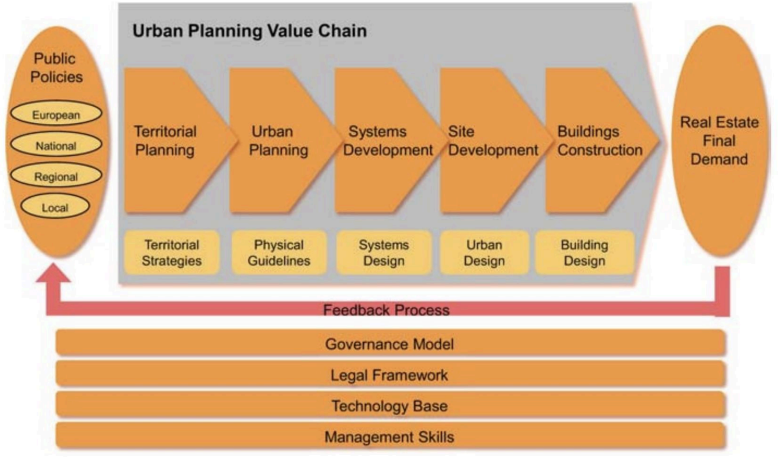


Figure 5. Conceptual Framework for urban planning (Fernández-Güell & Redondo, 2012)

4.1.1.2 Urban planning stages

Pre-planning, planning, and post-planning are the three primary phases of an urban planning process. While conducting this research, it was discovered that there are minor changes between the three primary stages, which can vary in public involvement, but they all exhibit the same goals. Figure 6 depicts a simplified version of the common processes in the urban planning process.

Figure 6. Planning stages (University of Wisconsin-Madison. n.d)

Pre-Planning

Pre-planning involves assessing the community and creating a planning framework. This phase is streamlined when local leaders and the public agree on the planning process and understand its goals, values, and advantages (UWSP, n.d.). During project preparation, the goals of the urban planning process and each stakeholder's duties are established. The project team drafts a guiding document that formalises stakeholder roles and defines collaboration parameters with different partners. This document compiles agreements and discussions from earlier activities and suggests if additional resources are needed (UN-habitat, n.d.).

Planning

The planning phase includes five main steps: gathering and analysing data, identifying issues, creating goals and objectives, choosing instruments and policies, and formally adopting the plan. Communities may need a flexible process to respond to new information or unexpected reactions, possibly reviewing or reordering these steps. Some communities incorporate a visioning step, while others use it for early public participation (Land Use Training & Resources, n.d.). The aim is to create a shared vision, plans, and initiatives for future city development. This phase includes three layers of spatial plans: the strategic development plan, the land management plan, and the neighbourhood plan. These plans, addressing issues found during the analysis phase and offering comprehensive solutions, result from discussions among the technical team, local government, key stakeholders, and the community (UN-habitat, n.d.).

Post-Planning

The post-planning phase involves implementing, overseeing, and assessing the plan. Effective planning results from ongoing reflection on the plan's outcomes and community satisfaction rather than a static document. Yearly evaluations allow the community to assess current conditions, utilise available resources, and resolve issues (University of Wisconsin-Madison. n.d). After adopting the urban plan as a legally binding document, the implementation phase sets up the means to carry out strategic projects and actions that will guide future urban growth (Baltic Urban Lab n.d.).

During the desk research, an interesting viewpoint was discovered: the Baltic Urban Lab's (4P) method (Baltic Urban Lab, n.d). In urban planning, the Public-commercial-People Partnership (4P) is a novel method that brings together a range of stakeholders, including members of the public sector, commercial companies, residents, non-governmental organisations, and civil society activists, recognising the significance of stakeholders outside the traditional public planning bodies.

4P techniques improve economic and time efficiencies, guaranteeing comprehensive analysis of sectoral issues while leveraging shared risks and resources to boost efficiency. Promoting transparency and public engagement, 4P methods involve developers early on, integrating citizen feedback alongside planning officials and landowners, while addressing issues regarding legitimacy and transparency in public-private partnerships (Baltic Urban Lab, n.d).

By employing 4P techniques, local governments, developers, and stakeholders can collaborate more effectively, supporting integrated planning and development strategies that encompass diverse urban development visions. Tailoring partnership models and principles to the unique circumstances and stakeholders of each city is facilitated through the incorporation of 4P techniques into city planning procedures (Baltic Urban Lab, n.d).

4.1.1.3 City Foresight

After analysing urban processes in general, the focus shifted to how Foresight is in some cases already integrated into the urban process. The academic method of thinking about how cities can change in the future is known as "city foresight," and it employs a variety of approaches to give decision-makers information about possible changes (Government Office for Science, 2016).

There are five different kinds of thinking involved in this process, as suggested by the Government Office for Science (2016):

Visioning

This process is essential for determining the course of upcoming modifications. It entails defining values-based objectives, creating visions, and expressing ambitions. Its main objective is to direct the process of Foresight by offering precise guidelines for long-term growth.

Analysing

This way of thinking incorporates information about existing assets, limits, and opportunities. It involves taking into account a number of factors, including financial resources, infrastructure capacity, population projections, and physical restrictions. Analysing with the goal of identifying future change indicators involves knowing what will drive supply and demand for urban services.

Designing

Creating alternate paths for the future and using creative imagination are aspects of designing activities. By taking many circumstances into consideration, this method creates new options and possibilities. The goal of designing is to create a collection of workable possibilities, or "designs," that take into consideration the limitations and change-drivers noted in the analysis and are in line with the goals established during the visioning step.

Testing

This activity evaluates the resilience of the designed scenarios. It entails determining which solutions are resilient to a variety of possible future events. Testing is done to identify potential risks and make sure that the suggested designs are robust and flexible enough to accommodate a range of future scenarios.

Assembling

The goal of assembling activities is to incorporate all of the obtained data into cohesive and believable action plans. This entails determining prospective change-inducing factors, including delivery methods, technical advancements, funding sources, institutional changes, skill investments, and regulatory advancements. The goal is to use the insights gained from visioning, analysing, developing, and testing to develop practical strategies.

4.1.1.4 Foresight tools for translating visions into actions

Hereafter, the desk research became more specific about the research question and continued looking for existing tools that Foresight experts apply in their processes to translate visions into real strategies. This approach allowed us to build a solid foundation of knowledge and understanding before diving into the next phases of the design process.

The research resulted in the identification of six major tools, the most well-known and used by future specialists, that are presented as follows.

Wind Tunnelling

The Wind Tunnelling (Fergnani, 2021) tool involves using a table to stress test an organisation's current tactics against a range of future situations to evaluate the resilience of various strategies—like marketing or research and development—against each vision. Strategies are deemed feasible if they can endure the "strong conditions" of scenarios (Fergnani, 2021); if not, they would require

revision or removal. The method's advantage is that it helps management concentrate on methods that are likely to succeed in the future by recognising those that are. It provides versatility because it may be used to test not just an organisation's plans but also those of competitors, novel business concepts, and essential competencies. Its reliance on subjective evaluation standards, however, is a serious drawback that can produce false outcomes, particularly when comparing several different approaches (Fergnani, 2021).

Scenario immersion

Scenario immersion (Fergnani, 2021) is a method involving structured brainstorming about how various scenarios may impact an organisation. Without taking into account the likelihood of each threat or opportunity, participants indicate them for each scenario. These ideas are recorded using sticky notes, which are subsequently grouped to control the amount of data. Ultimately, a strategic plan is formed by the participants through the proposal of strategic solutions derived from these insights.

The method's strength is its capacity to produce detailed feedback and a diverse range of suggestions for making decisions. The fact that the suggested plans were developed by organisational members who might not have given careful consideration to the organisation's strategic history presents a challenge, too, as they may not be implementable. This departure from earlier strategies and limitations may reduce the method's efficacy.

Wright & Cairns' Wind Tunnelling Variation

When companies have to choose between conflicting plans, the Wright & Cairns' Wind Tunnelling Variation method (Fergnani, 2021) is usually employed. There are three parts to it: firstly, strategies are ranked against scenarios according to objectives; secondly, all strategy-scenario combinations are ranked; and thirdly, the optimal approach is identified by comparing scores between objectives. Although it offers objective insights, it could ignore qualitative factors and the relative significance of goals. Fergnani (2021) suggests that assigning numerical weights to scores may oversimplify the intricate nature of strategic decision-making.

Three Horizons

The Three Horizons Framework (ILO's International Training Centre, n.d.) is a method for making sense of uncertain changes within current assumptions. It entails clarifying assumptions, investigating new developments, and redefining ideas, goals, and behaviours. Three mindsets — managing, visionary, and entrepreneurial — that reflect overlapping waves of change are identified by the framework. It functions as a flexible futures tool with a range of uses, such as giving scenario narratives organisation.

One of its strengths is its ability to point up strategic possibilities and weak points in the prevailing assumptions. But since it is a qualitative tool, some people can misunderstand it and think it is just a chronology. A skilled facilitator, participant time, and data scanning expenses are needed for implementation (ILO's International Training Centre, n.d.).

Backcasting

According to Sisto et al. (2022), backcasting is different from forecasting the future since it concentrates on finding solutions for upcoming and present problems that need to be solved to reach desirable future states. This strategy works especially well in participatory strategic planning, when external standards, like social or environmental desirability guide policy actions. Bibri (2018) emphasises the value of backcasting when dealing with difficult issues that call for significant change and in which externalities and prevailing patterns are major contributing factors. This approach is also beneficial when there is enough room and time to consider other development paths.

The three spheres of transformation

The three spheres of transformation method (Denton et al., 2015) defines transformational change in three spheres: practical, political, and personal. The practical domain, which includes economic incentives and technology advancements, is concerned with observable and quantifiable results that are frequently the aim of sustainability initiatives (Denton et al., 2015). Larger systems and structures, however, impose restrictions on changes inside this domain. Value conflicts may be resolved in the political domain through deliberate changes by politics, social movements, and adjustments to norms and power dynamics. The personal domain is about beliefs, values, and worldviews that are held by individuals and groups. These beliefs have an impact on systems, behaviours, and reactions, making them important levers for future changes (Denton et al., 2015).

4.1.1.5 Preliminary reflections

It is important to note that the desk research has its limitations in terms of comprehending city-foresight and translating visions into actions. It could miss new trends, have outdated information, and have issues capturing stakeholders interactions and local circumstances. Furthermore, it frequently lacks the cooperative procedures required for comprehensive urban planning. As a result, while it serves as a starting point for the research, it should be supplemented by the hearing of experts, who apply those methods in their working life. For those reasons, we recruited four experts to gain more perspectives on those topics (see section 4.1.3).

Also for the case of urban planning, desk research has limits in understanding urban planning processes as it may not capture the nuanced and context-specific information that can only be obtained through direct interaction with key stakeholders. Indeed, during the desk research, the information found available online on urban planning in Copenhagen was restricted and insufficient to provide the comprehensive understanding required to work in the chosen project context. On the other hand, we were aware that in-person interviews allow a deeper exploration of the decision-making dynamics, local challenges and cultural factors that shape urban planning in Copenhagen. For that reason, we began looking for potential respondents working at Copenhagen Municipality offices and Danish architecture studios to gain a deeper understanding of the motivations and priorities that influence the urban planning process in the Danish capital.

In the meanwhile, while conducting the desk research, we started also doing preliminary research on case studies to understand what projects already exist that deal with citizen engagement and the integration of urban Foresight, both in the city of Copenhagen and globally. However, we also recognised that this preliminary research was too early in the process for us to use because we were still unsure about the problem we wanted to tackle and the outcome we wanted to achieve with our service proposal. Furthermore, without a comprehensive knowledge of our service provision, we risked neglecting potential creative solutions that did not exist in the present context.

4.1.2 Questionnaire Survey

To initiate our design process, we used a questionnaire survey as a data collection method. The reason behind this choice is that the tool has the potential to collect large amounts of data efficiently, economically and within relatively short time frames (Regmi et al., 2016).

The primary goals of the questionnaire are to identify the demographics of the respondents, including their age and area of residence, and to assess their interest in participating in the city planning process. Additionally, the questionnaire aims to investigate the level of time and commitment respondents are willing to invest in these types of activity. It seeks to understand the motivations behind individuals' desire to engage in city planning, the specific stages of the process they are most interested in, and the preferred methods of involvement.

The survey was shared on different facebook groups related to the city of Copenhagen and on our private Instagram stories. We also tried to directly reach out to Service Systems Design Master alumni, colleagues, friends and acquaintances living in Copenhagen. All findings and insights will be further introduced and examined in the Define phase (see section 4.2.1).

Reflecting on our approach, the low-budget and time-efficient aspects of the tool facilitated widespread participation. It also helped us to visualise the data through visual graphs. However, we encountered a bias in participant recruitment, since we primarily involved individuals within our existing networks, which we attempted to mitigate by utilising Facebook groups. More specifically, a significant challenge emerged in reaching older adults, as we lacked personal connections within this demographic group, and social media platforms, particularly Facebook groups, often presented access barriers. Additionally, the language barrier, since all materials were in English, might have further limited older individuals' participation.

The questionnaire can be seen in Appendix A.

4.1.3 Expert interviews

To understand how professionals work with Foresight and Strategy, as anticipated previously (see section 4.1.1.5), we planned to conduct several expert interviews with figures working in these fields. Indeed, expert interviews are a widely-used qualitative interview method often aiming at gaining information about or exploring a specific field of action (Döringer, 2021). This type of interview is seen as an investigating and informative form of interview in order to learn about knowledge where the respondent is regarded as a source of information for facts (Monke, 2007).

4.1.3.1 Foresight and Strategy interview

The objectives for the first round of interviews are to comprehend how companies develop and utilise scenarios and visions, focusing on their processes and methodologies. Additionally, the study aims to determine if they have specific methods or tools for transforming visions into strategies and actions. Furthermore, the research seeks to explore the participatory side of these processes.

Considering these objectives, interviewees were chosen by selecting agencies in Copenhagen that work with Foresight and Strategy and taking into account the level of difficulty in contacting them. We chose the participants of the interview based on convenience sampling due to time and budget constraints. This means choosing people who are easy to get in touch with and who respond promptly (Bjørner, 2015). Therefore, the choice fell on the following three agencies: Manyone, Danish Design Centre (DDC) and ReD Associates.

At Manyone, we decided to interview Julia Reindl, Senior Foresight Strategist and Researcher. Her speciality is in designing public involvement and creating future scenarios, utilising future methodologies to nurture different perspectives across a range of audiences (Noppen, 2023).

In the case of the DDC, we organised an interview with Oskar Stokholm Østergaard, Design & Future Lead. He is interested in exploring the intersections between design, futures, systems, and storytelling and how we can stretch our collective imagination. (Oskar Stokholm Østergaard, n.d.)

As for ReD Associates, we interviewed Maria Cury, a partner in the Copenhagen office. Maria Cury drives ReD's emerging technologies practice: she has overseen foundational studies on AR/VR, haptics, autonomous vehicles, the smart home, and computing. She also specialises in global and cross-cultural projects and she is passionate about advancing innovation in applied ethnography. (Maria Cury, n.d.)

The interviews with Julie Reindl and Oskar Stokholm Østergaard followed a consistent structure (see Appendix B.1). They began with an introduction to our initial design brief and an ice-breaker question where the respondents introduced themselves and their roles in their companies. The interviews then explored their Foresight process and methodology, criteria for scenario and vision development, translation of visions and scenarios into strategies, and the inclusion of participation in their processes. The final part of the interview sought their advice or suggestions for our design process.

Similarly, the interview with Maria Cury was structured with an introduction and an ice-breaker question. However, it was more focused on Strategy (see Appendix B.2). The questions addressed her strategy development process and methodology, her approach to long-term visions, integration of these visions into the strategy development process, measurement and evaluation of the strategy, and collaboration and communication with clients when developing a long-term strategy.

The experts effectively connected the knowledge they shared with their own experiences and projects, making the information more relatable and easier to understand. Additionally, they provided examples closely related to our topic of city and citizen engagement, which significantly

enhanced the value of the insights gained. On the other hand, despite their expertise, the discussions were heavily influenced by the experts' individual perspectives and orientations.

All main insights from the expert interviews will be presented and analysed further on the report (see section 4.2.1).

4.1.3.2 The Place Bureau toolkit interview

Once the process and methods interviews were completed, we had the opportunity to get in touch with Place Bureau, a strategic studio that re-imagines new frontiers for places around the world and that has just released a beta edition of a toolkit for civic imagination (The Place Bureau, n.d.).

Therefore, we organised an interview with Rosanna Vitiello (see Appendix B3) — cultural strategist, creative director and bureau chief of The Place Bureau — to gain an overview and understanding of The Place Bureau toolkit and to learn about the level of citizen participation, including which are the stakeholders involved and their roles. In addition to this, we wanted to identify effective tools for translating visions into strategies, discussing their accessibility and the required level of expertise. Finally, we aimed to gather advice on how to select appropriate tools to translate visions into actions and ensure that the strategies developed are adaptable.

Engaging with an expert who applies Foresight tools in the urban realm provided valuable insights. In fact, reflecting on the interview, it was particularly useful to talk about Foresight tools on a more practical level, as they were already adapted to the urban environment by Rosanna Vitiello in her projects.

All main insights will be presented and analysed further on the report (see section 4.2.1.).

4.1.4 Urban Process Mapping Interview

While exploring the fields of Foresight and Strategy, it was necessary to focus on the urban level, in particular that related to the city of Copenhagen. We therefore decided to organise an interview to map a typical urban process in the Copenhagen context.

The objective of the urban process mapping interview is to map out the step-by-step process of city development at the local planning level in Copenhagen. It seeks to identify the stakeholders involved and to understand the extent of citizen involvement in the planning process. It also aims to determine whether city planners consider long-term aspects in their projects and, if so, how they incorporate these aspects in their process.

In order to achieve these goals, it was necessary to recruit and interview someone who works in the urban planning department of Copenhagen's Municipality. Given the difficulty in contacting the ones working in the Municipality and getting their availability, we were only able to interview one urban planner willing to participate: Andreas Klarlund, an urban planner specialised in urban renewal who works in the Mobilitet, Klimatilpasning og Byvedligehold department (Teknik- og Miljøforvaltningen) of the City of Copenhagen. More specifically, Andreas Klarlund's work is based on a five-year initiative launched by

the City of Copenhagen in its disadvantaged urban areas. This program addresses both the physical environment and social and cultural projects within neighbourhoods.

4.1.4.1 Trial interview

To make sure we got the most out of the meeting with Andreas Klarlund, we decided to test the format first by organising another interview. We scheduled an interview with Mihai Baicu, an urban coordinator for The Copenhagen Metro and Greater Copenhagen Light Rail. It has been decided to recruit him due to our previous interactions with him on other university projects.

The specific objective in this session was to test the use and understanding of the interview format and materials that we were planning to use with Andreas Klarlund.

The interview was organised in two parts. The first part was dedicated to the actual mapping of the urban planning process, where we asked the interviewee to guide us through the main steps using a printed template (Figure 7). The mapping was further detailed by identifying the stakeholders involved in each step and examining the extent and modality of citizen involvement. The second part was structured more as an open conversation about the long-term considerations of urban planning, exploring the criteria that urban planners apply and the kind of impact they aspire to achieve. The interview script can be read in the Appendix B.4.

When reflecting on this trial interview with the proposed template, several key aspects emerged. Firstly, engaging in discussions helped us refine our interview template for the official interview, validating the stages we had identified previously with the desk research (see section 4.1.1.2.).

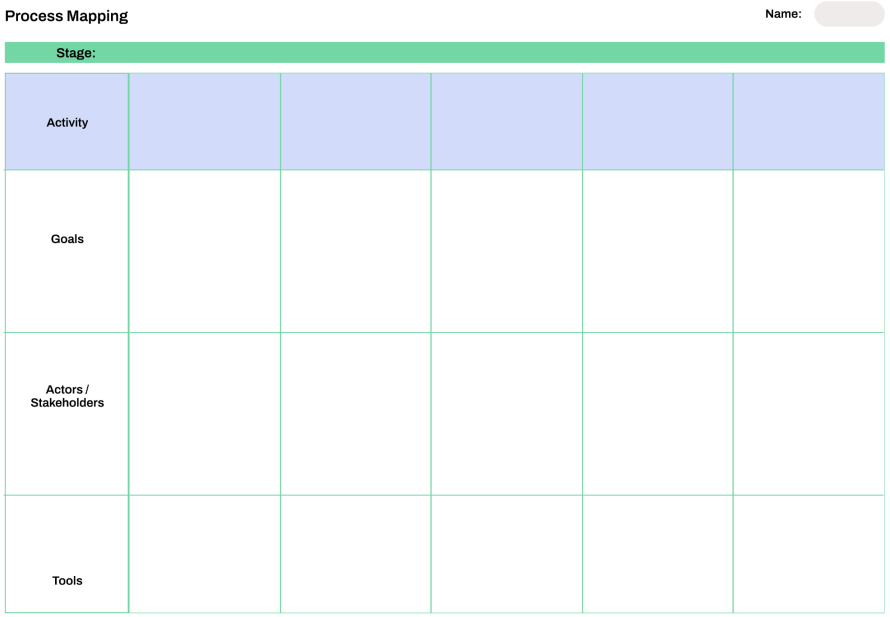


Figure 7. Trial Interview template

Secondly, by understanding the main stakeholders involved in the process, we were able to adapt our template accordingly, allowing respondents to choose from a list and facilitate the conversation. Thirdly, the discussion facilitated the definition of our roles for conducting the subsequent semi-structured interviews, enhancing our efficiency.

Despite Mihai's specialisation not aligning precisely with urban planning, his experience with The Copenhagen Metro and past studies provided valuable insights into typical urban planning processes.

4.1.4.2 Official interview

For the official interview with Andreas Klarlund, we therefore decided to redesign the printed template used in the previous interview. The rows of activities and objectives remained unchanged, while the row of stakeholders was modified by already showing the potential stakeholders usually involved so that we had to choose and cross them for each step. This helped to maintain a good level of consistency during the exercise, but we still made sure that we did not omit any stakeholders.

We decided to drop the row on timing because during the first interview we confirmed that the process is too variable and defining a timing for each step is too challenging. Instead, since the interview was to be conducted with an urban planner from the Municipality, we decided to go more in depth and analyse the types of tools and frameworks he and his colleagues use in each step, adding a new row on the printed template (Figure 8).

The interview took place in a meeting room of the Municipality office in Island Brygge, where Andreas Klarlund works. He was very helpful, explaining his process in detail and making the conversation very smooth, showing a high interest in our project and our future steps.

Reflecting on our process, the division of roles proved successful, allowing both of us to actively engage in discussions with distinct focuses, one on mapping and the other providing a general overview. The new template facilitated a more comprehensive understanding of the process and stakeholders involved, allowing us to understand which tools and methods are used by urban planners in their process.

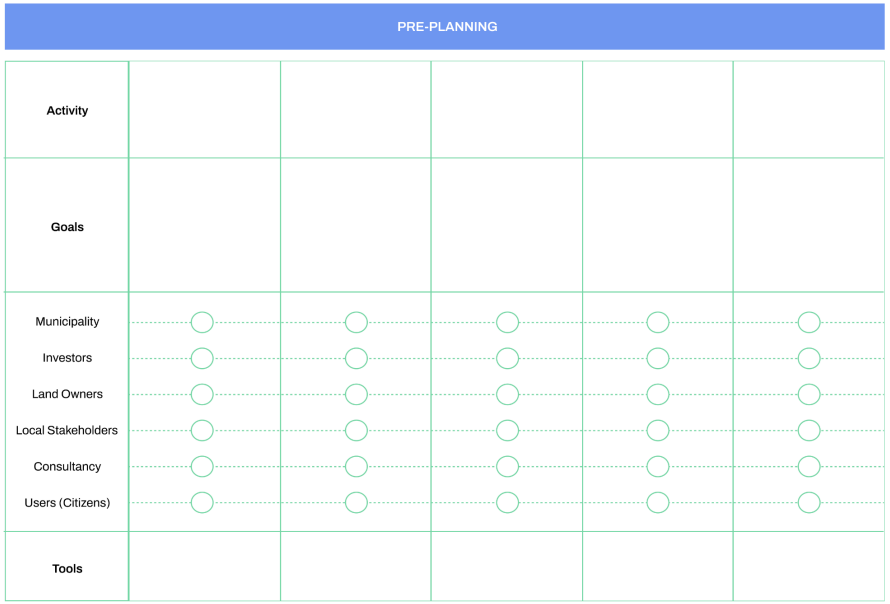


Figure 8. Official Interview template

The new template facilitated a more comprehensive understanding of the process and stakeholders involved, allowing us to understand which tools and methods are used by urban planners in their process.

All main insights will be presented and analysed further on the report (see section 4.2.1).

4.2 Define

The objectives of the Define phase were to formulate a relevant problem and identify a target group for the new service. We employed various techniques to progressively narrow our focus area.

In this chapter, the information gathered from our research is synthesised, using it to identify potential opportunity spaces in the urban process and define our target group. This phase also includes creating a Stakeholder Map to represent the current status of the urban renewal process. Finally, we present our design brief, which has been redefined to guide us through the procedures of the upcoming Develop phase.

In this subchapter, the following sections will be discussed:

4.2.1 Data Synthesis

In the next sections, we are presenting the main insights for each of the activities already explained in the previous chapter.

4.2.1.1 Questionnaire Survey

Regarding the questionnaire survey shared to the citizens, 52 answers have been collected in total. In general, we reached mostly younger individuals (50% of the respondents were 21-29 years old) and expats (more than 60% of the respondents have been living in Copenhagen for less than 5 years).

The survey does not quite capture the full picture accurately because of the limited reach we achieved (see section 4.1.2). Nevertheless, it did provide valuable insights. All the answers can be seen in Appendix A.1.

The findings we collected were related to the following main topics.

Motivation

In relation to motivation, we collected data about which factors can influence citizens' participation in the urban development process of Copenhagen. Even if the percentage of people who have already participated in a city planning initiative is quite low, covering only 13,5% of the participants, the interest in actively participating in Copenhagen's city planning process is medium with the majority of people expressing an average interest of 30,8%.

We discovered that time and information accessibility are the major factors that affect citizens' willingness to actively participate. Citizens expressed their preference in participating in city planning initiatives from 1 to 2 hours per month or even less. Only 19,2% of people would dedicate more than 3 hours per month to it.

In addition to this, there are other two aspects that really influence the motivation to participate, which are the feeling of having a meaningful involvement and impact on outcomes, and the trust in the effectiveness of the process.

Interest in the phases of the planning process

Regarding which phases of a typical urban planning process interest citizens the most, this section revealed that citizens are mostly interested in participating in the visioning phase of the process, sharing ideas for the future of their city.

There is also interest in participating in the analysis step and providing input to understand current issues and people's needs. Collaboration in crafting a development strategy also shows a medium interest. However, there is less enthusiasm from citizens for the implementation and evaluation phases.

Engagement methods

In this section, we discovered which methods are most appealing for citizens to participate in the urban development process. Citizens prefer to be involved with workshops (63,5%) and online platforms (48,1%), showing less interest in public meetings or surveys. Someone also suggested using idea pitches from the community and showings during the development/implementation process to be able to weigh in with improvements and opinions.

This first clusterization led to identifying main patterns among all the answers collected. Doing this, the seven insights came up (Figure 9).

Figure 9. Main insights collected from the citizens' questionnaire online

4.2.1.2 Expert Interviews

In this section the analysis of the data gathered during the experts interviews (see section 4.1.3) is presented.

The same process has been applied to all the experts' interviews to identify the main insights, which is presented as follows: 1) after reading the interviews' transcripts, we created a board for each interview in which we listed the main findings found; 2) for the most relevant findings, we wrote down an insight; 3) after this, we grouped the insights into clusters, that led us to identify the common insights through all the interviews.

The common insights are:

Make it tangible

When involving Foresight experts, it is important to anchor the future to the daily life of people to make it more tangible and relatable. This helps citizens to project them into the future.

Facilitate the visioning

Encouraging people to imagine wild and unconventional futures without imposing present constructs is essential for effective futures thinking. To achieve this, people have to be guided in understanding their assumptions about the future. Thus, experts have to be the one facilitating this generative process.

Consider the context

To deliver a long term strategy, it is important to frame and understand the context and the system around it, since there is no future thinking without system thinking.

Be mindful of path dependencies and fear of change

Path dependencies (resistance to change) can be an obstacle when implementing a change. In this context, action planning can be seen as a way to face people's fear of change and laziness when thinking about the future.

Adapt and implement

Ongoing implementation is needed to be always adaptable to changing futures, thus the process has to be a cycle. A possible way to face this is to identify main variables for the future to monitor. In fact, adaptability to different futures is ensured by covering important drivers of change.

In addition to the common insights, other relevant and specific insights for each interview have been identified. Those can be read in the Appendix C and are presented in the Main Insights section (see section 4.2.1.4).

4.2.1.3 Urban Process Mapping Interview

The urban process mapping interview was an insightful moment because it allowed us to better understand and map out the typical urban renewal process applied by the Copenhagen Municipality, identifying the main steps and the goals for each of it, the stakeholders involved and the tools used.

Figure 10, Figure 11 and Figure 12 illustrate the results of the mapping activity.

PRE-PLANNING					
Activity	**Identify the area**	**Dialogue with stakeholders**	**Design the program**	**Making sense**	**Presentation to politicians**
Goals	• data work and categorise which neighbourhoods are demanding renewal • to choose they follow criterias agreed with politicians	• get knowledge about the neighbourhood • involve local stakeholders and then citizens • be open to changes and input about the area	• create a list of possible projects within a 5 years range	• getting more specific about the Program • prioritise the money • dialogue with stakeholders is still going	• get the approval from Politicians
Municipality	✕	✕	✕	✕	✕
Investors	○	○	○	○	○
Land Owners	○	○	○	○	○
Local Stakeholders	○	✕	○	○	○
Consultancy	○	○	○	○	○
Users (Citizens)	○	✕	✕ Less than 10%	✕	○
Tools		• Informal interviews	• Gathering w/ citizens and stakeholders: • intro, idea presentations, budget presentation... • workshop rotation to give inputs		

Figure 10. Copenhagen urban renewal process in the Pre-planning phase

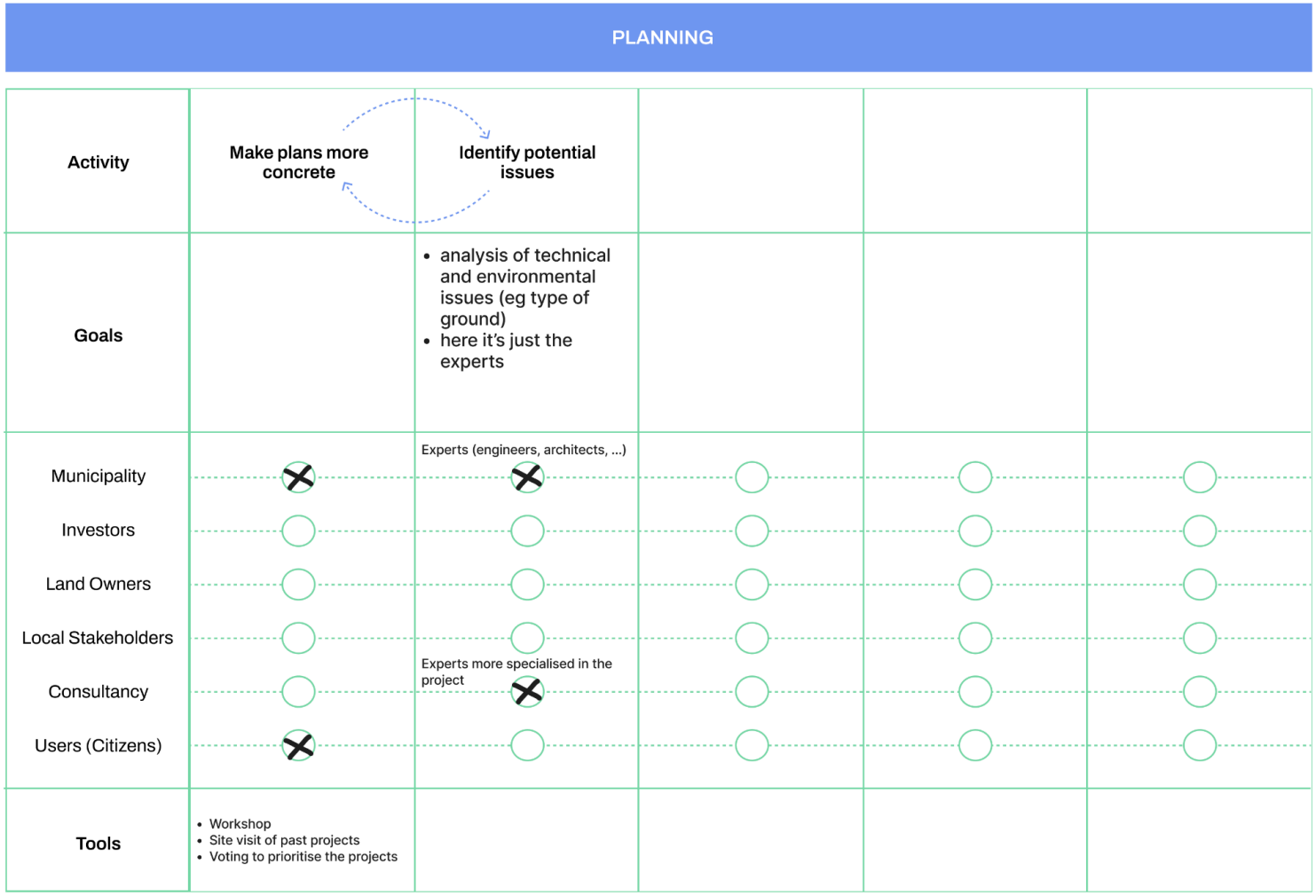


Figure 11. Copenhagen urban renewal process in the Planning phase

POST-PLANNING					
Activity	**Implementation**	**Evaluation**			
Goals		• analysis of technical and environmental issues (eg type of ground) • here it's just the experts			
Municipality	✕	○	○	○	○
Investors	○	○	○	○	○
Land Owners	○	○	○	○	○
Local Stakeholders	○	○	○	○	○
Consultancy	○	○	○	○	○
Users (Citizens)	✕	✕	○	○	○
Tools		• questionnaire • open discussion • report			

Figure 12. Copenhagen urban renewal process in the Post-planning phase

This interview marked a crucial stage in our design process. Understanding the steps of the urban renewal process employed by the Copenhagen Municipality guided our decision to centre our service on implementing this specific process. As a result, the next phases of the design process were dedicated to implementing the urban renewal process of the Copenhagen Municipality.

As in the case of the experts interviews, we collected the main findings from the transcript and grouped them to identify the following insights (Figure 13):

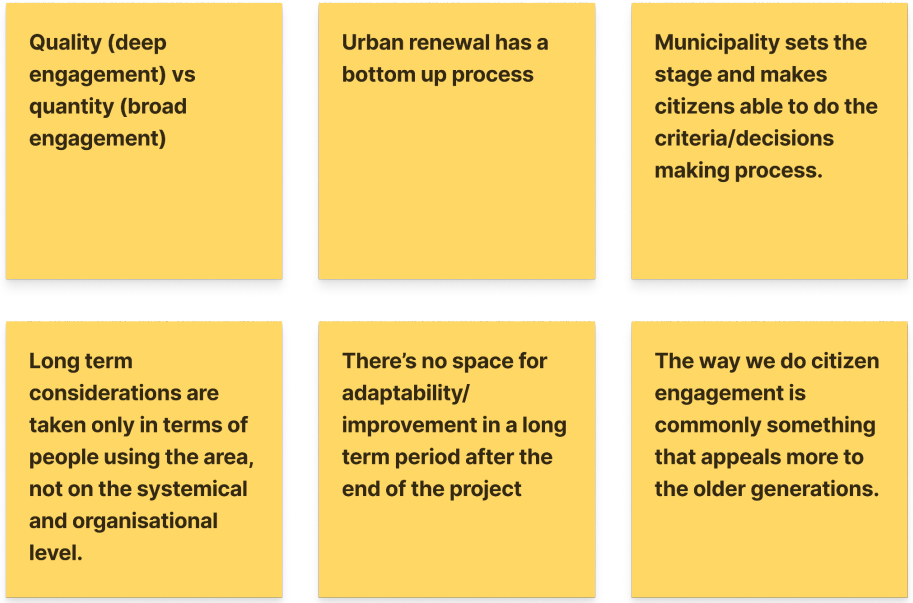


Figure 13. Main Insights from the Urban Process Mapping Interview

During the analysis of insights from the urban interview, resemblances emerged with insights gathered from experts interviews (see section 4.1.3).

In particular, the recurrent themes are the following.

Facilitate the visioning

According to Andreas Klarlund, urban planners have to set the stage and involve citizens in the decision making process. Thus, experts are needed to guide this process and play a crucial role in guiding citizens to consider broader objectives and context, since citizens do not have the expertise to do it by themselves.

Consider the context

For urban renewal projects, long term considerations are taken only in terms of people using the area after the implementation, not on the systemic and organisational level.

Adapt and implement

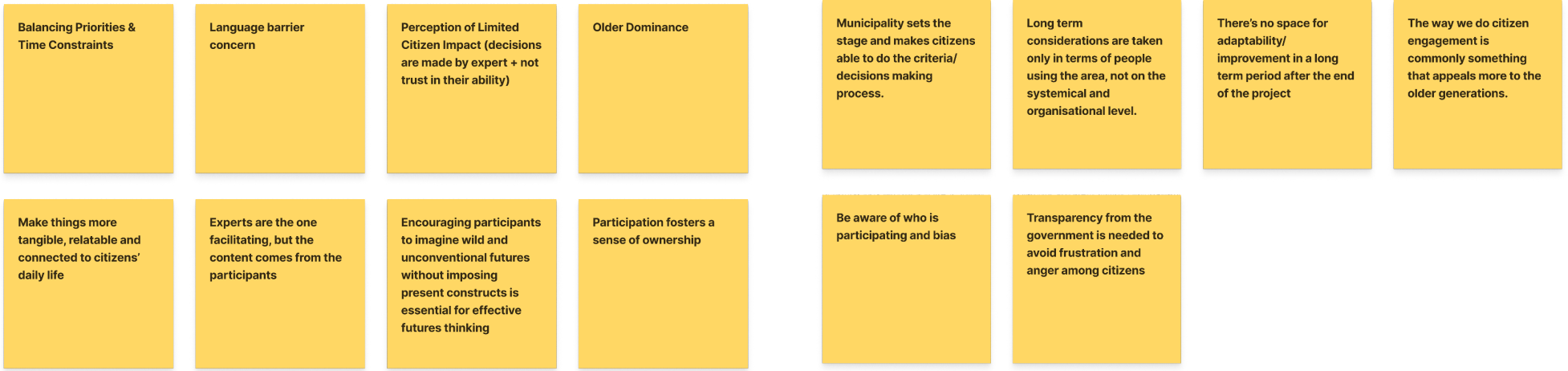
In the context of the urban planning process of the Municipality, there is room for future improvements when considering long-term adaptability of an urban project after the end of its implementation. This interview marked a crucial stage in our design process. Understanding the steps of the urban renewal process employed by the Copenhagen Municipality guided our decision to centre our service on implementing this specific process. As a result, the next phases of the design process were dedicated to implementing the urban renewal process of the Copenhagen Municipality.

4.2.1.4 Main insights

The formation of five common insights (see section 4.2.1.2) aided in directing our attention towards potential directions for the new service concept. However, these categorizations overlooked crucial insights that were not encompassed within them. As previously mentioned, the formation of the five categories was determined by grouping similar insights together through different interviews, thereby excluding other specific and valuable insights.

Consequently, we revisited the previously established boards to gather all the significant insights, including also the ones obtained from the citizens' questionnaire. This process led us to pinpoint a total of 26 main insights (Figure 14).

Figure 14. The 26 main insights identified during the interviews' analysis



4.2.2 Stakeholder Map

To better understand the current stakeholders involved in the urban renewal process of the Copenhagen Municipality, we decided to map them with a stakeholder map (Figure 15). Generally, this tool identifies the role of each stakeholder, as well as the dynamics of the relationships between them (Giordano et al., 2018). Through the information collected during the urban process mapping activity done with Andreas Klarlund, we developed the following stakeholder map showing who has the biggest impact during an urban planning process. Closer to the centre are those who have the greatest power to make decisions and take action.

In the stakeholder map, urban planners are at the centre, as they are the most influential stakeholders in shaping Copenhagen's neighbourhoods. Close to them there are politicians and, when relevant, landowners, particularly if the urban project involves the private sector. Both politicians and landowners can influence the project since they have the power to approve or reject it.

Experts (engineers, architects, consultants, etc.) hold significant influence, assisting urban planners with the technical aspects of the urban project. Local stakeholders (local businesses, local associations, etc.) and citizen representatives are on the same level as experts. Specifically, citizen representatives are a group of individuals who actively participate to represent their community's interests throughout the process, as Andreas Klarlund explained during the interview.

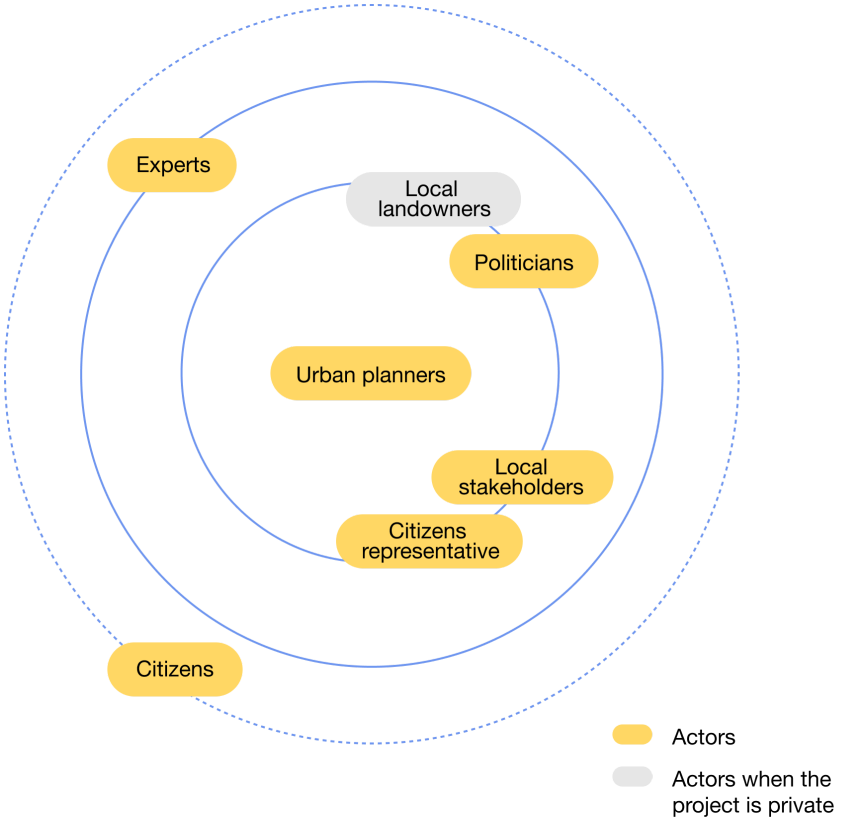


Figure 15. Stakeholder Map of the current urban renewal process

Farthest from the centre are the citizens. Although the current urban renewal process considers their input and involves them in some steps of the present process, their influence is comparatively the lowest among all stakeholders.

4.2.3 Scoping down our Focus Area

The interview conducted with Andreas Klarlund marked a crucial stage in our design process. Understanding the steps of the urban renewal process employed by the Copenhagen Municipality guided our decision to focus our service on this specific process. The extensive data we gathered reinforced our choice to implement the urban renewal process of Copenhagen. Consequently, the subsequent phases of the design process were dedicated to this implementation.

After the identification of the main insights (see section 4.2.1.4), we clustered them aiming to define the problem to solve, the goal of our service and the guidelines to follow (Figure 16).

The problem

In analysing the problem, we found that the urban renewal process in Copenhagen primarily considers long-term aspects in terms of people using the area after its implementation, neglecting systemic and organisational considerations. Furthermore, the current process lacks methods for adaptability and post-project improvement over the long-term.

From the citizens' viewpoint, several issues set back their participation: limited accessibility to information, challenges in balancing priorities and time, perceived minimal impact on decision-making, and language barriers for non-Danish speakers. Additionally, there is a concern about the dominance of older voices in participatory decision-making processes, leaving younger groups feeling marginalised.

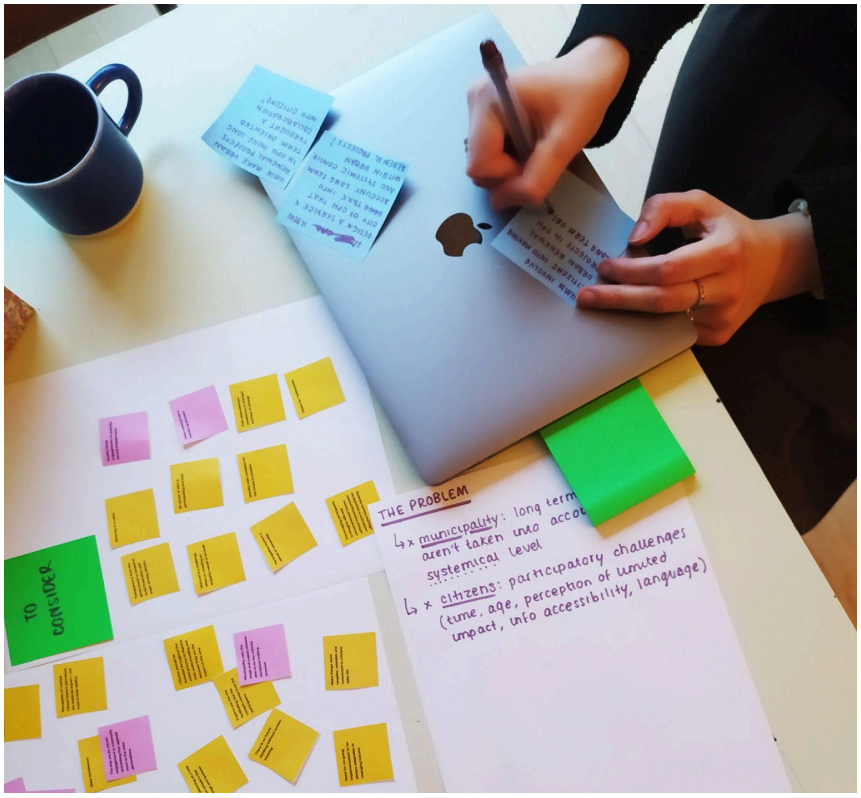


Figure 16. Our process for scoping down the focus area

The goal

While defining the service's goal, it is important to recognise its systemic dimension, as exemplified in the statement "There is no future thinking without system thinking" (see section 4.2.1.4). This also underscores the necessity for the new service to incorporate ongoing implementation, ensuring adaptability to future needs. Given that the Municipality sets the context and empowers citizens in

decision-making processes, it is necessary that urban planners involve citizens and facilitate their participation throughout the entirety of the process. This inclusion is vital for enhancing their comprehension and leveraging their expertise in the area.

Our guidelines

To achieve our goal, we established the guidelines that follow, based on the data acquired in the Develop step, to be taken into account while creating the service for the City of Copenhagen:

- The Municipality should prioritise transparency in its urban renewal process, to avoid mistrust when co-designing
- Path dependencies and fear of change must be considered during the service development
- It is important to be aware of the risk of imposing present constructs
- Relatability and tangibility for citizens are essential aspects to be emphasised
- Participant bias should be acknowledged and addressed
- Empathy should be integrated to avoid mistrust in the service delivery process
- It is beneficial to identify the main future variables that should be monitored

4.2.4 Identification of Potential Opportunity Spaces

In light of the issue Andreas pointed out about the absence of long-term considerations in his current urban renewal approach (see section 4.2.1.3), we reviewed both his existing process and how a standard city-foresight process could look like (see section 4.1.1.3). In this way, we pinpointed three steps where these methods could be combined by introducing Foresight elements and creating a new implemented urban renewal process.

Dialogue with stakeholders

In this phase, where urban planners start the investigation of the chosen area in collaboration with relevant stakeholders, there is the opportunity to introduce future analysis of the area and horizon scanning to produce a set of signals of change and future variables. By identifying signals of change and future variables, urban planners can incorporate these factors into their project designs,ensuring that they are more adaptable and resilient to future developments.

Design the Kvarterplan

When urban planners have to present the plan for the chosen area, they keep in consideration all the data collected previously. Based on them, a Kvarterplan is created with the implementation plan for the area. Therefore, incorporating some visioning exercises as part of a collaborative effort with citizens might prove to be helpful in developing some possible ideas that can be developed as part of the Kvarterplan.

Make plans more concrete and identify potential issues

In this phase, urban planners translate the ideas presented in the Kvarterplan into physical projects that will last for the next five years. With the implementation of Foresight and the creation of visions of the area, urban planners start an iterative phase in which they explore how

those plans can be implemented in the area, identifying potential obstacles and issues in the area. During this phase, the greatest opportunity was identified in the implementation of long-term initiatives and strategies to translate the visions previously created into action plans.

We decided to focus on exploring and developing in detail only the *Make plans more concrete and identify potential issues* step, as it aligns with the theme of our research question. Additionally, the limited timeframe of the thesis project influenced our decision. Therefore, we opted to delve deeply into one step rather than cover three steps at a higher level.

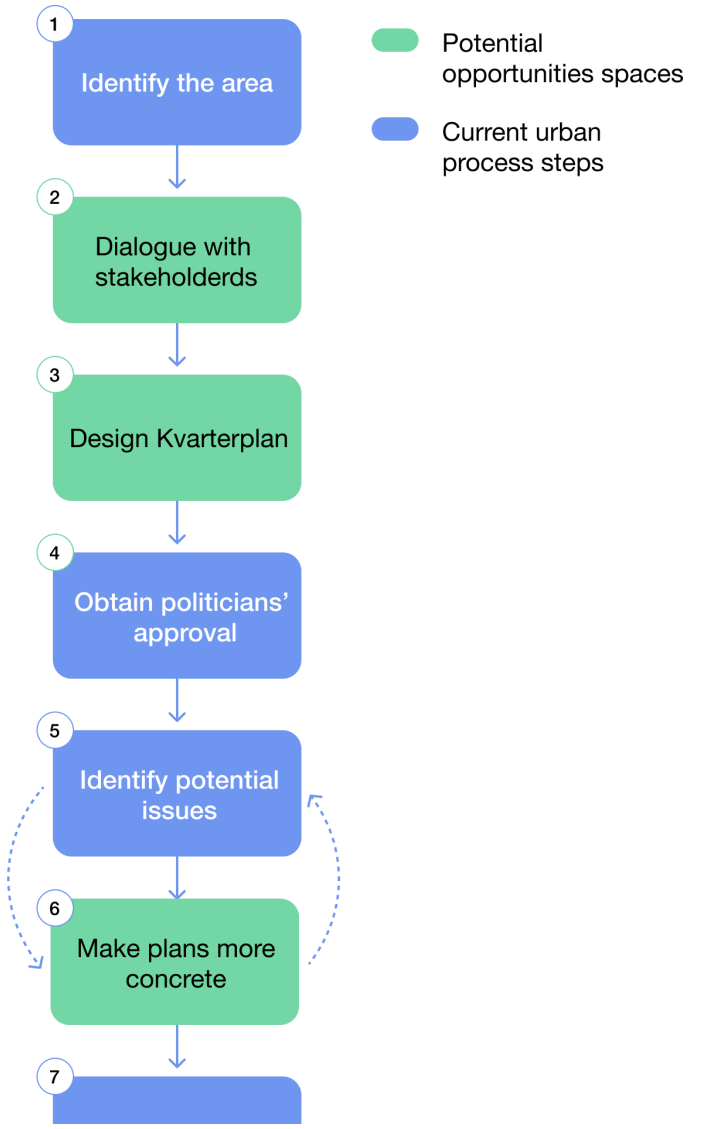


Figure 17. Potential Opportunity Spaces in the urban renewal process

4.2.5 Target Group

The identification of the target groups have been scoped down after the previous research carried out so far. As a result, urban planners and citizens have been identified as the two main target groups for our design process. Following this, through the data gathered, we identified their pain points and wishes to be tackled with the new service.

From the urban planner perspective the pain points are: 1) long-term considerations are not taken into account, while there is the need to consider future implications when implementing an urban project; 2) enabling citizens to take part of the process, facilitating their participation; 3) citizen participation is limited only to a small portion of the population of the area, thus there is the need to expand the level and the target of the participation.

The main wish for urban planners can be identified with creating feasible and resilient output for the neighbourhoods of Copenhagen.

ACTORS	PAINPOINTS			WISHES	
Urban renewal planners	implement long term considerations in the process	facilitate and enable citizens to be part of the process	expand the level and the target of participation	create feasible and resilient outputs	
Citizens	time costraints and balancing prorities	accessibility to info	feeling of limited impact and older dominance	being part of the city visioning	being considered during the urban process

Table 1. Pain points and wishes of the target groups

When analysing the citizens' point of view, the pain points identified are: 1) time constraints due to the everyday schedule; 2) the accessibility to the information needed to understand how to participate to the process: 3) there is a general feeling that the idea of citizens have a low impact in the decision making process of urban development.

On the other hand, when analysing the wishes, citizens would like to be part of the urban development process, in particular in the vision phase and to make their ideas considered more.

At this point, it was necessary to take a decision on the focus for the next steps in the design process. Considering the data collected, our research question and our personal ambitions, we decided that the service should primarily focus on implementing the current urban renewal process. This would involve helping urban planners integrate future thinking based on visions created by citizens. Moving forward, urban planners will be our main target group. However, we will continue to consider the pain points and wishes of citizens, ensuring their involvement in the new service.

4.2.6 Redefined Design Brief

As illustrated in section 4.2.4, we identified three main opportunities within the current urban renewal process that might be implemented to help urban planners to foster long-term thinking in the city of Copenhagen. A revised design brief was therefore required in order to provide a space for ideating a new service concept, given the wealth of data gathered during the Discover and Define phase.

Firstly, we focused on the specific problems and goals we had previously identified (see section 4.2.3), targeting urban planners and citizens. Therefore, problems and goals have been reformulated as illustrated in Table 2.

THE PROBLEM	THE GOAL
x municipality: long term considerations aren't taken into account on a systemical level *x citizens:* participation challenges (e.g. perception of limited impact, time, accessibility info...)	*design a service to involve city stakeholders in translating citizens' visions into actions that:* • have a systemic perspective • consider future adaptability • include citizens into the process • help experts to enable citizens to design new futures

Table 2. Problems and goals that the new service concept needs to address

Furthermore, we created an impact table to determine the type of impact that the new service must produce for the designated target groups (Table 3). In relation to the urban renewal planners, the service has first to provide a system perspective and continuing implementation in order to guarantee adaptability to future changes.

Considering also the citizens, the new service has to boost their sense of involvement in determining the future of the neighbourhood selected for the Kvarterplan and it must foster empathy and trust by involving people in the urban renewal process.

Considering all this, we narrowed down our initial problem statement formulating a new refined problem statement.

Initial problem statement:

How might we design a service that helps Copenhagen Kommune to integrate participatory long-term thinking in the development of the city?

Refined problem statement:

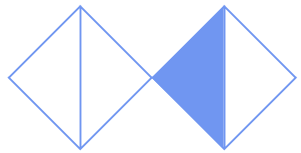
How might we design a service for the City of Copenhagen to involve relevant stakeholders in a long-term city planning on a local level?

Before moving to the next phase of the design process, it was essential to identify which topics needed to be explored and developed: 1) how the current urban renewal process will be implemented with the Foresight addition; 2) what are the goals and actions in each phase of the implemented urban renewal process; 3) how to guarantee a system perspective and an ongoing implementation throughout the implemented urban renewal process; 4) who are the stakeholders involved; 5) in which phase of the implemented process citizens are involved and in which way.

ACTORS	PAINPOINTS			WISHES		IMPACT OF OUR SERVICE		
Urban renewal planners	implement long-term considerations in the process	facilitate and enable citizens to be part of the process	expand the level and the target of participation	create feasible and resilient outputs		system perspective and on-going implementat ion		
Citizens	time costraints and balancing prorities	accessibility to info	feeling of limited impact and older dominance	being part of the city visioning	being considered during the urban process	be included in shaping the future of the area	make futures more tangible, connected to daily life	build trust and empathy

Table 3. The impact that the service concept need to generate

4.3 Develop



In the first part of the Develop phase, the design process focused on understanding how the insights from previous steps could inform the creation of an initial service proposal. First, we discuss the structure and results of a workshop conducted with Urban Experts, which led to the preliminary Lenses Framework. Then, we present an interview with an urban planner from Gehl, which was conducted to gain insights on formulating the Lenses. This is followed by a round of ideation, using various tools and methods to outline the final service concept. Finally, we explain the Service Walkthrough conducted with the Copenhagen Municipality for a co-creation and validation session of our concept.

In this subchapter, the following sections will be discussed:

4.3.1 Workshop with Urban Experts

Our Develop phase kicked off with a workshop to involve urban planners and urban experts in our process.

4.3.1.1 Goals and structure

The workshop served as a way for understanding urban planners' criteria, obstacles and needs when transitioning from conceptualising project ideas to implementing them. We also explored how Service Design and Foresight tools can be combined to guarantee visions' actionability.

The workshop was structured as follows and consisted of a two-hour session with two urban experts.

Introduction and warm-up

We began the workshop by introducing ourselves and our thesis project. Then, we showed our proposed and implemented process for the urban renewal department, integrating Foresight methodologies (see section 4.2.4). A key part of our presentation was our approach to consider long-term thinking and future visions as part of the urban planning process.

During the warm-up, participants were asked to envision a new, positive future for a specific area in Copenhagen, the Lakes. Post-it notes were used to capture their visions of what this area might look like in 20 years. After the exercise, participants had an opportunity to share and explore their ideas in a five-minute group discussion.

Workshop participants were then asked to look at the warm-up vision as an example to use during the next exercises and understand what urban planners need to consider when translating an initial idea into goals and actions.

1st exercise - Criterias

As part of the first exercise, participants were asked to define some criterias for urban renewal projects. They were requested to consider the question: "We reach our goals successfully when we are/can/achieve..." Responses were collected on post-its and displayed on the template, providing a framework for the next discussions.

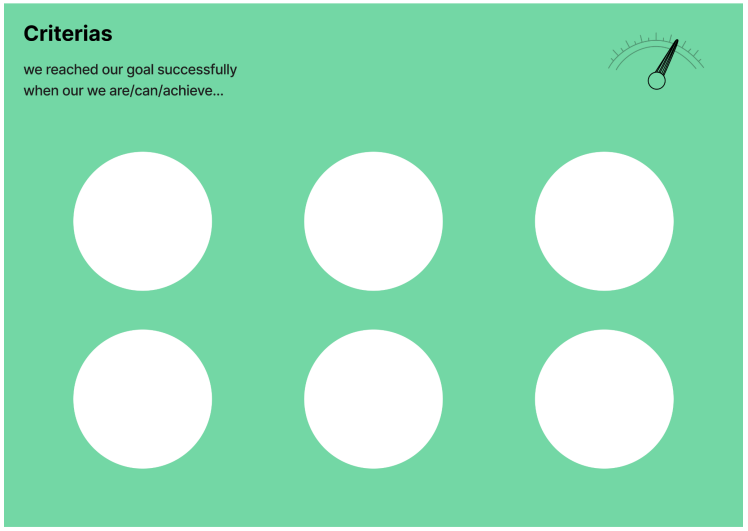


Figure 18. 1st exercise (Criterias) template

2nd exercise - Obstacles

Next, the workshop focused on potential obstacles that could challenge the success of urban renewal efforts. Participants engaged in a thoughtful discussion on the challenges faced by the Lakes communities and the factors that could inhibit progress. These insights were also recorded on the template for reference.

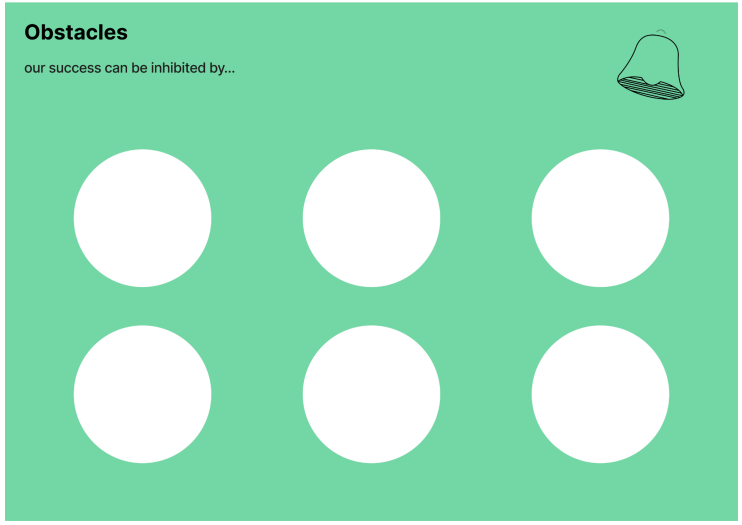


Figure 19. 2nd exercise (Obstacles) template

3rd exercise - Competences

In the third exercise, participants were encouraged to share their perspectives on the competencies required to achieve the defined goals for the Lakes communities. This discussion highlighted the diverse skill sets needed for effective urban renewal projects.

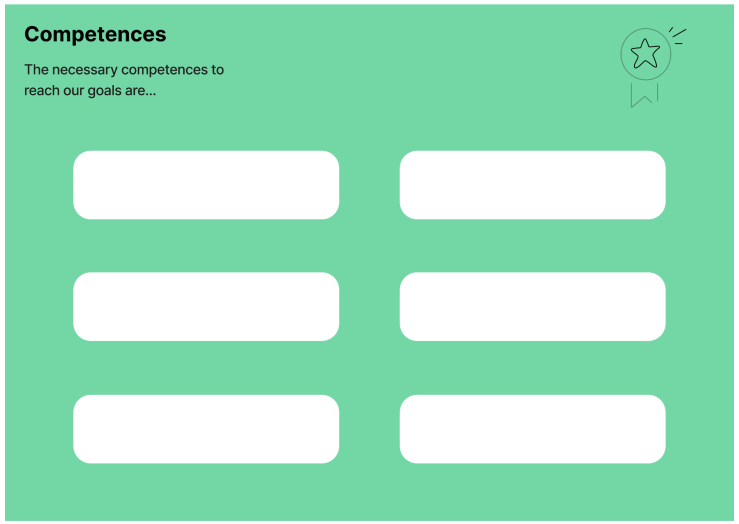


Figure 20. 3rd exercise (Competences) template

4th exercise - Creating Your Toolkit

In the final exercise of the workshop, we introduced participants to a range of tools commonly used in Foresight methodologies when translating visions into actions. These tools have already been presented in section 4.1.1.4 and included: Three Horizons, Backcasting, the Three spheres of transformation, Wind Tunneling and Scenario Immersion. Additionally, we presented a second group of tools from Business, Foresight and Service Design disciplines that could potentially complement and support the selected Foresight tools in the transition from visions to actions.

The second group of tools is presented in the following table 4.

Table 4. Tools presented during the workshop

Tool	Description
Roadmapping	Roadmapping (Government office for Science, 2017) is a strategic planning method that visually outlines the steps and milestones required to achieve a desired outcome or goal. It provides a structured framework for aligning resources, activities, and timelines to guide decision-making and implementation processes.
Experiential future ladder	The Experiential Futures Ladder (Smith & Ashby, 2020, p. 147) is a framework designed to facilitate the conceptualisation and communication of potential future scenarios. It operates through a series of layers, progressing from abstract future concepts to more tangible and understandable scenarios. The layers include Setting, Scenario, Situation, and Stuff. By traversing through these layers iteratively, users can refine and articulate the desired future outcomes more effectively.
Scenario readiness	The framework analyses the readiness of a scenario and consists of five layers within an organisation or group: People, Knowledge, Tools, Rules and Networks. The layers are defined based on the opportunities and risks that a given scenario presents (Smith & Ashby, 2020, pp. 165-169).
Impact complexity matrix	The Impact Complexity Matrix (Feo, 2023) is a structured methodology designed to assess the complexity and potential impact of various factors within a given context. It provides a systematic framework for evaluating the interconnectedness, magnitude, and implications of different variables or components within a system, project, or problem space.
SWOT analysis	SWOT analysis (Lindley, 2023) is a strategic planning tool used to identify and evaluate the Strengths, Weaknesses, Opportunities, and Threats affecting a business, project, or organisation. Organisations need to keep the analysis accurate by avoiding preconceived beliefs or grey areas and instead focusing on real-life contexts.
STEEP analysis	STEEP (Smith & Ashby, 2020, p.96) analysis is a strategic tool used to assess external factors affecting an organisation by examining Social, Technological, Economic, Environmental, and Political factors. One worksheet for each scenario developed is usually collaboratively completed, having an open discussion or debate about each category and measure.
Value proposition	A value proposition canvas (Patricio et al., 2011, p. 182) is a map that helps designers see if their idea for a product or service matches what people actually want. It shows who the customers are, what problems they have, and how the idea can make their lives better.
Empathy map	The empathy map (Service Design Tools, n.d.) is a canvas split into four quadrants (says, thinks, does,

	and feels), all positioned around the user. Filling the map allows to produce an overview of who the user is, and to identify inconsistencies in the perception of the same user from various team members (and so intervene to mitigate the conflict).
Prototype (physical/digital)	Prototyping (Stickdorn et al., 2018, p. 64-66) has the objective of replicating, as much as possible, the final experience of interacting with the service/project, in order to test and validate all the design choices. Touchpoints could be simulated with different levels of fidelity. It can be physical or digital, depending on the project.
Blueprint	A service blueprint (Bitner et al., 2008.) is a diagram that displays the entire process of service delivery, by listing all the activities that happen at each stage, performed by the different actors involved. It represents the flow of actions that each role needs to perform along the process, highlighting the actions that the user can see (above the line of visibility) and the ones that happen in the back-office (below the line of visibility).
Stakeholder map	The stakeholder map (Stickdorn et al., 2018, pp. 59-60) is a representation of all the stakeholder involved in a project, aimed at clarifying roles and relationships.
Journey map	The journey map (Stickdorn et al., 2018, pp. 44-47) is a synthetic representation that describes step-by-step how a user interacts with a service/project. The process is mapped from the user perspective, describing what happens at each stage of the interaction, what touchpoints are involved, what obstacles and barriers they may encounter. Often levels of positive/negative emotions experienced are also represented.
Personas	A persona (Stickdorn et al., 2018, p. 41) is a reference model representative of a specific type of users. The persona is built considering their needs, desires, habits and cultural backgrounds of specific groups of users.
Ecosystem map	The ecosystem map (Stickdorn et al., 2018, pp. 62-63) is a synthetic representation capturing all the key roles that have an influence on the user, organisation and service environment. The ecosystem map is built by first displaying all the entities, and then connecting them based on the type of value they exchange.

Participants were provided with cards featuring illustrations and brief descriptions of these tools. They were then tasked with identifying the best combinations of tools based on their expertise and insights to create their ideal process. This hands-on activity encouraged participants to think critically about the tools presented to them and how they could be applied in real-world urban planning.

Figure 21. 4th exercise (Tools) template

Reflections - Questionnaire

To conclude the workshop, participants were provided with an online questionnaire (see Appendix D) to reflect on their experiences and insights. The goal with the questionnaire was to get feedback on the workshop itself and on the thesis topic, giving the participants time and space to reflect individually.

4.3.1.2 Results

The results will be presented and described following the workshop structure.

Warm-up

The participants built their vision of the Lakes around the idea of building a biodiversity park, enabling the city to preserve species and create a new green lung.

1st exercise - Criteria

The response to this exercise was not targeted from the outset as the word 'criteria' was understood as a calculable parameter to measure success. We therefore had to guide the conversation and redirect it to the analysis of elements to consider when planning.

The answers given by the participants were as follows:

- Understand Local fauna & flora, including in the process experts in those fields
- Understand climate change in relation to flora and fauna
- Increase of animals
- Look at future masterplan
- Target: animals and plants
- Prototyping the change

The answers were completely based on the vision they decided on at the beginning of the workshop, therefore after the workshop we internally tried to make them more abstract and general. Finally, we concluded that the elements and aspects that need to be taken into account when translating a vision into actions are: Stakeholders, Context, Consideration of future shifts, Masterplan, Target, Prototype/test that what you are developing takes in consideration all the relevant elements previously listed.

2nd exercise - Obstacles

The answers given by the participants were as follows:

- Local citizen / neighbourhood against change (Lost of local identity, tourist attraction)
- Cost opportunity: a city/land management issue and Money/cost
- Disconnected from nature, there is not a natural corridor
- Lakes are not replaceable
- Wicked long urban process

Once again, the answers were based on the vision chosen by the participants, so we re-elaborated them by identifying the following obstacles: citizens can be seen as a barrier if they are not integrated in the process; there might be budget, environmental and technical issues; it takes time to conclude a long-term project and things may change along the way.

3rd exercise - Competences

For this exercise, participants focused on the professionals they would need to carry out the project. The figures identified were as follows:

- Researchers in biology and environment
- Environmental psychologist to see the benefit of project for citizens to investors
- Landscape architects
- Urban planners (how it works with the city)
- Foresights / future experts
- Citizen representatives
- Strategic consultants and facilitators to talk and work with citizens
- Money experts

During the course of the exercise, participants emphasised how in projects of this kind it is essential to have and facilitate cross-disciplinarity.

4th exercise - Creating Your Toolkit

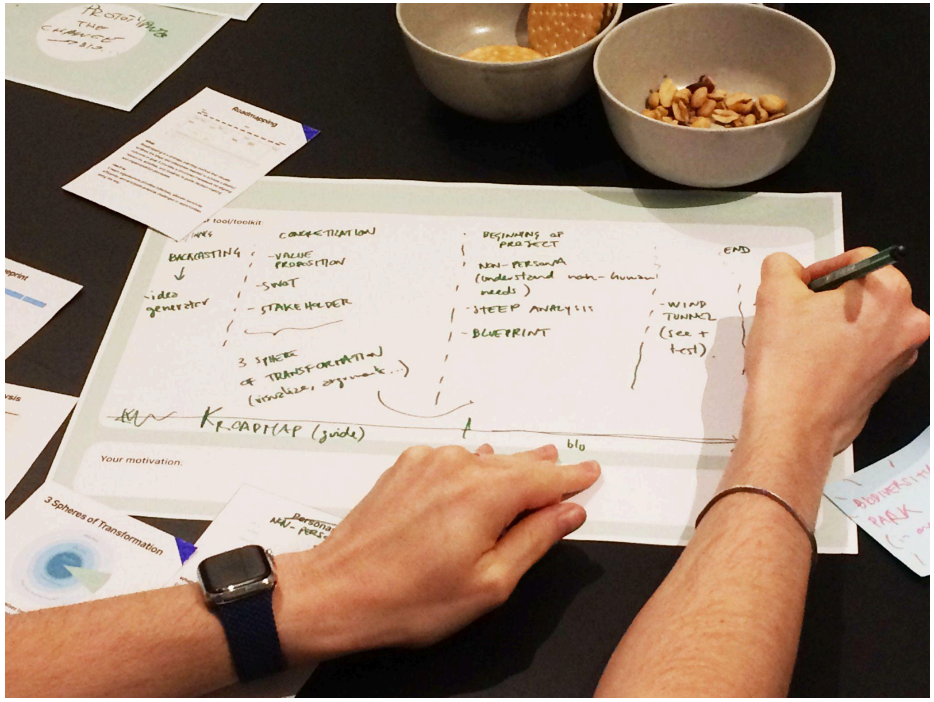


Figure 22. Participants filling the toolkit template

Participants created their process for translating visions into actions dividing into five phases and supporting it with different tools, as it is shown in Figure 22. Following their process, the project should start with a *Beginning* phase to backcast the future and generate more ideas about the future; then a *Concretisation* phase should present the project in more detail. Then there is the actual *Beginning of the project* phase, so there is the need to understand for whom urban planners are designing; after this, a *Test* phase is needed to try out the project. The *End* is when the physical implementation is open, after the consideration of all the previous elements. In the meanwhile, a roadmap is provided to guide the process and align the stakeholders involved in all the steps. Those steps are then represented through the use of a blueprint.

Despite a lack of knowledge on the subject of Service Design and Foresight, participants recognised the importance of conducting a preliminary analysis of stakeholders and final users of the chosen project. Moreover, they emphasised the need to define an action plan, test the concept before implementation and official launch, and have an alignment tool to facilitate dialogue among those involved.

4.3.1.3 Reflections

The primary reflection, which relates to the entire workshop, is that while utilising the vision created during the warm-up exercise helped to facilitate the thinking process, it made the answers specific and

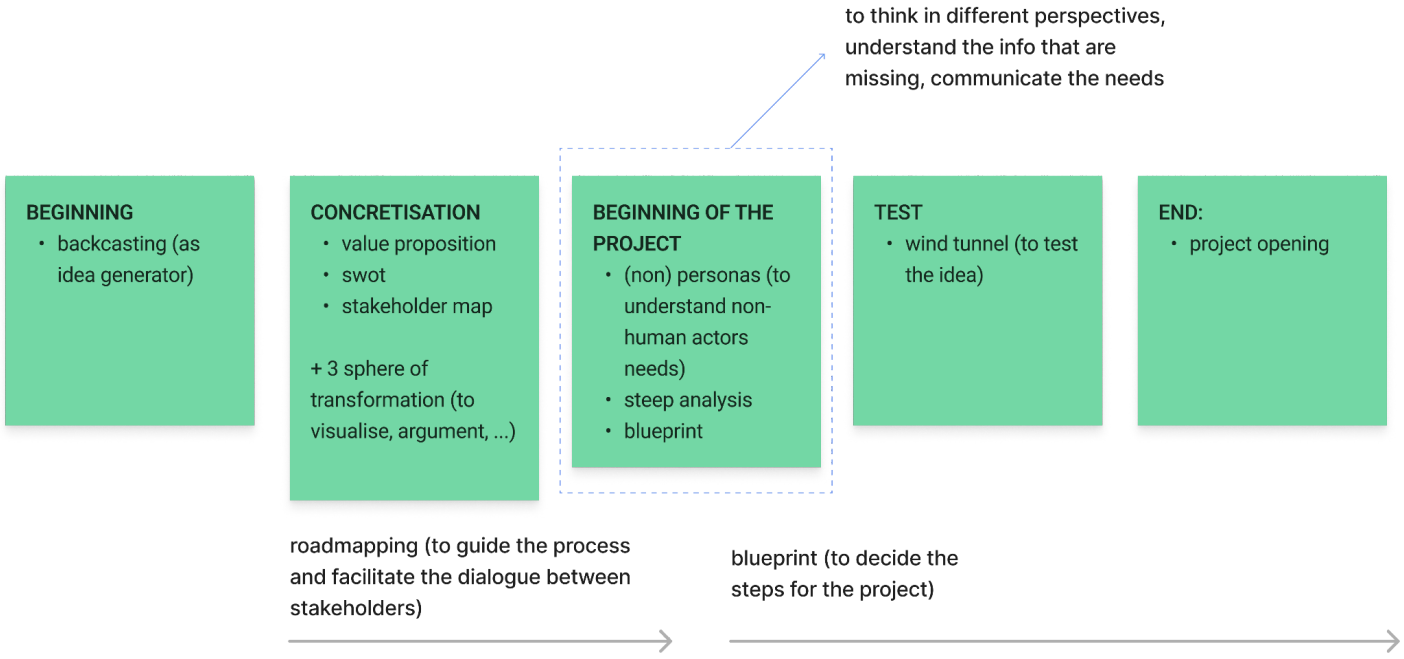


Figure 23. Results from 4th exercise of the workshop

closely tied to the vision, making it challenging to think broadly about the process during the following exercises.

When presenting the tools to translate visions into actions in the fourth exercise, some of them were too business/product-oriented. Consequently, participants found it difficult to think creatively beyond conventional applications and weren't aware that these tools could be adapted to different contexts. Moreover, we realised that becoming familiar with and comprehending these tools necessitated significant time and concentration, as demonstrated during the exercise. Therefore, it might have been beneficial to do this type of activity with service design practitioners, since they would have provided a more thoughtful output, being already familiar with the tools.

We avoided actively facilitating and sharing our knowledge as service designers during the discussion about the tools, opting to observe how non-experts approached them for the first time. Nevertheless, the overall perceived difficulty level of the fourth exercise, as indicated by the questionnaire responses, was low.

Overall, the workshop can be viewed as successful. Indeed, as noted by one participant in the questionnaire, "It is valuable to think about urban intervention from a service design perspective, utilising these tools to aid in the design and planning process. I think architects naturally think this way sometimes but then do not put it to paper, leading to communication issues across different stakeholders. Using these tools would be good to give more structure to abstract processes and to help translate knowledge across disciplines" (see Appendix D.2).

Thus, through this workshop, we understood that adopting a Service Design perspective might be beneficial during the translation of future visions into actionable steps within the urban renewal process. By employing a Service Design perspective,urban planners can utilise specific tools to provide structure to abstract and complex processes, which are often left undocumented by architects. Moreover, this structured approach ensures that all stakeholders, from urban planners to community members, have a clear understanding of the vision and their roles in the process. Finally, Service Design also emphasises user-centred planning, ensuring that the needs and desires of final users are prioritised. This approach leads to more inclusive and responsive urban environments.

4.3.2 Lenses Exploration

According to the research question 'How can we integrate Service Design and Foresight methods to translate visions into actions in the urban context?', at this point it became essential to understand how to combine Service Design and Foresight for this specific step in the urban renewal process.

First, we considered how the literature review and interviews revealed the importance of looking at the systemic level of projects and how "there is no future thinking without system thinking" (see section 4.2.1.4). Furthermore, based on the insights gained from the workshop with urban experts, it is clear that certain recurring and fundamental elements must be considered in all urban renewal planning processes. Those are: stakeholders' involvement, context analysis, consideration of future shifts, masterplan considerations, target identification, budgeting, environmental and technical issues.

Considering the workshop, the interviews and literature review, we started thinking about the possibility of using some "lenses", as part of a framework, to translate visions into actions. The "lenses", yet to be specifically identified, were understood as thematic layers through which the vision could be analysed and concretised. According to our idea, the result of this process is an *adapted vision* that can be identified with an actual urban project concept.

We realised the similarity of the lens concept with an existing tool, the PESTLE (Political, Economic, Sociocultural, Technological, Environmental and Legal) analysis. The PESTLE analysis is a widely used strategic planning tool that helps organisations assess internal and external factors influencing their operations and decision-making (Božić, V., 2023). Therefore, we decided to use it as a starting point to outline the content for our framework.

Furthermore, as the insights gathered from the interviews and workshop (see sections 4.2.1.2 and 4.3.1) suggested, an ongoing iteration through the process is needed. The *adapted vision* therefore has to undergo an iterative prototyping phase, before delivering an action plan for the implementation. Once the *adapted vision* has been prototyped and tested, the action plan can be created and the implementation phase can start (see Figure 24).

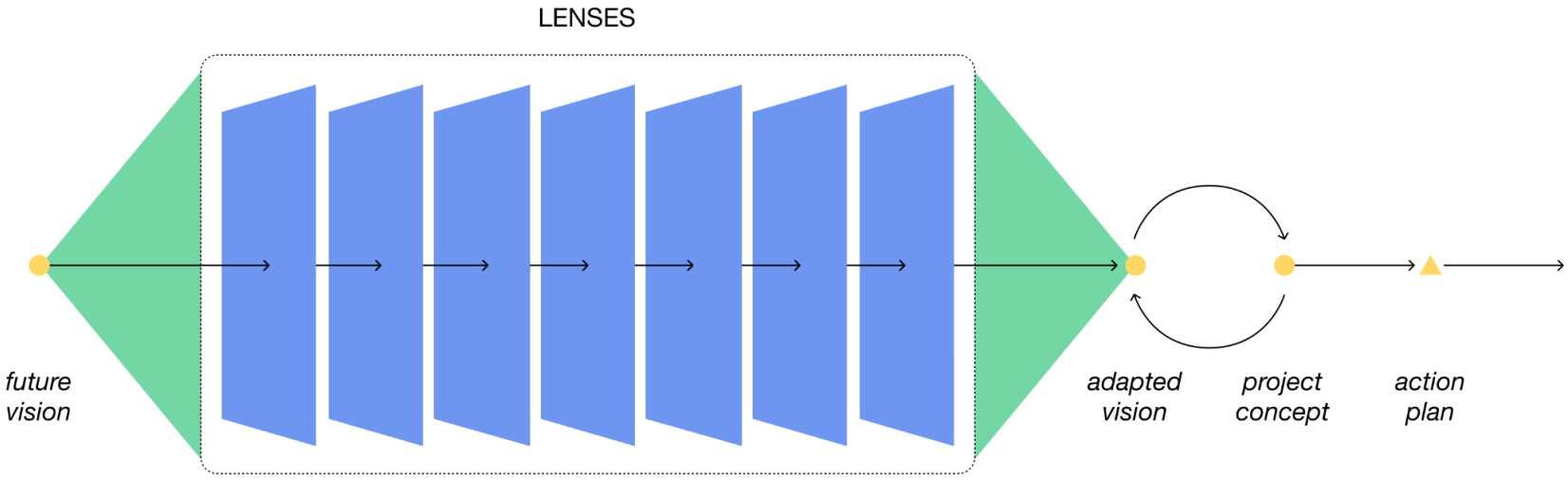


Figure 24. Lenses Exploration process

4.3.3 Interview with Gehl

During the Develop phase, we had the opportunity to arrange an interview with Rasmus Duong-Grunnet, Director at Gehl. Gehl is a networked urban design and research consultancy, which addresses global trends using empirical analysis to design for social behaviour that drives meaningful change (Gehl, 2023).

4.3.2.1 Goals and structure

The purpose of this interview was to receive feedback on the lenses concept and to gain a better understanding on how the lenses might be applied in the urban context and which stakeholders should be considered.

The interview consisted of a 1 hour session and was structured as follows.

Introduction

Firstly, we presented ourselves, our design brief, the implemented urban renewal process and the translating process with the lenses with a digital presentation (see Appendix E).

Exercise

We invited Rasmus Duong-Grunnet to do an exercise that was structured in order to have several A4s, each of them representing one of the parameters of the Pestle Analysis: Political, Economic, Social, Technological, Legal and Environmental (Appendix E.2). We also presented a few blank templates, so that the interviewee could add more lenses if needed. Once the templates were presented, we asked the respondent to describe each of the lenses and give each one a definition from his perspective as an urban planner. Finally, we asked him to evaluate which lenses required a higher level of expertise and which ones could include citizens' involvement.

4.3.2.2 Results

When presenting our framework, Rasmus Duong-Grunnet immediately recognised its similarity with Gehl's approach, which is based on continuous testing and prototyping in the urban setting to reach the purpose defined at the beginning of the project.

Rasmus Duong-Grunnet confirmed that the lenses can be relevant for urban projects, covering all aspects to be considered in an urban planning process. In addition to the presented lenses, he felt it necessary to add a sixth one, the Local Context Lens, which focuses on the civic context on a more individual level, understanding the needs of the local residents. He also highlighted that the Legal Lens can be seen as the general context to which the entire process and the other lenses have to refer.

Finally, he described the parameters and aspects to be considered in the urban environment for all the lenses. The results are described in section 4.3.4 with the presentation of the preliminary Lenses Framework.

4.3.2.1 Reflections

The interview with Rasmus Duong-Grunnet was a significant moment for the process, as he validated our goal to integrate specific lenses as a vision translation tool in the urban process. In addition to this, he suggested that an iterative process is also needed between the lenses themselves and after the action plan is designed. This reflection was then integrated into the Lenses Framework as will be explained in section 4.3.4.

4.3.4 Preliminary Lenses Framework

With the results of the interview with Rasmus Duong-Grunnet and the analysis that followed, it was possible to rework on the concept of lenses and create a preliminary version of what we called the Lenses Framework.

4.3.4.1 The Lenses

We were able to outline the meaning of the lenses according to the urban context by defining a series of questions that each lens should explore. We also identified some suggestions and examples of potential tools we could use to explore lenses and in general what purpose they should have. On the other hand, we are aware that the research of the right tools to use in each lens requires further research (see section 5.3). The outcomes are presented as follows.

Legal Lens

The explorative questions are:

- Zoning Laws: What are the zoning regulations governing land use and development in the neighbourhood? Take into consideration the planning regulatory framework, considering city plan and local plan.
- Building Codes: What building codes and regulations must be adhered to in the construction of new developments?

This lens does not provide specific suggestions regarding the tools, since it is focused on evaluating if the other lenses effectively address its criteria, rather than calling for an active engagement.

Local Context Lens

The explorative questions are:

- Demographics: What are the demographics of the current and projected population in the neighbourhood?
- Community Needs: What amenities and services are lacking in the neighbourhood, and how can the development plan address them? Which assets are already working well?

This lens requires an understanding of the demographics and the citizens needs of the area through the use of different analysis and engagement tools, that could be persona (see section 4.3.1.1) and empathy map (see section 4.3.1.1).

Social Lens

The explorative questions are:

- Cultural Diversity and Inclusion: How diverse is the neighbourhood in terms of cultural backgrounds, languages spoken, and traditions?

- Social Cohesion and Community Building: What social networks and community organisations exist within the neighbourhood, and how can they be supported and strengthened?
- Accessibility and Inclusivity: How can the development plan ensure that infrastructure and services are designed to be inclusive and cater to the diverse needs of all residents?

This lens requires an understanding and mapping of the social ecosystem of the area to identify existing social resources and strengths that can be leveraged to realise the future vision. Some tools that could be used are stakeholder map (see section 4.3.1.1), ecosystem map (see section 4.3.1.1) and brainstorming (Service Design Tools, n.d.).

Political Lens

The explorative questions are:

- Local Government Policies: What planning policies does the local government have in place for the neighbourhood?
- Stakeholder Influence: How might political interests and lobbying from various stakeholders influence the development plan?

This lens requires an alignment of the expectations of citizens with the political assets of the neighbourhood and an example of a tool that could be used to do it is the value proposition canvas (see section 4.3.1.1).

Environmental Lens

The explorative questions are:

- Green Spaces: How can the development plan incorporate green spaces and sustainable landscaping to improve the neighbourhood's environmental quality?
- Climate Resilience: What measures can be taken to mitigate the neighbourhood's vulnerability to climate change-related risks, such as flooding or extreme heat?
- Environmental Impact: How can the development plan minimise environmental impact through sustainable design and construction practices?

This lens requires an understanding of the ways that can promote sustainable development practices, mitigating environmental risks, and preserving green spaces within the neighbourhood. A few tools that could be used for this lens are: impact effort matrix (see section 4.3.1.1), SWOT analysis (see section 4.3.1.1), and brainstorming (Service Design Tool, n.d.).

Technological Lens

The explorative questions are:

- Infrastructure: What technological advancements can be integrated into the neighbourhood's infrastructure to improve connectivity, energy efficiency, and safety?
- Smart Solutions: How can smart technologies enhance the quality of life for residents and businesses in the neighbourhood?
- Digital Inclusion: How can digital inclusion initiatives ensure equitable access to technology and information for all residents?

Based on the vision selected, experts are included into the development of the project to assure the feasibility of the vision without citizens' participation.

Economical Lens

The explorative questions are:

- Market Demand: What is the demand for housing, commercial spaces, and amenities in the neighbourhood?
- Infrastructure Costs: Consideration of costs for building and maintaining infrastructure.
- Affordability: How do income levels and affordability impact the feasibility of development projects in the neighbourhood?

This lens requires democratic ways to engage citizens within the process, deciding how to spend part of a public budget and being involved in the business development of the area, for example through participatory budgeting (Participatory Budgeting Project, 2024).

For each lens, we also hypothesised the level of participation that citizens might have in using the framework, according to the discussion we had with Andreas Klarlund and Rasmus Duong-Grunnet (see Figure 25). It should be noted that participation is absent or low in lenses where a certain level of expertise is required, while it is at its highest when it comes to studying and understanding the context.

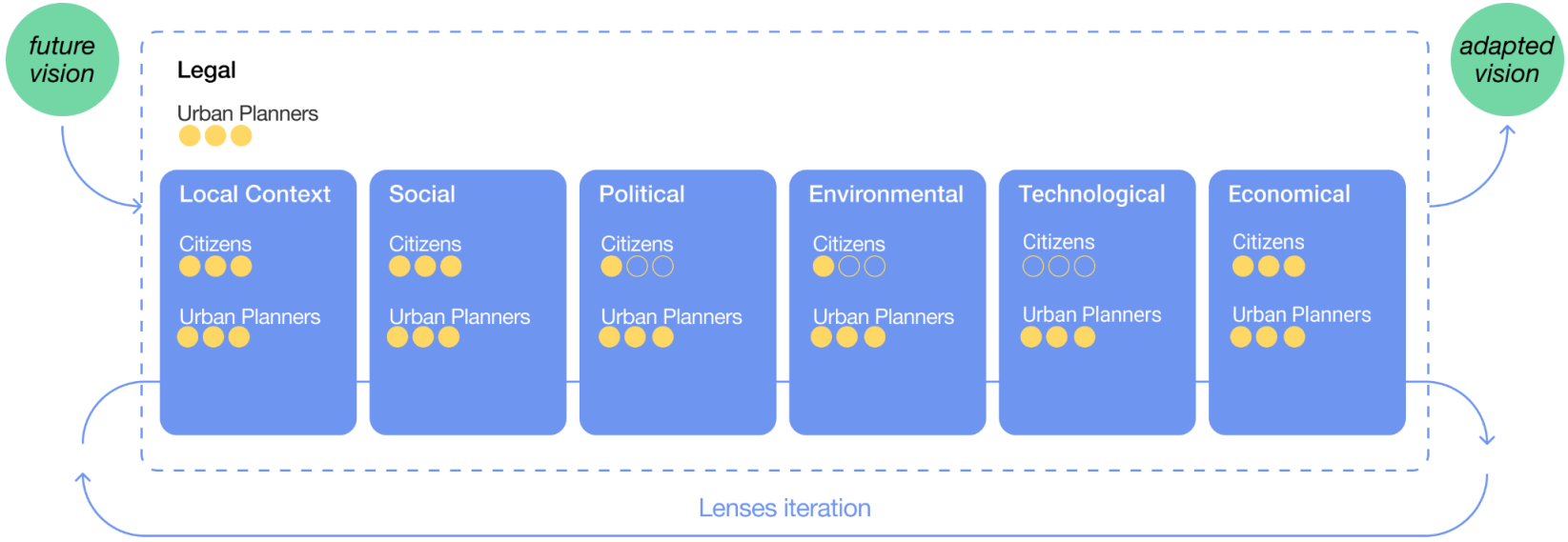


Figure 25. Preliminary Lenses Framework

4.3.4.2 Steps for translating visions into actions

Regarding the topic of iteration (see section 4.2.1.4), we identified three steps that come after the creation of a vision and that constitute the "translating visions into actions" process: 1) Defining, in which the vision is defined and concretised through the Lenses Framework; 2) Prototyping, in which the *adapted vision* (or project concept) is tested; 3) Planning, in which a roadmap is created to understand how to implement the project in reality (see Figure 26). On-going iteration is here proposed at three different levels: between the lenses, to ensure that all the considerations in translating the vision are taken; between Prototyping and the lenses, to examine if the project concept is aligned with the lenses; and finally between the action plan and the lenses, to examine if the plan is always aligned with the lenses. Following the action plan, the actual implementation of the project is then initiated, which however still requires continuous iteration with the action plan to foster long-term adaptability.

The three steps just mentioned are incorporated into the implemented urban renewal process discussed previously (see section 4.2.4). Therefore, they are conducted after the politician's approval of the Kvarterplan and are followed by an evaluation phase (see Figure 27).

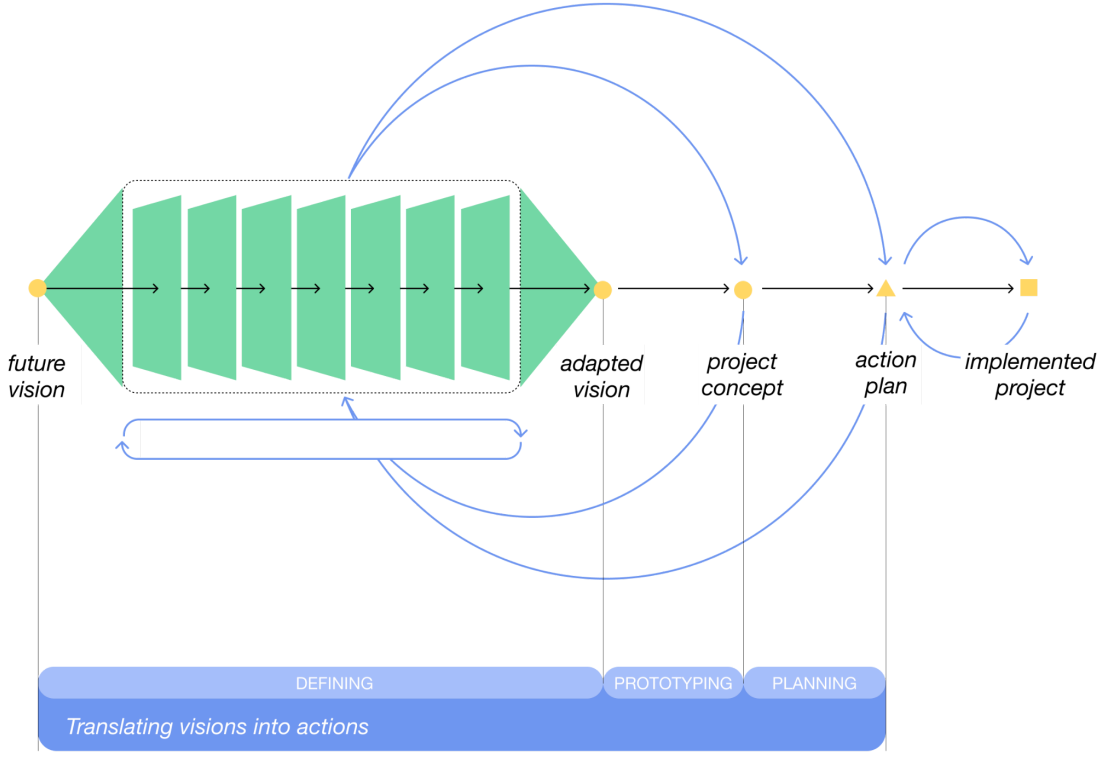


Figure 26. Preliminary Lenses Framework's structure

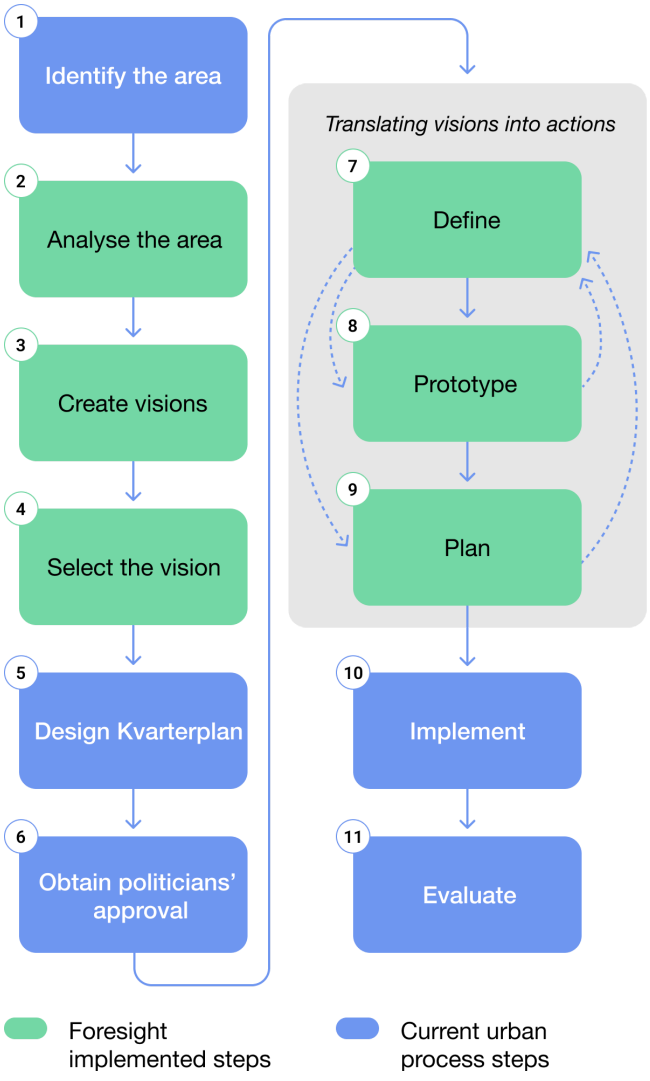


Figure 27. Overview of the Lenses framework in the implemented urban renewal process

4.3.5 Benchmarking

As part of the process of elaborating and defining our service proposal, we conducted a benchmarking analysis. By benchmarking, it is possible to evaluate the competitors by comparing performances (Stickdorn et al., 2018). Despite the fact that it is a tool usually used during the research phase, we used it to inspire our ideation session and understand how different projects are presented and delivered in the real life context.

As part of the benchmarking process, we aimed to learn how cities integrate city stakeholders at the local level to improve their urban planning strategies. Moreover, our goal was to better understand how the framework and process we were designing could be applied in a real-world context.

4.3.5.1 Set up

As a way to better organise and communicate the information collected, we created a template card (Figure 28) that contains: the name of the project, a descriptive keyword, a small description, a link to the source and a set of tags.

The tags are set on the following parameters: 1) type of participation, divided in online or presential participation; 2) project's horizon, meaning if the project is oriented to a long or short term; 3) type of actors involved, if citizens or experts; 4) project's level, that can be on a city or a local plan. Additionally, projects are also distinguished according to the moment of the process they focus on. The identified moments are:

- through the entire process: citizens/stakeholders are engaged through the entire process proposed
- ideating: citizens/stakeholders are engaged to co-create ideas and projects
- mapping/analysing: collecting data about the area
- voting/giving input: citizens/stakeholders can give their feedback
- funding: collect money to start the project
- informing: local authorities inform citizens/stakeholders about activities
- testing: involve citizens/stakeholders to test the idea

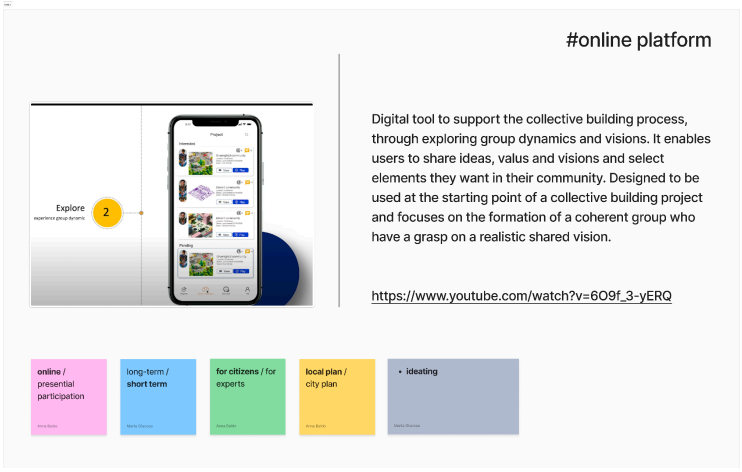


Figure 28. Benchmarking template card

4.3.5.2 Analysis

From the sixteen cases collected (see Appendix F), we were able to label and categorise different types of citizens participation formats, in order to scope our spectrum of possibilities and then proceed with designing our own service.

From the selection of examples, we identified four main participation formats: 1) online platforms, digital spaces which allow citizens/stakeholders to interact and navigate through urban planning activities; 2) hubs, public spaces that bring neighbourhood groups together to offer a range of activities, programs and services; 3) civic games, physical/online games which use gamification to include citizens; 4) toolkits/processes, providing step-by-step guidance and localised resources for supporting local/city activities. Once these four categories were identified, we decided to use them as a basis for constructing a matrix to be used to analyse the case studies.

The arrangement of the case studies on the matrix immediately revealed new clusterings and insights (Figure 29). The first thing we noticed was that online platforms are mainly used in two ways: the first is to inform citizens by involving them in the project only to give an evaluation, while the second gives a real-time overview of the project and involves citizens in the various steps of the urban process. The latter modality, as the toolkit/process category, presents methods to empower citizens and stakeholders to develop new projects. We also discovered that civic games are used primarily to stimulate citizen/stakeholder creativity and imagination, while hubs are used mainly to build community on a local scale.

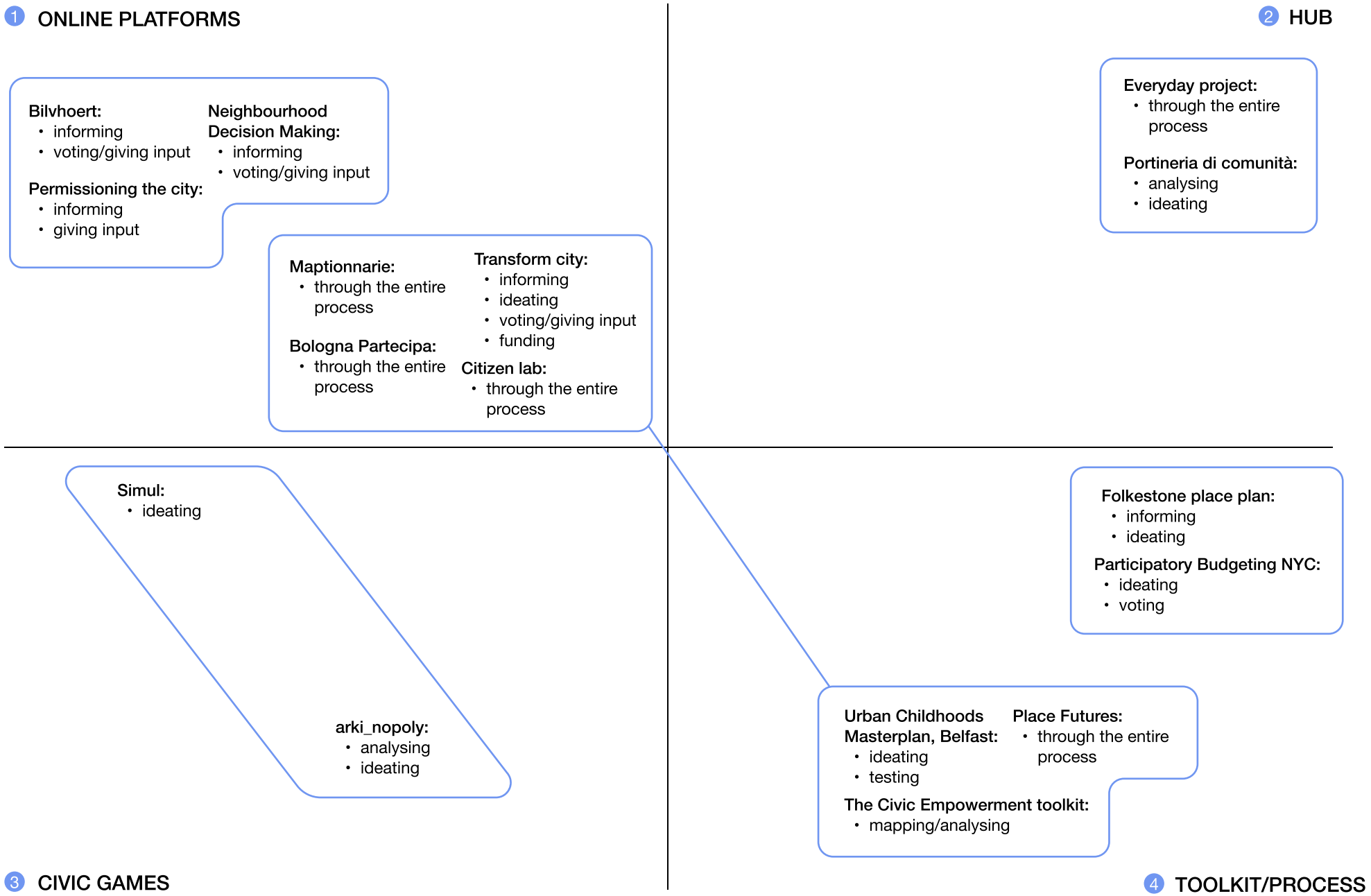


Figure 29. Benchmarking matrix

4.3.6 Ideation Session: What if…

Similar to the approach taken during the benchmarking, the focus of the ideation session was to understand how the process and framework under development might be applied and used in our service.

The ideation session was kicked off with a free and unconstrained brainstorming to ideate potential structures of our service. Using the question "What if our service...", we tried to write as many ideas as possible within 10 minutes and then clustered the similar ones into groups.

4.3.6.1 Results

The results of the brainstorming (see Appendix G) were then clustered into seven groups, following a logic of similarity in the concept, that will be presented next according to this categorisation.

The clusters were: nr. 1 “a series of online games/activities, that urban planners can use to involve citizens and collect data”; nr. 2 “a online dashboard that urban planners use to share info and ask for citizens engagement when needed”; nr. 3 “a management platform/framework for urban planners”; nr. 4 “a network of hubs aiming at improving their neighbourhoods”; nr. 5 “a game where citizens kickstart a project and then find experts to help them”; nr. 6 “an internal game for urban planners which help the them to play out with the lenses”; nr. 7 “a series of workshop tailored according to different age groups”.

4.3.6.1 Reflections

When reflecting on this ideation session, it is important to underline that doing this activity after benchmarking made it difficult to think beyond the ideas we previously selected. Both of us were biassed by the benchmarking activity, which was also reflected in our results.

After generating this content and before moving on to the next stage, we felt it necessary to assess whether the ideas that came up were meaningful. Therefore we reasoned together the potential of each cluster and the decision fell on the need to deepen four of the clusters, leaving the other three behind. The decision was therefore taken to exclude idea nr.5 because it was overly citizen-oriented and did not place urban planners at the focus, as required by the project brief. The same also applies to ideas nr.6 and nr.7 which were too specific and did not take into account the whole process.

4.3.7 Ideation Session: 5Ws and 1H

In order to transform the selected cluster groups into more concrete ideas, we applied the 5W and 1H framework. The 5Ws and 1H framework is a popular information-gathering and problem-solving tool. This framework comprises six questions, including Who, What, When, Where, Why, and How (Radom, 2017) and was used by each of us for each of the clusters.

4.3.7.1 Results

Table 5. 5W1H for idea nr.1

NR.4	ANNA	MARTA
WHAT	A series of online games/activities, that urban planners can use to involve citizens and collect data	
WHERE	Online Mobile app	Online
WHO	Urban planners Citizens	Urban planners Citizens
WHEN	Defining and Prototyping phase	During collaborative steps of the process
WHY	To collect input and ideas from citizens, engaging them during the process	Participation is faster, controlled and easier to approach
HOW	When it is time to translate the lenses into action plan, urban planners can send online activities specific for each lens Citizens can interact in a playful way with each lens There is a section for the prototyping phase	Citizens register on the platform and are called to action when urban planners need it The platform is playful to facilitate the participation

Table 6. 5W1H for idea nr.2

NR.4	ANNA	MARTA
WHAT	An online dashboard that urban planners use to share info and ask for citizens engagement when needed	
WHERE	It is in the municipality offices for urban planners It results as a mobile app/newsletter for citizens	Online Plus an option to do the vision physically
WHO	Urban planners and city experts Citizens	Urban planners Citizens
WHEN	Defining phase	During collaborative steps of the process Visibility through the entire process
WHY	To collect as many inputs as possible regarding the lenses To contribute to the translation of the vision through each lens	Transparency (the real impact is visible) CItizens engagement (to collect data and input directly from the citizens)

HOW	Urban planners share the vision (created before?) and explain how the process works Urban planners ask for citizens' participation everytime they have to go through each lens Citizens can see the process and receive surveys/games/info/invitations based on the lenses that urban planners are analysing	On the website, there is a timeline highlighting the steps, objectives and status When needed, the platform shows how and where to give your inputs in specific moments of the process -> email/notifications to communicate it Participation is asked to collect data, visioning, analyse the lenses

Table 7. 5W1H for idea nr.3

NR.4	ANNA	MARTA
WHAT	A management platform/framework for urban planners	
WHERE	Online	Online
WHO	Urban planners City experts	Urban planners
WHEN	Through the entire process	Through the entire process

WHY	To have an online place where there are all the steps, the tools, the framework needed to include long-term thinking into the urban renewal process	To improve long term considerations and facilitate ongoing implementation
HOW	There are different sections identified as the main steps of the process. For each of those “areas'' urban planners and relevant city stakeholders can find info, add tasks, find tools, collect data for the process	The platform is the urban planners’ workspace and gives an overview of the project and guidelines for all the steps. It is also a storage space for all projects and data. Can it be shareable with citizens?

Table 8. 5W1H for idea nr.4

NR.4	ANNA	MARTA
WHAT	A network of hubs aiming at improving their neighbourhoods	
WHERE	In the different neighbourhoods of Copenhagen, small cosy places	Hub’s space
WHO	Urban planners	Citizens and neighbourhood

	City experts Hub keepers (people in charge of the space)	representatives Urban planners/municipality as a coordinator
WHEN	Through the entire process	During collaborative steps of the process
WHY	To have a physical place where citizens and urban planners can meet and discuss about visions and their realisations The hubs can become innovation urban labs	More easily involve citizens (the call comes from a closer place)
HOW	“Open call” for the citizens in the area Workshops/civic meetings/ activities Publications of the annual reports based on the year of experimentation	Each neighbourhood has their own hub, a space to foster a sense of community When the municipality wants to start a project, it activates an hub and invites them for specific activities The hub is guided by representatives but invites all the citizens to participate Representatives collects data about area and signals of change on going

4.3.7.2 Reflections

Both idea nr.1 and idea nr.2 share similarities, operating on dual levels: the citizen level and the urban planner level, aligning with the requirements outlined in the design brief. Moreover, they maintain usability throughout the entire process and cater to specific steps while enhancing civic participation. We considered idea nr.3 as a potential starting point for developing a service but it presents a lack of citizens engagement, which is present in the current process and according to the design brief needs to be considered. On the other hand, Idea nr.4 was considered as the weakest one since it does not consider the entire planning process but only focuses on a touchpoint.

4.3.8 Choosing a Final Concept

Based on the reflections made on the previous activity (see section 4.3.7.2), we finally decided on the project's final concept and detailed it using the 5W and 1H framework.

Afterwards, it was necessary to better delineate the service according to the design brief of the project. In this regard, the impact table (Table 10) of our service was used (see section 4.2.6) to understand how the service might respond to the needs and desires of our target groups and the overall desired impact.

Table 9. 5W1H for the final concept

WHAT	An online platform that urban planners use to communicate their process and engage with citizen engagement when needed.
WHERE	Online
WHO	Urban Planners Citizens
WHEN	Urban Planners: throughout the entire process Citizens: visibility throughout the entire process and active participation when needed
WHY	To do long-term oriented urban planning To make citizens engagement easier, faster and more transparent To support urban planners in easily collecting data and input directly from the citizens
HOW	The process is an implemented urban renewal process that includes long term considerations and citizens' visions'. When needed, the platform shows how and where to give your inputs in specific moments of the process (using email/notifications to communicate it). Citizens can see the process and receive surveys/games/info/invitations based on the step that urban planners are analysing.

ACTORS	PAINPOINTS			WISHES		IMPACT OF OUR SERVICE		
Urban renewal planners	have long term considerations in the process	facilitate / enable citizens to be part of the process	expand the level and the target of participation	create feasible and resilient outputs		system perspective and on going implemenation		
	implementing foresight in three selected step of the existing process	participation is guided through a platform which propose participative tools	when participation is needed, urban planners ask for help	use of lenses, prototyping and ongoing iteration		system perspective (lenses) and on going iteration		
Citizens	time costraints and balancing prorities	accessibility to info	feeling of low/ limited impact and older dominance	being part of the city visioning	being considered during the urban process	be included in shaping the future of the area	make futures more tangible to citizens	
	online engagement open to everybody (phisical partecipation only when needed)	process visibility on the platform platform can be used for everything	• process visibility on the platform • online participation is open to everybody	city visioning is a participatory step of the new process	citizens are asked for help in some of the steps	participation in specific steps of the service	prototype phase	visibility and transparency

Table 10. Impact table for the final concept.
Note: in the grey post-its it is written how the service addresses pain-points and wishes of both target groups.
In the right column, how the service would create the impact delineated previously is shown.

4.3.9 Co-creation and Validation with Service Walkthrough

After outlining the initial concept, the next step was to reach out to Andreas Klarlund, the urban renewal planner previously contacted, to advance in the design process.

4.3.9.1 Goals and structure

At this stage of the project, it had become necessary to validate the work done so far by checking the urban planners' level of understanding of our service. This involved assessing whether urban planners perceived the service as a viable implementation for their processes. Additionally, we aimed to identify any overlooked considerations or aspects relevant for the urban renewal process.

Furthermore, it was essential to engage with a potential urban planner, who would also serve as a user of the platform. Through this collaboration, we sought to co-create and delineate the service's touchpoints, as well as understand how the platform could be utilised at each stage of the process.

For these reasons, it was decided to use the time available with the urban planner to carry out a Service Walkthrough. This prototyping method makes it possible to gain feedback on a service idea during its early stages, by guiding users or experts through the envisioned experience (Service Design Tools, n.d.). The method was used to show the whole service journey in a relatively quick and inexpensive way (Blomkvist et al., 2012). In fact, the journey of the implemented urban process was visualised here on three A3 sheets in a clear and attractive way to guide the exercise (see Appendix H, Appendix H1, Appendix H2). For each step of the process there is a short description of the step and three questions to be answered concerning the actors to be involved, the touchpoints required to do so and the potential role of the platform. At a more detailed level, the Defining step was presented, in which the Lenses Framework is used. In fact, a brief explanation of the type of tools that could be used for each lens was also included. The template was accompanied by a list of possible tools that could be used as suggestions to answer the questions (see Figure 30). The list of the tools was outlined using the means of participation proposed by The Civic Empowerment toolkit (Ben Schouten et al., 2022), which was discovered during the benchmarking (see section 4.3.5), as an inspiration.

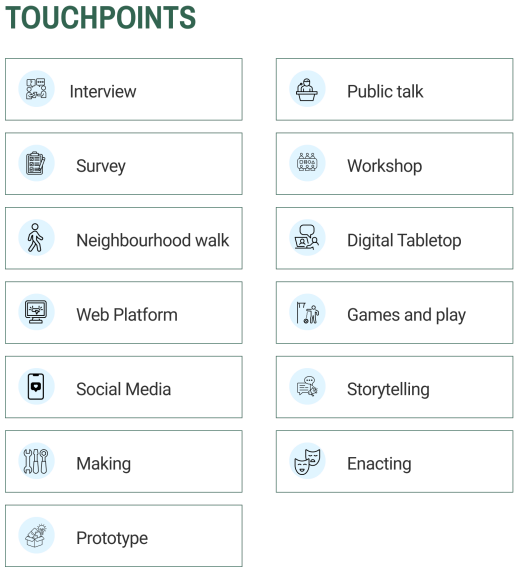


Figure 30. Service Walkthrough tools list

4.3.9.2 Results

During the session, Andreas Klarlund validated our concept by recognizing the opportunity to involve citizens and local stakeholders in his work processes. He highlighted the potential benefits of the Lenses Framework, emphasising its role in bridging the gap between citizens and professionals. In his view, the framework could be used for citizens to understand decisions and priorities and for urban planners to understand the citizens' point of view.

Furthermore, the discussion prompted reflection on three key topics raised by Andreas Klarlund. Firstly, he expressed enthusiasm for maximising online engagement to enhance participation, acknowledging the need for testing the effectiveness of this modality. Secondly, Andreas Klarlund discussed the need for a progression from broad invitations to increasingly focused groups, usually used in the urban renewal process. The participatory channels follow a repetitive process of opening, when new inputs and ideas need to be considered, and closing, when a decision needs to be made. Lastly, he proposed integrating a light version of the Lenses Framework after the visioning step, to ensure the vision is detailed and in-depth enough to create the Kvarterplan and present it to politicians.

4.3.9.3 Reflections

The Service Walkthrough tool proved to be valid providing insights into how the service was perceived and how it might perform from an urban planner perspective. Additionally, we could consider the coherence of the service, examining how its various components and stakeholders interrelate, and to some extent, the resultant experience.

Regarding the use of the template, the attractive and clean graphics made the understanding of the process much easier. More specifically, the touchpoint list provided Andreas with a variety of ideas, although it also limited his ability to think of alternatives.

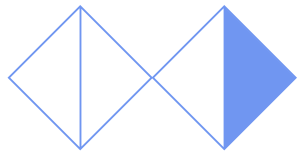
When talking about Foresight, Andreas found it easy to comprehend our proposed implementation even if he wasn't familiar with the discipline. This is due to the fact that the implementation closely mirrored his existing methods, leading to an easy recognition of them.

On the other hand, when discussing the platform, we realised that we could have facilitated the process better by providing examples or input. As an example, categorising possible uses for the platform beforehand and offering them as options during the exercise might have streamlined the process. However, Andreas demonstrated good adaptability in abstract thinking and intuition, making the activity successful.

The last reflection regards the challenge we encountered in reaching out to and collaborating with urban planners. Indeed, it would have been beneficial to engage Andreas Klarlund's colleagues in a structured workshop to gather diverse perspectives and avoid overly tailoring the project to his specific needs. Unfortunately, this has not been possible due to difficulties in contacting other urban planners within the Municipality.

Following the workshop, we incorporated the results and reflections into our service concept, which will be presented in the next chapter.

4.4 Deliver



In the last phase of the Double Diamond, the Deliver phase, a final concept is developed based on the insights gathered throughout the process and it is transformed into deliverables. A selection of representation methods is used to communicate the service on different levels and from different perspectives.

In this subchapter, the following sections will be discussed:
4.4.1 PlaceToBe: Final Concept
4.4.2 Process and Platform
4.4.3 The Lenses Framework
4.4.4 Pitch

4.4.1 PlaceToBe: Final Concept

The *PlaceToBe* service builds on the main insights from the Define phase that the urban renewal process utilised in the city of Copenhagen needs to take into account long-term considerations and signals of change, to make their projects more resilient. Moreover, throughout their process, urban planners need to be able to involve a wider group of citizens, allowing and facilitating their active participation.

The service's system comes to life through two main components: 1) a new urban renewal process, in which Foresight phases have been implemented; 2) the *PlaceToBe* platform, which facilitates interaction between urban planners and citizens, enhancing citizen participation.

The service is going to be explained as follows through a selection of Service Design tools and visualisations.

4.4.1.1 Stakeholder Map

The stakeholder map was selected as the first representation method to communicate the new service. This method was chosen because it provides a high-level overview of the actors and components in the system (Morelli and Tollestrup, 2007), without delving into the specific details of all service interactions.

The stakeholder map (Figure 31) remains rather similar to the one made in the Define phase, which considered the process and methods currently used by urban renewal planners (see section 4.2.2), as the stakeholders have not changed. Indeed, urban planners are still the most influential actors within the service, since they are the ones guiding the urban process. Politicians, landowners, and experts maintain their levels of influence, as the service did not aim to alter them. However, citizens, citizen representatives, and local stakeholders are now one level closer to the core of the map, indicating that their influence has been enhanced through the platform.

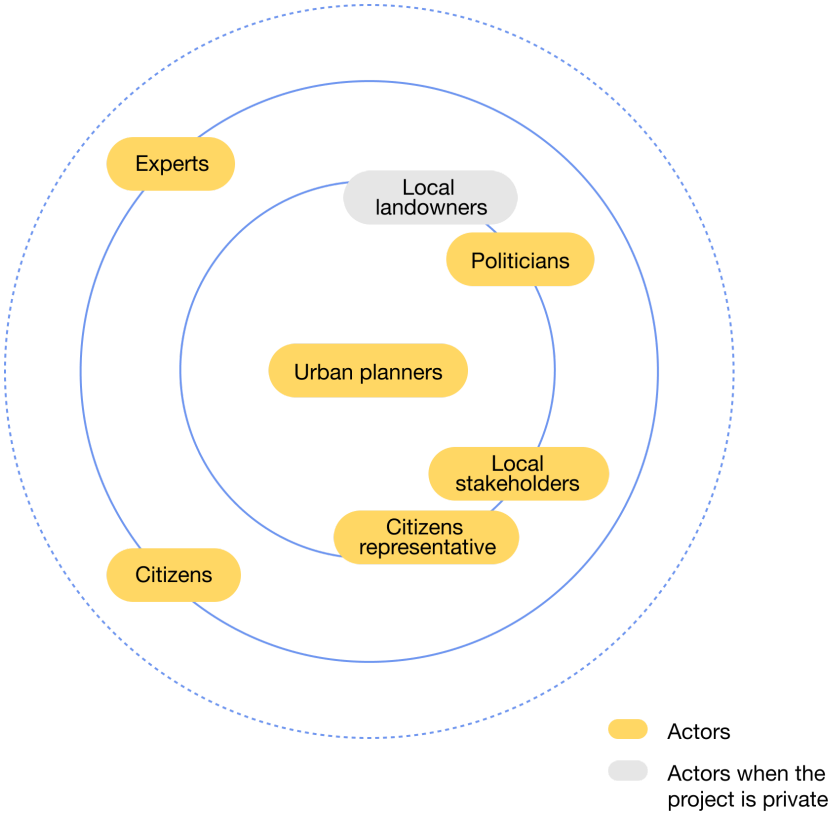


Figure 31. *PlaceToBe* Stakeholder Map

4.4.1.2 Value constellation

The second method for representing the new service is the Value Constellation Map (Figure 32). This tool is used to outline "[...] the network of actors and their relationships that jointly create an offering" (Patricio et al., 2011, p. 182) by identifying the values exchanged by the actors during the service (Patrtcio et al., 2011). In addition to displaying similar actors as shown in the Stakeholder Map, this method was chosen because it also includes detailed information about the relations between the actors and their mutual value exchange.

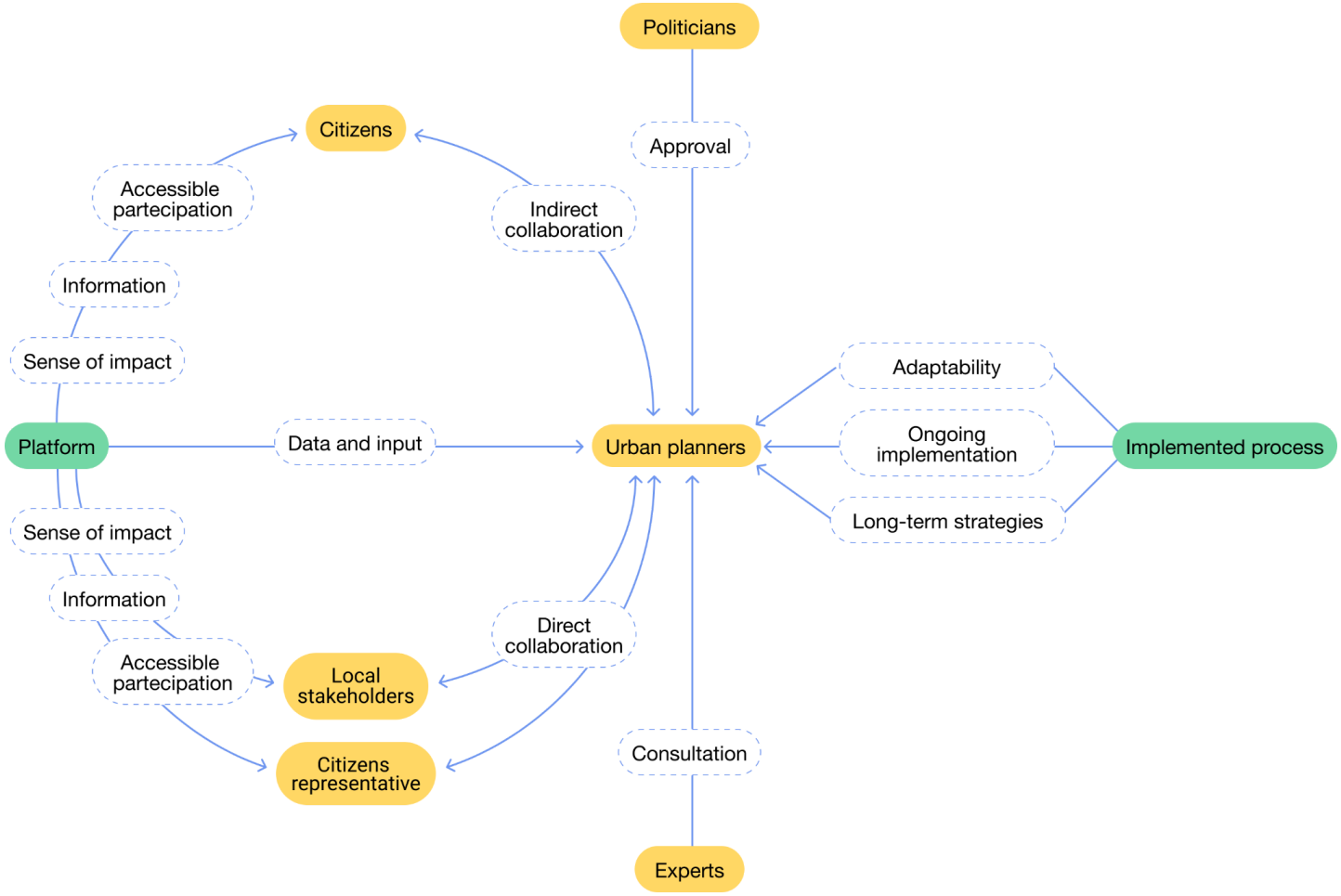


Figure 32. PlaceToBe Value Constellation

4.4.2 Process and Platform

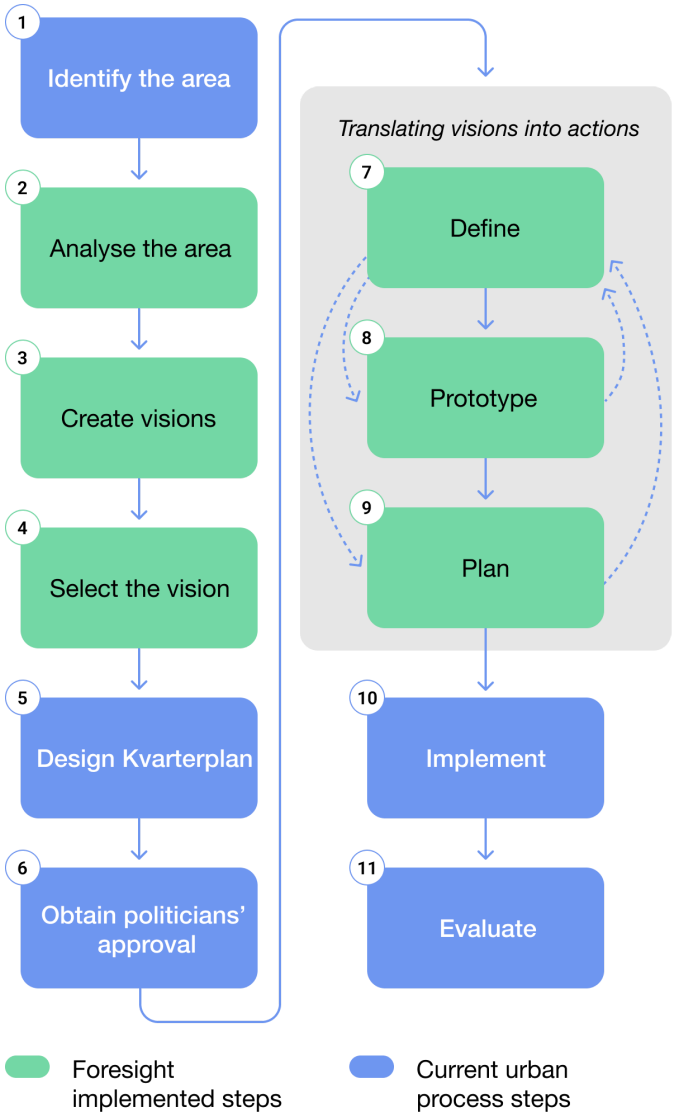


Figure 33. *PlaceToBe* Steps Overview

The service follows an eleven-steps process that guides urban planners from identifying an area needing renewal to the implementation and evaluation phase. This process closely mirrors the one currently used by the urban renewal department, with implementations only in the areas identified in section 4.2.3 to integrate Foresight methods.

4.4.2.1 Concept model

To better communicate the new urban renewal process, we created a model outlining each step. A detailed description of each step will be provided in this section.

Starting with (1) *Identify the area* (Figure 34), urban planners begin an urban renewal project by researching different city areas and collecting citizens' inputs through the platform. Citizens can pinpoint areas needing renewal on a map, and this data is then analysed by the urban planners to determine which area to focus on.

The next step of the process is (2) *Analyse the area* (Figure 34), where urban planners familiarise themselves with the area and consider its future potential. This is achieved with the help of citizens, who share their knowledge and insights through the platform. More specifically, via online surveys or open forums citizens are invited to provide information about the area and identify future signals of change in their daily lives.

Moving forward is (3) *Create visions* (Figure 34), that is when future visions are created taking into account how the area may change in the next 5, 10, 20 years. This involves co-creating these visions with citizens through online games and activities.

STEPS	Identify the area	Analyse the area	Create visions	Select the vision	Design Kvarterplan	Obtain politicians' approval
Urban planners	• Research and citizens' input analysis • Identify the area	• Upload online activity • Result analysis	• Upload online activity • Result analysis	• Invite to participation • In-person workshop	• Kvarterplan preparation • Upload document on the platform	• Send Kvarterplan to approval
Citizens	• Online activty	• Online activty	• Online activty		• Follow the process	
Citizen repr. / Local stakeholders	• Online activty	• Online activty	• Online activty	• In-person workshop	• Follow the process	
Politicians						• Approval
Experts						

Figure 34. *PlaceToBe* Concept Model (1st part)

STEPS	Define	Prototype	Plan	Implement	Evaluate
 Urban planners	• Update online activity • Result analysis	• Update online activity • Result analysis and concept prototype	• Create a roadmap	• Implement	• Update online activity • Result analysis
 Citizens	• Online activty	• Online activty	• Follow the process	• Follow the process	• Online activty
 Citizen repr. / Local stakeholders	• Online activty	• Online activty	• Follow the process	• Follow the process	• Online activty
 Politicians	• Consultation				
 Experts	• Consultation			• Implement	

Figure 35. *PlaceToBe* Concept Model (2nd part)

Visions are then evaluated and one is selected in step (4) *Select the vision* (Figure 34). Urban planners invite citizen representatives and local stakeholders to an in-person workshop, which involves a dialogue about the visions and an analysis of the selected one using the Lenses Framework.

After analysing all the data gathered during the workshop, urban planners can proceed to draft and finalise the Kvarterplan in step (5) *Design Kvarterplan* (Figure 34).

The following step is (6) *Obtain politicians' approval* (Figure 34), during which the Kvarterplan is presented to the politicians to secure their approval.

At this stage of the process and after receiving the approval, the vision is translated into actions through the following three steps (Figure 35):

(7) *Define*, where the vision is analysed in depth through the Lenses Framework and transformed into an adapted vision. Activities are conducted online with the involvement of citizens and local stakeholders, while experts and politicians are consulted as needed.

(8) *Prototype*, where citizens and local stakeholders are invited in an online conversation to propose ideas and decide how to prototype the concept. This results in selecting an approach and then creating the prototype.

(9) *Plan*, where urban planners can finally create a roadmap for the project's future steps, after taking into account whether it is necessary to iterate the concept after prototyping.

Following that, in step (10) *Implement* (Figure 35), urban planners and experts carry out the project implementation. Throughout the implementation process, any enhancements made are communicated on the platform, ensuring citizens and local stakeholders are continually informed.

Lastly, in step (11) *Evaluate* (Figure 35), urban planners invite citizens and local stakeholders to reflect on the value and impact created by the project through the platform.

4.4.2.2 Touchpoint and Participation

Throughout the process, touchpoints primarily occur online to enhance participation and broaden reach. However, a few steps necessitate in-person interactions with a smaller group, consisting of citizens representatives, to facilitate discussions and decision-making, such as the workshop for selecting the vision. Despite this, the platform is still used to invite participants to these activities. This approach enables the opening and closing of participation levels throughout the process (Figure 36).

4.4.2.3 Sitemap

In order to show how the *PlaceToBe* platform can support the process, and more specifically facilitate the citizens' participation, a sitemap has been designed. A sitemap is a visual tool that organises a website's content and structure (Soegaard, 2024). Indeed, we used it to create a first draft of how the platform might appear and be structured, and to identify possible gaps in its use.

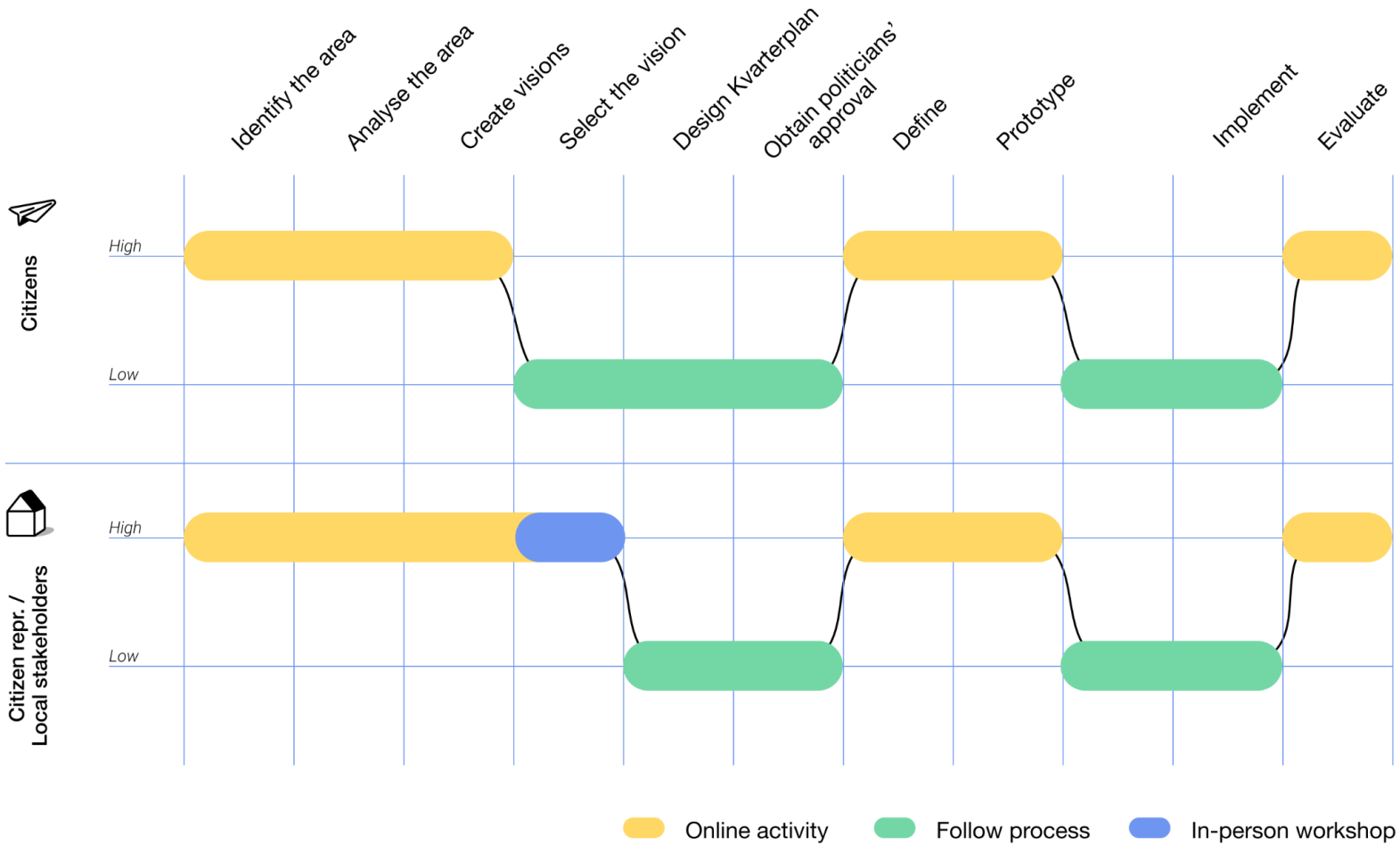


Figure 36. Participation level throughout the process

The sitemap shows how each section is broken down into further detailed pages. In addition, it indicates where modal interactions take place, such as when a user logs in.

The sitemap has been divided into 3 parts:

1) *General Sitemap* (Figure 37): it displays the visible and accessible sections of the platform before logging in. These sections include: an about page, project overviews of ongoing projects, and a page dedicated to the news about the service. The content primarily serves to inform users about what PlaceToBe is and how it works.

2) *Citizens Sitemap* (Figure 38): it displays all the sections visible to users who have subscribed to the platform as citizens. This type of access provides users with the ability to report areas that need renewal through the *My Ideas* section and actively participate in projects they have joined. In fact, users can view all the details of their ongoing projects and participate in open activities.

3) *Urban Planners Sitemap* (Figure 39): it displays all the sections visible to users who have subscribed to the platform as urban planners. This access level enables users to manage ongoing projects, update them, upload necessary activities based on the step, and view results through a dashboard.

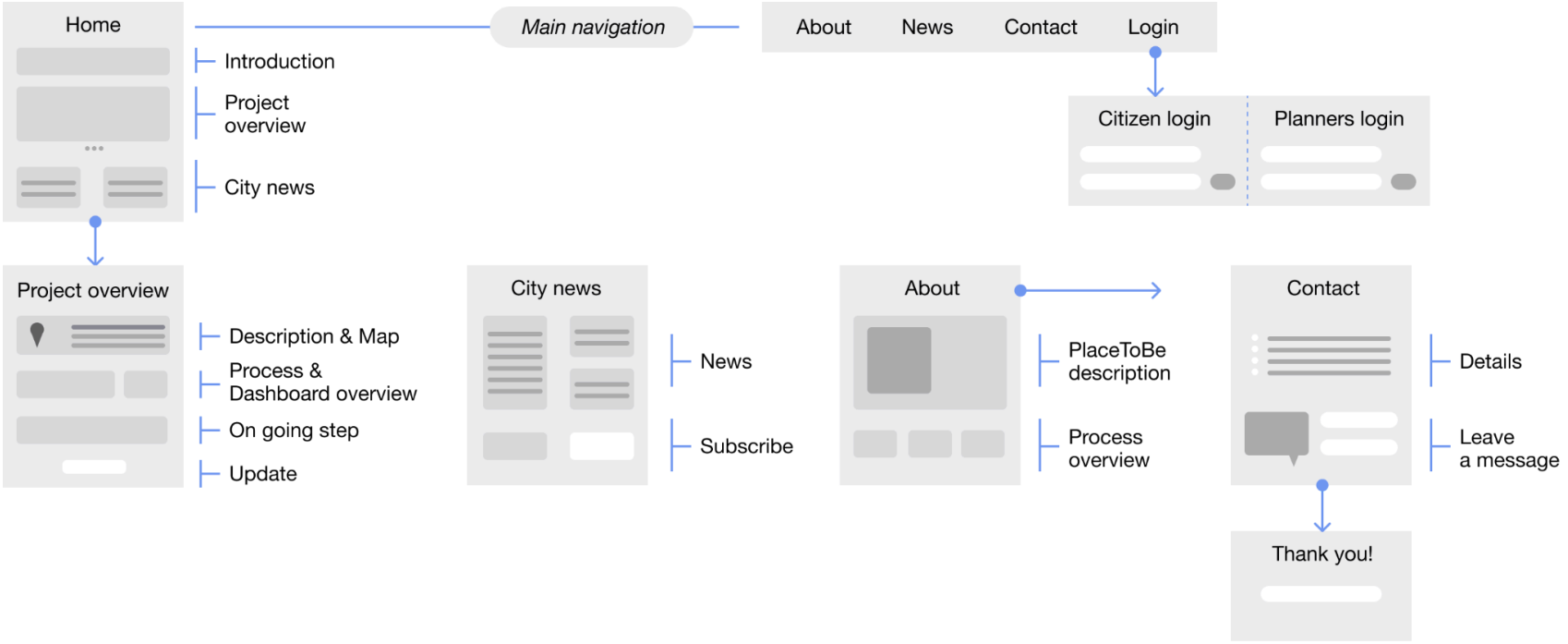


Figure 37. General Sitemap

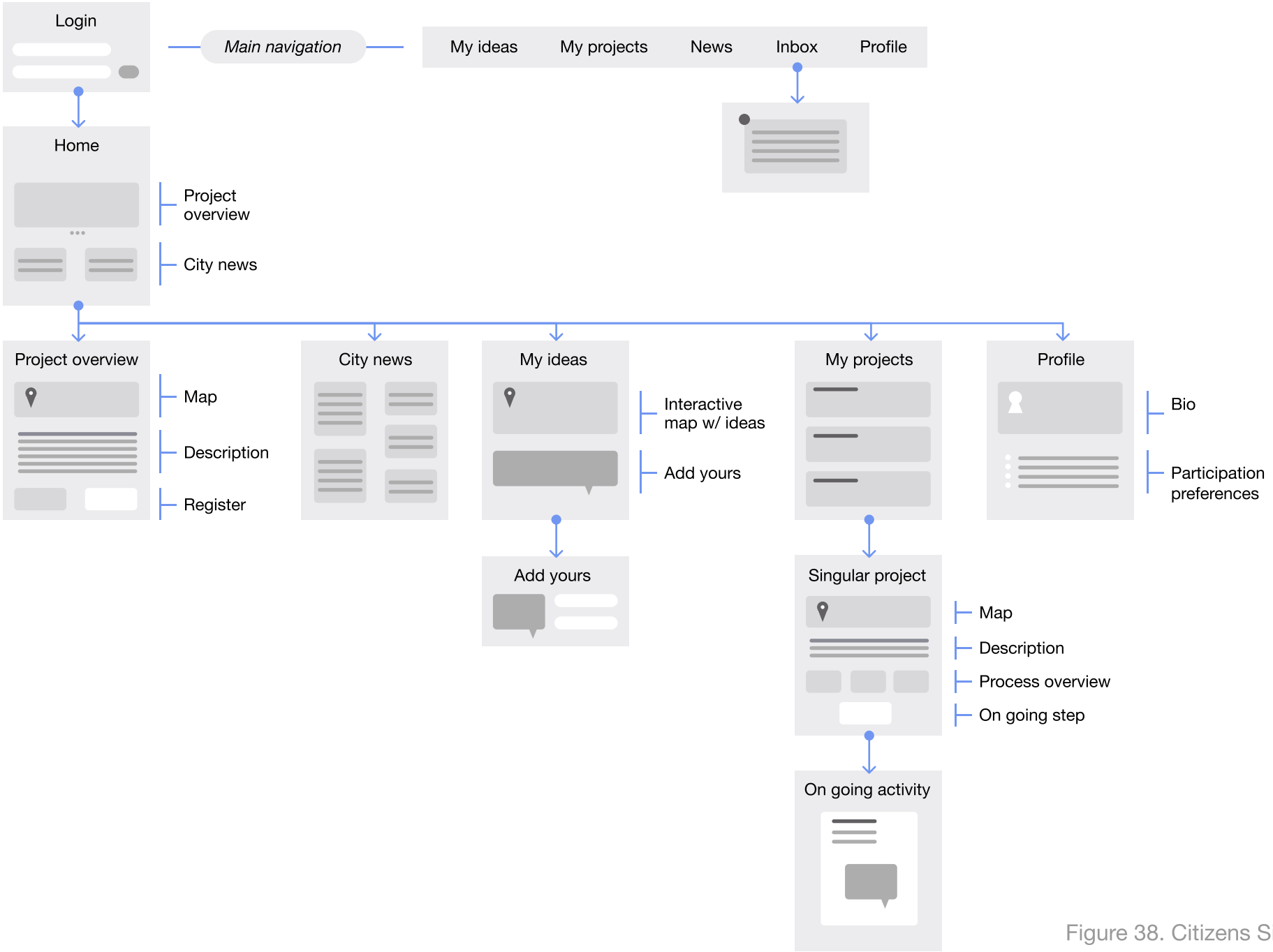


Figure 38. Citizens Sitemap

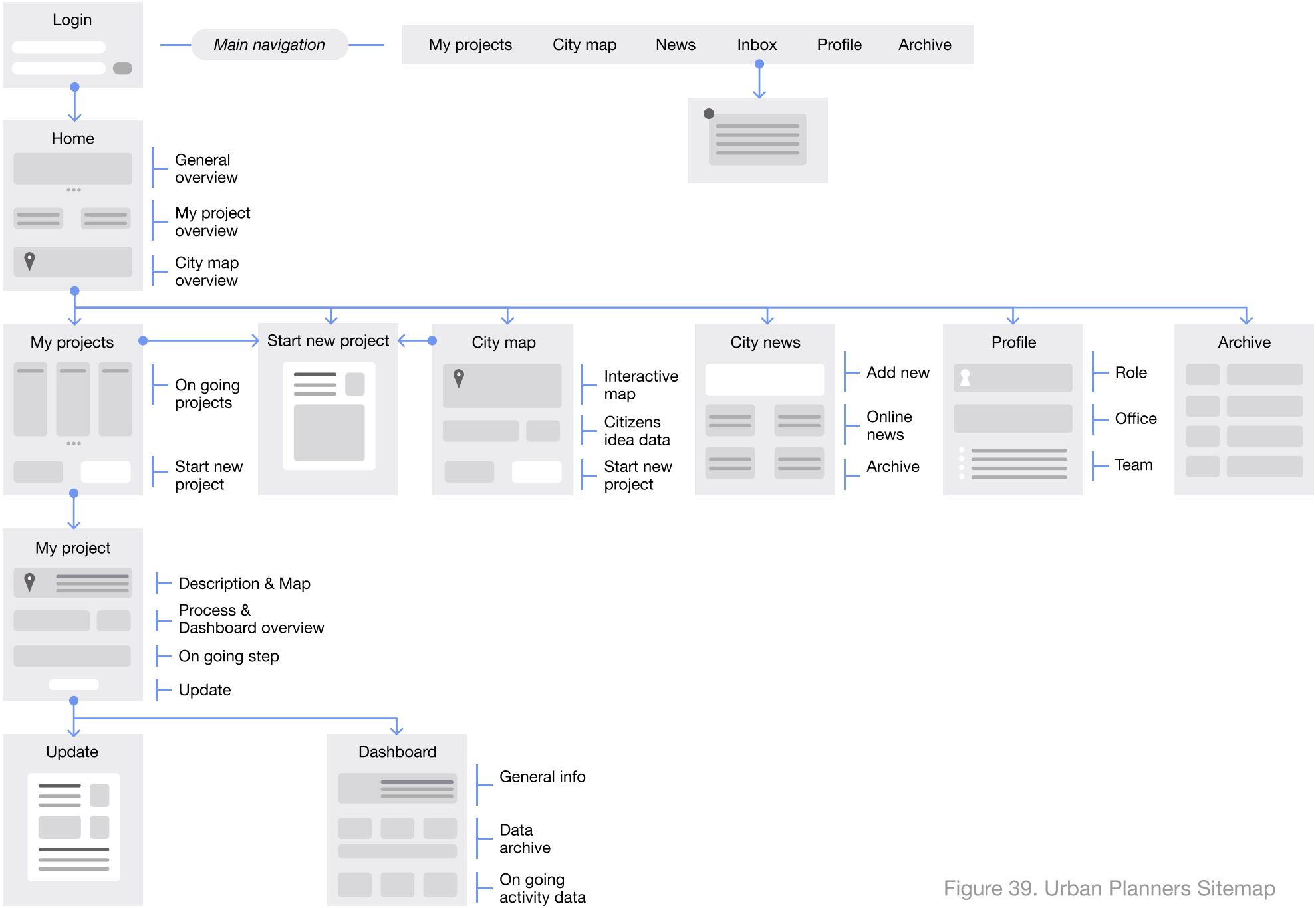


Figure 39. Urban Planners Sitemap

4.4.3 The Lenses Framework

The Lenses Framework is a tool developed to address the research question of this thesis, understood as a set of thematic layers through which the vision can be analysed and concretised (see section 4.3.4.1). It has been implemented in two phases of the new urban renewal process: first, as a method to explore and choose which vision to proceed with in the process (step 4), and second, to define the vision making it more concrete and turning it into a project concept (step 7) (see section 4.4.2.1).

4.4.3.1 Use Case Blueprint

In order to visualise and communicate clearly how the Lenses Framework works, a use case service blueprint was developed (Figure 41). A service blueprint shows all actors, actions and touch points within a service delivery process, both above and below the line of visibility. As a use case blueprint, the actions assume the point-of-view of a chosen user cycle (Bitner et al., 2008; van Dam et al., 2021).

In our case, the map assumes the citizen perspective, in order to better communicate how the platform enhances citizens' participation. Therefore, the use case perspective considers Thomas, a young father

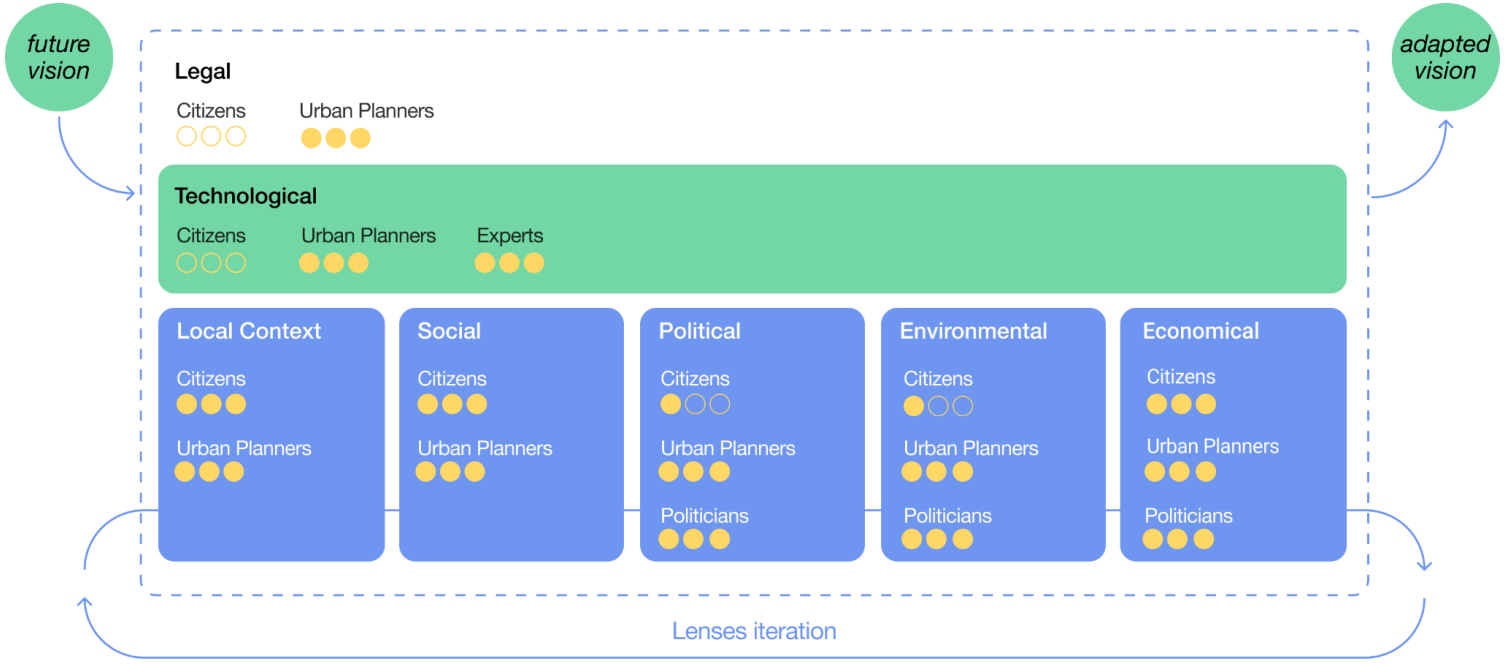


Figure 40. The Lenses Framework
Note: the yellow dotes indicate the level of participation of the actors.

living in Nørrebro, citizen and user of the platform. The sequence of actions, which goes from left to right following the arrows, shows on frontstage and backstage level how the service works.

We set some pre-conditions that will introduce the sequence of actions presented in the blueprint. Those are as follows:

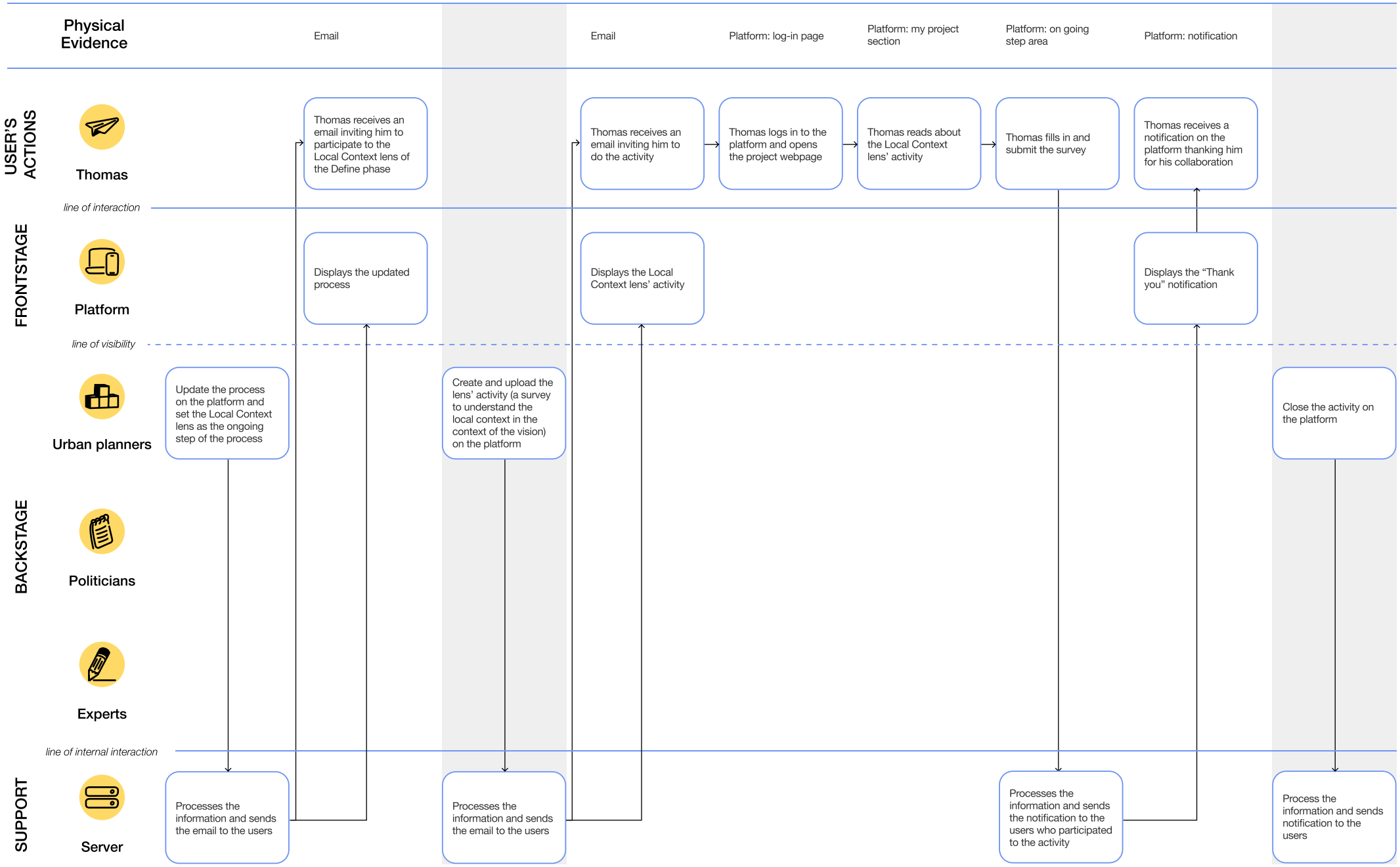
- Thomas has already signed up on the platform but not as a citizen representative
- The other actors are already signed up on the platform
- Citizens and citizens representatives have already followed and been part of the previous steps of the process
- A vision has been chosen and the Kvarterplan has been approved by politicians
- The citizens representatives and Local stakeholders participate in the same online activities of Thomas

Due to the complexity and the length of the blueprint, only the Local Context Lens is shown as follows as an example of the use of the Lenses Framework. The entire blueprint can be found in the Appendix I.

Figure 41. Use case blueprint (2 following pages)

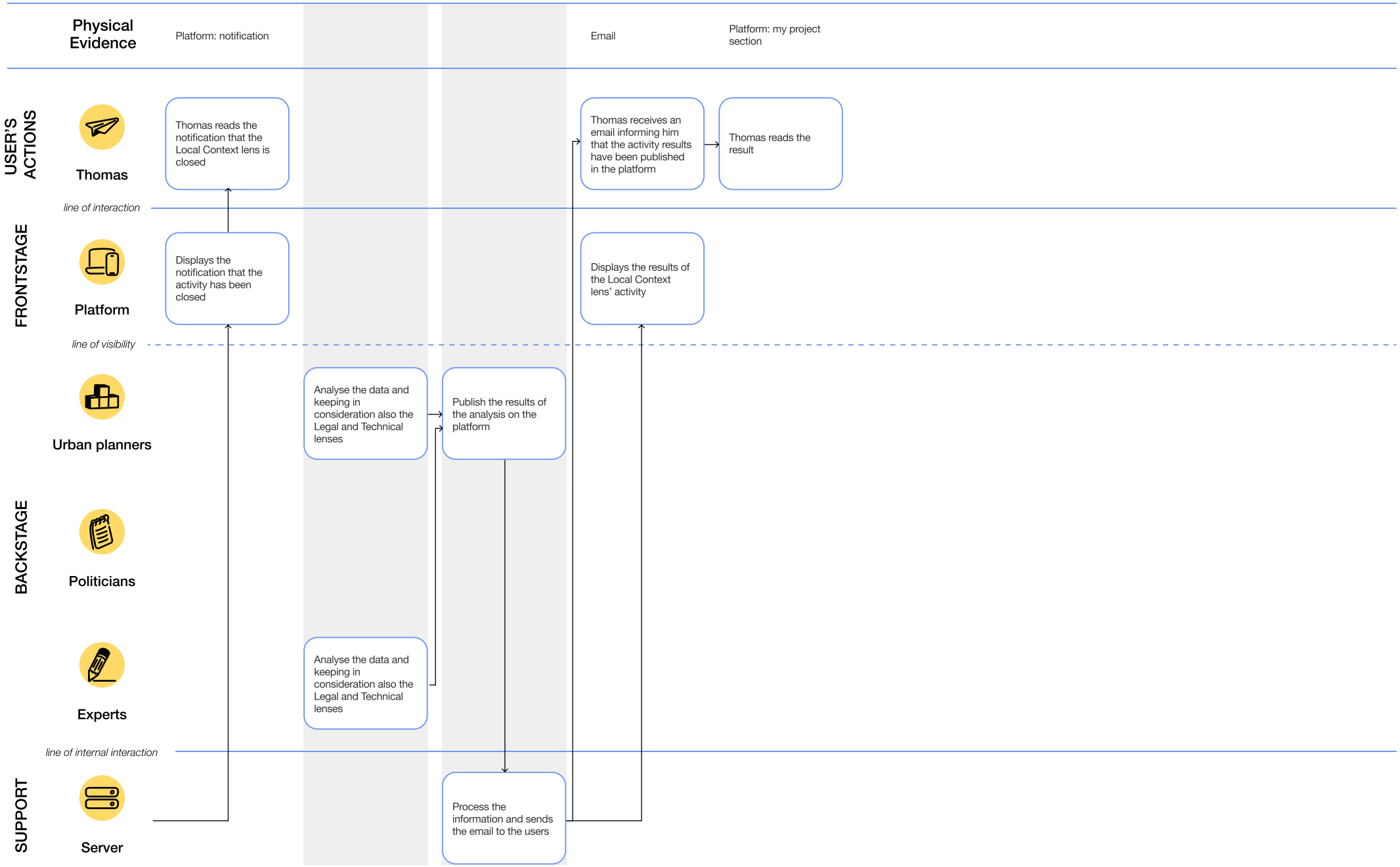
LOCAL CONTEXT LENS 1/2

Duration: 2-5 weeks



LOCAL CONTEXT LENS 2/2

Duration: 2-5 weeks



4.4.4 Pitch

As a final step in the design process, a slide presentation was created to be used as a pitch (see Appendix L) and to present the final service concept to Andreas Klarlund.

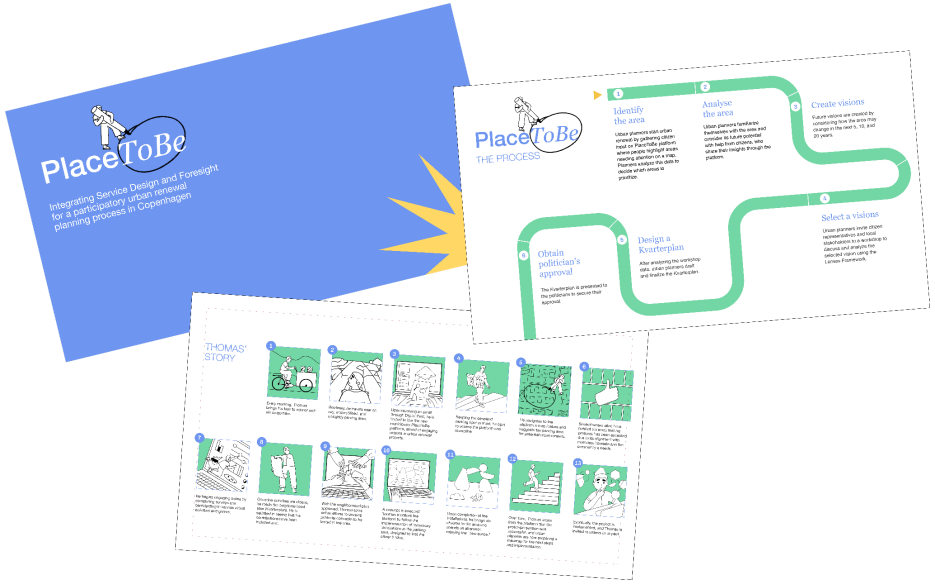


Figure 42. Some slides from the pitch presentation

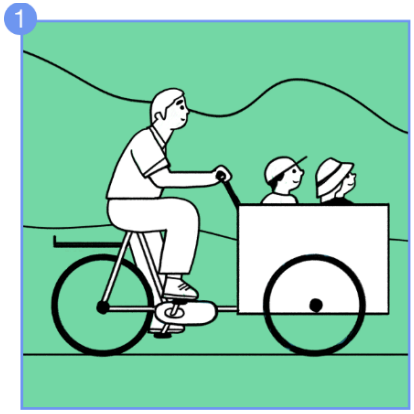
Some of the tools and visualisations shown within the current chapter, the Deliver chapter, are used in the pitch. Specifically, the following are shown: a lighter version of the value constellation, a process map and the Lenses Framework.

We chose not to include more complex tools, such as the blueprint, due to the concise nature of the presentation. Instead, we incorporated a Storyboard to enhance the narration with storytelling elements.

4.4.4.1 Storyboard

A storyboard (Figure 43, Figure 44) is a way to communicate a story through images displayed in sequence (Stickdorn et al., 2018). We opted for this approach to illustrate how the service operates from the perspective of a citizen. Specifically, we utilised it to depict a particular scenario involving Thomas, a young father living in Nørrebro with his wife and two children. He works from 9 to 5 and has limited free time, but is deeply devoted to his children's well-being and future aspirations.

1



Every morning, Thomas brings his kids to school with his cargo bike.

2

Routinely, he travels near an old, underutilised, and unsightly parking area.

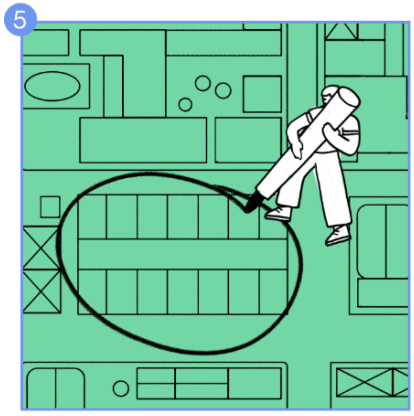
3

Upon receiving an email through Digital Post, he is invited to join the municipality's new PlaceToBe platform, aimed at engaging citizens in urban renewal projects.

4

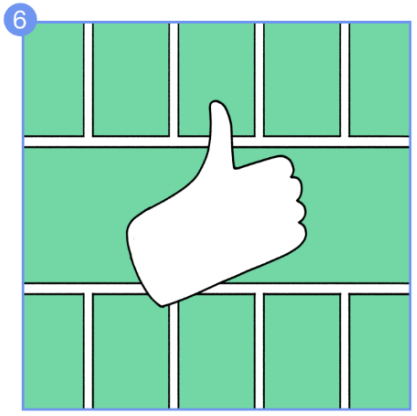
Keeping the despised parking spot in mind, he opts to access the platform and subscribe.

5



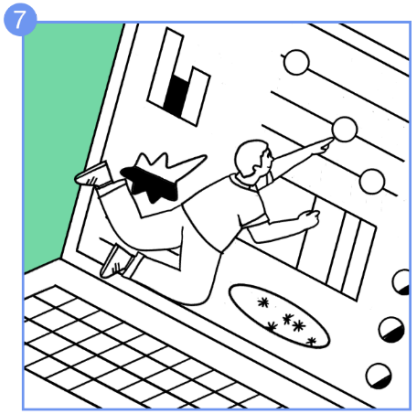
He navigates to the platform's map feature and suggests the parking area for potential urban renewal.

6



Several weeks later, he is notified via email that his proposal has been accepted due to its alignment with municipal interests and the community's needs.

7



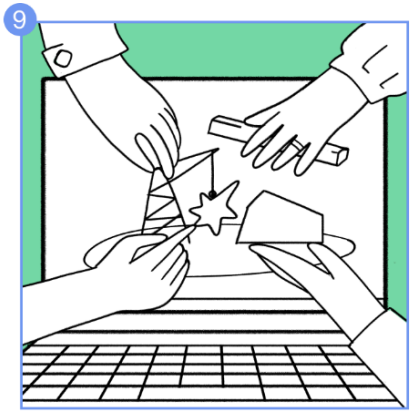
He begins engaging online by completing surveys and participating in various virtual activities and games.

Figure 43. Storyboard (1st part)

8

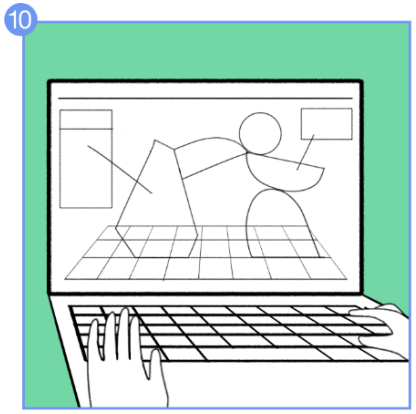
Once the activities are closed, he reads the neighbourhood plan (Kvarterplan). He is satisfied in seeing that his contributions have been included in it.

9



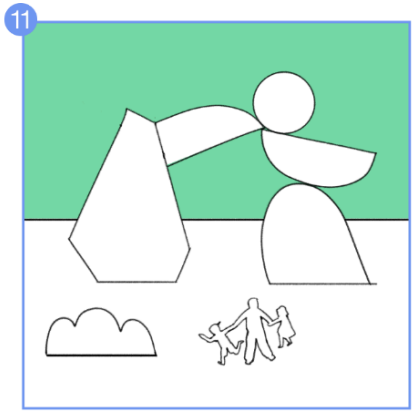
With the neighborhood plan approved, Thomas joins online efforts to develop potential concepts to be tested in the area.

10



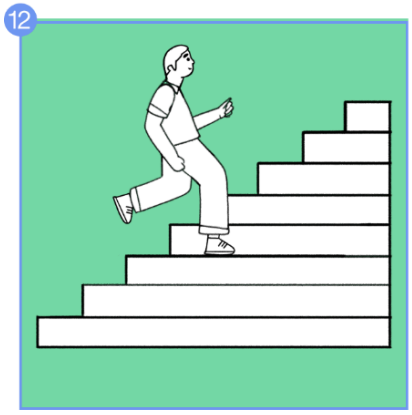
A concept is selected! Thomas monitors the platform to follow the implementation of temporary installations in the parking area, designed to test the citizen's idea.

11



Upon completion of the installations, he brings his children to the area and spends an afternoon enjoying the "new space."

12



Over time, Thomas learns from the platform that the prototype session was successful, and urban planners are now preparing a roadmap for the next steps and implementation.

13

Eventually, the project is implemented, and Thomas is invited to assess its impact.

Figure 44. Storyboard (2nd part)

Discussion

5.

This chapter presents a critical discussion of both the research question and the design process. It contains reflections on the next steps of the final service and on the learning objectives achieved during the thesis.

In this chapter, the following subchapters will be examined:

5.1 Reflecting on the Research Question

5.1.1 A Foresight and Service Design driven urban approach

The application of Foresight in the urban planning process can benefit not only the urban planners, but also the urban system itself. Indeed, the capacity for anticipation can support the creation of new scenarios for co-creating value between networks in complex service systems and investigating which relationships and processes may favour or hinder the transition towards sustainability (Villari, 2022).

Being part of such an ecosystem can provide urban planners with extensive data, new insights and contextual understanding (Dooghe et al. 2023). In this context, applying a Service Design approach to the urban context can contribute to defining desirable and feasible visions, offering a contribution to create operative perspectives for translating such visions in concrete design actions. (Morelli et al., 2020)

Therefore, we acknowledged that the incorporation of Service Design and Foresight in the urban renewal process is valuable in different ways. The Service Design perspective can provide urban planners with a deep understanding of citizens' needs and wants (Kulsbjerg Løgager et al., 2021). Meanwhile, the Foresight perspective offers insights into important indicators of how local, social, political, economic, technological, environmental, and legal contexts will unfold, and how to translate the visions of citizens into action plans.

5.1.2 A multistakeholder perspective

As discovered during the design process, the urban realm is a complex system in which different stakeholders are included. To navigate this complexity, we applied a Service Design mindset to address our research question. Indeed, Service Design is equipped with tools that allow meaningful exchanges across multiple means of communication and across diverse disciplines of expertise, generating an ideal environment for forming new living models responsive to the specific need of local neighbourhoods plans (Coutsoucos, 2023).

Thanks to its systemic dimension, as already explained by Villari (2022), Service Design supports sustainable transitions by enabling collective and collaborative processes. These processes help identify participatory development trajectories, stimulate conversations, and promote strategic relationships among different actors. This approach recognizes the systemic and complex dimensions, the transformative capacity of long-term outcomes, and the importance of involving diverse stakeholders in the design process (Villari, 2022). Villari (2022) also emphasises the importance of designing the enabling conditions—such as relationships, tools, practices, and activities—that allow stakeholders to play a proactive and positive role in the system and share a common development scenario.

This aligns with our findings in developing the Lenses Framework. In fact, we recognised that, in an urban context, it is essential to create a system that fosters a common understanding among different stakeholders about the impacts of systemic transformation. This understanding should include how to measure the environmental,

social, and economic repercussions of the service system and its solutions over time (Villari, 2022). Additionally, we identified the need to consider not only environmental, social, and economic in these areas but also the local context, as well as political, technical, and legal aspects.

5.1.3 A systemic approach in the urban context

Upon collecting the insight “There is no future thinking without system thinking” during an expert interview (see section 4.2.14), we began investigating the key elements urban planners need to consider when translating citizens' visions into action plans for renewing neighbourhoods. Our theoretical foundation for this insight comes from Lin and Villari (2023), who explained that future thinking involves systems thinking. This approach considers not only (the micro or meso) factors directly related to the current service context but also the (macro) factors influencing the service ecosystems that shape people's lives, making future thinking challenging (Lin and Villari, 2023).

Understanding the situation and context is crucial for achieving a well-functioning result (Dooghe et al., 2023). This approach guided our development of the implemented urban renewal process for the Copenhagen Municipality. To facilitate this, we propose the Lenses Framework, a set of thematic layers through which a vision can be analysed and translated into an action plan.

Through our research, we also recognised the importance of continuous and iterative implementation in urban processes. This approach addresses the demand for unified direction and vision by incorporating diverse perspectives and disciplines, as well as implementing results while engaging stakeholders through participation (Wilhelmer, 2016). Therefore, we incorporated an iteration in the process to allow for experimentation and to develop a collective understanding of actual needs before progressing towards a result (Dooghe et al., 2023). Specifically, ongoing iteration is proposed at three levels: between the lenses to ensure all considerations in translating the vision are taken, between prototyping and the lenses to check alignment of the project concept, and between the action plan and the lenses to ensure the plan's alignment. After the action plan, project implementation begins but still requires continuous iteration with the action plan to promote long-term adaptability.

In conclusion, the Lenses Framework can be viewed as a systemic approach since multiple interconnected aspects are incorporated into the planning process, including local context, social, political, economic, technological, and legal factors. As a result of analysing these diverse but interrelated elements, urban planners are able to develop comprehensive action plans that address the complexity of real-world urban systems. Through this holistic approach, the diverse needs and influences shaping neighbourhoods are taken into account, which in turn lead to the development of more sustainable, inclusive, and effective urban renewal initiatives.

5.2 Reflecting on the Design Process

5.2.1 Design Brief

Our choice of the design brief was guided by the data collected during the initial stages of the design process. Consequently, we opted to implement the urban renewal process of Copenhagen, as we had the chance to get in contact with Andreas Klarlund and gathered sufficient information from our interview. Indeed, the decision was based on the data's availability and relevance. While we might have developed our service in various contexts, such as different cities or regions, we felt that focusing on Copenhagen gave the most relevant insights given our resources and the scope of the data we had gathered, as we are also Copenhagen citizens. This approach provided that our design process was based on an extensive understanding of the local urban renewal dynamics, allowing us to develop a more specialised and successful solution.

5.2.2 Data Collection

Despite our best efforts, we were only able to collect data from a small percentage of citizens. This limited our ability to base the next phases of the design process on a comprehensive dataset. In a real-world context, we should have spent more time recruiting participants and gathering data from citizens, involving them in the co-creation of specific aspects of the proposed service. However, due to the limitations discussed in previous chapters (see section 4.1.2, section 4.1.3, section 4.1.4), this was not possible. As a consequence, we acknowledge that the description of our target group (see section 4.2.5) could have been richer and more complete with additional data.

Similarly, our data on urban planners was limited. While our interview on the urban renewal process of Copenhagen was insightful, having more interviews with other urban planners would have provided a more comprehensive perspective on the urban planning process. Once again, due to time constraints and resource limitations (see section 3.3), we were unable to conduct additional interviews.

Finally, the amount of data collected was constrained by the available time for the project and the difficulty in contacting the necessary professionals. These limitations were known from the outset (see section 3.3), but we attempted to mitigate them by reaching out to as many experts as possible during the Discover phase and through different channels (LinkedIn, personal emails, through our network, etc.)

5.2.3 Process and Methodology

An important consideration in our design process pertains to the Discover phase, where defining the focus of our research was particularly challenging. This difficulty was partly due to our skills and competences; as service designers, acquiring knowledge in Foresight and urban planning—fields that were new to us—required significant time. Consequently, we had to rush the next phases of the Double Diamond framework to meet several University and personal deadlines. Additionally, we scheduled many interviews early on for the following months, which often led to last-minute adjustments and adaptations based on the type of meeting we had.

5.3 Next Steps and Future Research

The master's thesis should be regarded as a pilot study for further investigation, development and testing of a multitude of aspects.

5.3.1 Investigate all potential Foresight opportunity spaces in the urban renewal process

The first aspect that would need further research and testing is the use of Foresight through the entire urban renewal process. After identifying three potential opportunity spaces (see section 4.2.4) where Foresight could be implemented in Copenhagen's urban renewal process, we chose to focus on just one, due to time constraints and the need to answer our research question. We provided only brief suggestions for how the other two identified steps might look after implementing Foresight.

Next, it is essential to investigate the actions and tools required to achieve the proposed goals. This involves researching tools for identifying future signals, which are crucial for helping urban planners analyse data and proactively consider future developments. Additionally, we need to experiment with methods for creating citizens' visions for their neighbourhoods to determine the most effective approaches for the context. This would allow us to test the Foresight steps within the urban renewal process, ensuring the plans align with both current and future needs and desires.

5.3.2 Future literacy for urban planners

Another aspect that needs to be considered is the level of Futures literacy among urban planners. Futures literacy, as defined by UNESCO (n.d.), helps individuals understand why and how we use the future to prepare, plan, and engage with the complexity and novelty of our societies. Enhancing this literacy among urban planners will enable them to incorporate long-term thinking into their processes, better anticipate citizens' needs and demands, and plan for a more sustainable future. This holistic view of the city allows for more accurate decision-making. Additionally, it equips urban planners to facilitate participatory Foresight processes with citizens, enabling their active involvement.

5.3.3 Reflection on the urban renewal process timeline

We recognise the importance of timing when translating citizens' ideals into concrete actions. Timing is critical to the successful implementation of long-term projects, ensuring they are carried out continuously and allowing for regular adjustments in response to future needs. However, accurately estimating the duration of these processes proved challenging. Due to the master's thesis's time constraints, we were unable to investigate this topic in great detail. Therefore, while we acknowledge the significance of timing, further research is needed to fully understand and optimise the temporal dynamics of converting citizen visions into urban development actions.

5.3.4 Testing the service

Real-world implementation is crucial and requires pilot testing to refine our approach and validate its effectiveness. Testing would allow us to make necessary adjustments based on practical feedback from the stakeholders involved. Ensuring effective communication between all stakeholders is essential to foster collaboration and alignment throughout the project.

Specifically, since we developed a platform for urban planners to engage citizens, it is necessary to test its wireframes and usability for both groups. This ensures the platform is user-friendly and its structure works effectively.

5.3.5 Service communication and advertisement

Due to time limitations, we did not focus on the pre-service aspect of our delivery. Therefore, it is necessary to investigate how to better communicate and engage stakeholders to participate in our service. Conducting user research on preferred communication methods and engagement strategies will be essential. The next step should then focus on implementing these findings.

5.3.6 Adaptability to different urban contexts

Our thesis project focused on a specific type of urban process, the urban renewal process in the city of Copenhagen. Future research might explore the adaptability of the process we developed to different urban contexts. This would involve customising strategies to address the unique needs and challenges of various processes and cities. Ensuring adaptability would create a robust, participatory urban planning process that leverages Foresight, effectively engages stakeholders and resonates with diverse urban environments.

5.4 Reflecting on the Learning Objectives

This master thesis allowed us to practise a methodological design approach to a relevant urban case study. We used both familiar and new methods throughout the project, showcasing our abilities in the Service Design field. Familiar methods helped us accelerate the process and increased our confidence in planning and executing the design process, while new methods expanded our skill set and experience as Service Designers.

As service designers, we utilised various tools and methods during the Double Diamond process, adapting them to our needs and objectives. These tools were familiar to us from previous university projects. Thus, this thesis demonstrated that we have acquired a deep understanding about how to use them, enabling us to navigate the design process independently and confidently for future personal projects.

Moreover, throughout the design process, we explored the value and necessity of stakeholder participation in urban contexts. This not only provided us with important findings for our project but also expanded our knowledge in urban planning and Foresight fields. We achieved this within the context of Copenhagen by enhancing the existing urban renewal service.

We met our personal objectives by exploring and navigating the topics chosen in the literature review and through our research process. This

significantly expanded our knowledge, providing valuable insights for potentially implementing our service in the future. Additionally, we successfully overcome various challenges related to project limitations during the design process, further strengthening our problem-solving skills.

Conclusion

6.

The accomplishments of this project as a whole are finally covered in this section.

6.1 Conclusion

In this thesis, the implementation of Service Design's systemic and participatory perspectives with Foresight methodologies has been utilised to translate visions of cities into action plans in the urban context. The research conducted led to the development of PlaceToBe, a service for the Copenhagen Municipality comprising two components. The first is a new urban renewal process that incorporates Foresight phases and integrates a Lenses Framework to help urban planners translate visions into actions. The second component is the PlaceToBe platform, a digital tool designed to facilitate citizen engagement throughout the renewal process.

For this thesis, a research-through-design approach was employed through the Double Diamond Framework. Following this methodology, preliminary research was established in the Discover phase, which was then followed by scoping down a new problem statement in the Define phase. Possible ideas were then explored in the Develop phase, culminating in the design of the final service for the urban planners in the Deliver phase.

It is important to note that our research identifies limitations and suggests areas for further investigation. Firstly, due to limited resources from the academic context, we could not recruit more experts from urban and Foresight fields, as well as citizens. This resulted in data collection from a small sample, impacting the final outcome of our service. Secondly, time constraints from personal and academic deadlines led us to focus only on certain steps of the urban renewal process.

Moving forward, the next steps of our research should explore all potential Foresight opportunity spaces in the urban renewal process, equipping urban planners with future literacy to better address the needs of future neighbourhoods. Additionally, the usability of the developed platform would need to be tested among urban planners and citizens. Lastly, since PlaceToBe was developed specifically for Copenhagen's urban planners, the adaptation of the service to other urban contexts could be further explored.

Despite these limitations and necessary steps for the future implementation of the service, our research revealed a number of interesting findings. Firstly, it has been highlighted the significance of adopting a systemic perspective when considering future visions. Additionally, it has been revealed that ongoing implementation through iterations enhances the resilience of outputs to future changes.

As such, the design process focused on implementing Foresight into the urban renewal process of Copenhagen, applying systemic and participatory perspectives derived from Service Design to effectively translate citizens' visions into actionable plans. To achieve this, the Lenses Framework, developed in this thesis, serves as a tool for urban planners to analyse visions across thematic layers, gathering data from relevant stakeholders on the local, social, political, environmental, economic, technological, and legal aspects.

Employing a systemic approach in Service Design generates many advantages for urban planners. This method provides a comprehensive and interdisciplinary approach, incorporating tangible and intangible solutions to tackle the intricate and multifaceted challenges posed by the future of cities. Additionally, implementing Foresight in specific

steps of the urban process provides valuable insights into significant indicators of how local, social, political, economic, technological, environmental, and legal contexts will evolve. Thus, the application of Foresight and Service Design in urban processes enable the translation of citizens' visions into actionable plans.

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VI. Appendix

Appendix A: Questionnaire survey (link)

Appendix A.1: Questionnaire survey answers (link)

Appendix B: Interview consent form

CONSENT FORM

Consent text
This is a request for your consent to process your personal data. The purpose of the processing is related to academic purposes, more specifically to integrate the data collected on the research phase of the Service-Systems Design Master Thesis' Project, undertaken by Anna Baldo and Marta Giacosa, from Aalborg University..

You consent to the processing of the following data about you: name, email, age, and workplace.

Marta Giacosa and Anna Baldo are the data controller of your data.

Your data will be stored securely, and we will solely use the data for the above purpose.
You always have the right to change your consent. If you wish to change your consent later on, you can write us an email to one of the following contacts:

> (Interviewer Student) annabaldo215@gmail.com; martagiacosa99@gmail.com

> (Project Supervisor, Luca) lsi@create.aau.dk

☐ I hereby consent to Anna Baldo and Marta Gaicosa processing my data in accordance with the above purpose and information.

Date:

Name

Signature

HOW WE PROCESS YOUR DATA

The data controller:

Anna Baldo
Marta Giacosa

Aalborg University Copenhagen
A. C. Meyers Vænge 15, 2450 København

We process the following personal data:

General personal data (see Article 6(1) (a))
(E.g. name, address, email, age, self-published data etc.)

How we store your data.
We will store your personal data for as long as necessary for the data processing purpose for which we are obtaining your consent and in accordance with the applicable legislation. We will then erase your personal data.

Your rights.
When we process your personal data, you have several rights under the General Data Protection Regulation. For example, you have a right to erasure and a right to data portability. In certain cases, you have a right of access, a right to rectification, a right to restriction of processing and a right to object to our processing of the personal data in question.

Be aware that you cannot withdraw your consent with retroactive effect.

Do you want to complain?

If you believe that we do not meet our responsibility or that we do not process your data according to the rules, you may lodge a complaint with the Danish Data Protection Agency at dt@datatilsynet.dk.
However, we encourage you also to contact us, as we want to do our utmost to accommodate your complaint.

Appendix B.1: Foresight experts interview script

Introduction:

For our thesis we are trying to understand “How can we integrate service design and foresight methods to translate visions into actions?” We're interested in learning more about your work in foresight and scenario planning.

Brief: How might we design a service for the City of Copenhagen to involve relevant stakeholders in a long-term city planning on a local level?

0. Could you please start by introducing yourself and your profession/role?

Understanding Their Process and Methodology:

1. Could you walk us through your typical **process** when working with foresight?

Criteria for Scenario Development:

2. What is a **scenario**? What is a **vision**? What is the difference between scenario and vision?
3. How do you **create** scenarios? Which methodologies or frameworks do you use?
4. Do you gather information and data to inform your scenarios? How?
5. Could you elaborate on how you determine the **plausibility** and **relevance** of each scenario?
6. How do you validate the **robustness** of your scenarios?

   Are there specific tools or techniques?

Transforming Scenarios into Strategies:

7. Could you tell us what happens after the **development** of a scenario/vision?
8. What are the main **criteria** you consider when creating strategies?
9. How do you transform scenarios into strategies? Do you use certain types of **methods** or tools? If so, could you describe it?
10. How do you ensure that strategies derived from scenarios are adaptable to **different possible futures**?
11. How does it work for public projects that involve a **wide public** like citizens?
12. Can you provide **examples** of how you have successfully translated scenarios into actionable strategies for clients or organizations?
13. What **challenges** do you typically encounter when moving from scenarios to strategies, and how do you address them?

Participation:

14. Can you tell us more about the **participatory** aspect of your foresight process, if you have it? In which **stages** do you usually co-create with your clients? What would be the case when working for **public** projects (for example, when involving citizens like our thesis)?
15. What **challenges** do you typically encounter in these situations?
16. What are the **things to keep in mind** when working with participatory foresight?

Closing:

17. Is there **anything else** you would like to add about your approach to foresight and scenario planning?
18. We are planning to do a workshop to o-create of the new ways to make the urban planning process within the city of Copenhagen more participatory and long-term oriented. Do you have any **advice**?

Appendix B.2: Strategy experts interview script

Introduction

Hello, and thank you for taking the time to speak with us today. We're interested in learning more about strategy development and how companies approach long-term visions. Could you please introduce yourself and briefly describe your role within your agency/studio/consultancy?

Question 1: Understanding Strategy Development Process and Methodology:

What are some key steps or stages in your strategy development process, from initial planning to execution?

What kind of methodology your company uses when working with clients on strategy development?

Question 2: Approach to Long-Term Visions:

1. How does your company approach the development of long-term visions for clients?

2. What factors do you consider when crafting long-term visions, and how do you ensure they align with the client's goals and objectives?

Question 3: Integrating Long-Term Visions into the Strategy Development Process:

1. How do you incorporate long-term visions into your strategy development process?

2. What tools, frameworks, or methods do you use to translate long-term visions into actionable strategies?

3. How do you ensure that long-term visions remain relevant and adaptable in a dynamic business environment?

Question 4: Measurement and Evaluation:

1. How do you measure the success or effectiveness of strategies developed based on long-term visions?
2. How do you evaluate and adjust strategies if the initial long-term vision needs to be revised or updated?

Question 5: Collaboration and Communication:

1. How do you collaborate with clients to develop and refine long-term visions and strategies?
2. How do you handle conflicts or differing perspectives when working with clients on long-term visions?

Conclusion

Thank you once again for sharing your insights with us. Before we wrap up, is there anything else you would like to add or any key takeaways you'd like to emphasize regarding strategy development and long-term visions?

Appendix B.3: The Place Bureau toolkit interviews script

Introduction:

Our master's thesis revolves around the question "How could we design a service for the city of Copenhagen to involve relevant stakeholders in long-term urban planning on a local level?"

In answering this brief we are trying to focus on a specific moment in the foresight process, which is translating visions into actions. So as to make sure that citizens' visions are all taken into account and developed for real when it comes to the actual planning of an urban plan. Specifically, being students of service design, we are trying to do this by combining foresight and service design to find the most suitable tool or set of tools to do this.

We fell in love with your toolkit and would like to gather insights from you who have managed to make the foresight process participatory, adaptive and urban-related

Participation:

1. I understand that the toolkit is designed **to be used by** different types of stakeholders. Has it already been used? by whom mainly?
2. When do you think it would be the best moment to involve **citizens** in your process? In which stages?
3. What **challenges** can you encounter in these situations?
4. What are the **things to keep in mind** when working with participatory foresight?

Transforming Scenarios into Strategies:

5. Could you tell us what happens after the **development** of different scenarios?
6. Which **tools** are the best to better translate scenarios into actions? Is there a specific one from the toolkit that was more successful than others?
7. Do you think there are tools that need more **expertise** and others that are more accessible to everybody?
8. How would you ensure that urban planners and decision makers **select the right tools** for what they want to do?
9. How do you ensure that strategies derived from scenarios are adaptable to **different possible futures**?
10. Are there any main **criteria** that need to be considered when creating urban strategies?
11. What **challenges** do you typically encounter when moving from scenarios to strategies, and how do you address them?
12. Can you provide **examples** of how you have successfully translated scenarios into actionable strategies for clients or organizations?

Closing:

13. Considering our project. Do you have any **advice**?

Appendix B.4: Urban process mapping interview script

Introduction (10 min)

Thesis Brief

How might we design a service for the City of Copenhagen to involve relevant stakeholders in a long-term city planning on a local level?

Purpose

We're here to delve into the intricate world of city planning at a local level, to understand how city planning processes operate within a municipality.

1. We are aiming at mapping the process and understand who are the stakeholders involved. We are going to do this by filling out this map together.
2. A dialogue about long-term considerations in urban planning

First, we're interested in learning more about yourself and your work experience.

0. Could you please start by briefly introducing yourself and your experience in this field?

FILLING OUT THE MAP (40 min)

We will start filling this framework together. As you can see we have already divided the process into 3 main stages: pre-planning, planning and post-planning.

Ask about example.

Mapping the Development Process

1. To begin, what specific actions are taken during this stage, and who are the primary stakeholders involved?

   Additionally, could you provide insights into the typical timeframe allocated for this phase?

   What are the key goals for each action?

Stakeholder Identification

2. Could you provide more insights into the diverse range of stakeholders involved in a city planning process?
3. From government agencies to community organizations and private developers, how are these stakeholders engaged and integrated into the decision-making process?

Citizen Involvement

4. Turning to citizen involvement, to what extent are usually residents actively engaged in the city planning process?
5. Are there opportunities for public participation and feedback throughout the various stages of development?
6. Where would ideally involve them and how?
7. Can you provide examples of successful citizens' involvement in city planning?

DIALOGUE

Long-Term Considerations (I8 min)

8. Which **criteria** do you consider when developing an urban plan strategy?
9. How do they ensure that **decisions made today will positively impact** the city for decades to come?
10. What **methodologies or tools** are employed to translate the envisioned plan into tangible plans and strategies?
11. Have there been **any changes i**n the city planning process? Which ones and why? Which external factors have influenced those changes the most?

Thank you very much for sharing your insights into city planning processes. Your expertise is invaluable in understanding how cities continue to evolve and thrive.

Julia Reindl main insights

Oskar Stokholm Østergaard

Rosanna Vitiello main insight

tools

- **causal layered analysis tool.** You look at an iceberg and you say, OK, the top of the iceberg. This is big and we think that that's what this problem is about. But actually it's much deeper, and often it's something that's generations or centuries old

Citizens should be included throughout the entire process to improve their understanding and because they are the expert of the area

Actually, I think the point is actually from the beginning. So I think the point of the toolkit is that you can get involved especially from the outset. So the insight phase for instance, the research phase very often Doesn't include citizens, but we think it's much better. If you do. Because citizens are the local experts, right? There's no one who knows a place better than They do and So therefore the tools Of Citizen Science, Citizen LED research can be really valuable in that inside face, and it also takes a lot of the pressure off the so-called professionals, designers, researchers, who often have quite tight research budgets.

Then people, local citizens, tend to be more understanding because they've shared the challenges too. So I would say you couldn't involve people the whole way throughout really. But if you were only going to include a minimum, I think insight and imagination is important

Mistrust is a challenge when co-creating so empathy needs to be built

it's often a mistrust between citizens and authorities and that's why that first stage is about empathy building, and actually that should probably start way before you think the process of design should start

Transparency from the government is needed to avoid frustration and anger among citizens

How much influence do you want people to have or are you willing to give up to people is also really important and you have to manage, manage people's expectations a bit.

Diversity is a value

You don't have to agree that if you will agree, you will probably end up with someone that's quite boring. But you have to Respect other people's differences and understand that the thing you're creating can contain space for both.

Action planning as a way to face people's fear change and laziness

It breaks down based on people's ultimate motivations and laziness, which we all are, you know, a little bit like that

So it's quite figuring out also What are the barriers within their working environment that's stopping them from doing these things now and then?

So I think action planning is really helpful.

The process has to be a cycle

Because you always need to start the process again, and I think that's the challenge. It's like you get something that gets as simple as 5 Strategic points and an action plan, and that's OK. But you've got to see it as a cycle and I think it's maybe something missing from the toolkit that we should probably include. It's a bit of an innovation cycle, so once you get back to that point, you need to do everything again. You need to build empathy because you've got a new team, you need to take that strategy on. They need to provide their deeper insight on the subject matter that they're looking at

Making things relatable and linked to their daily life help citizens to project them into the future

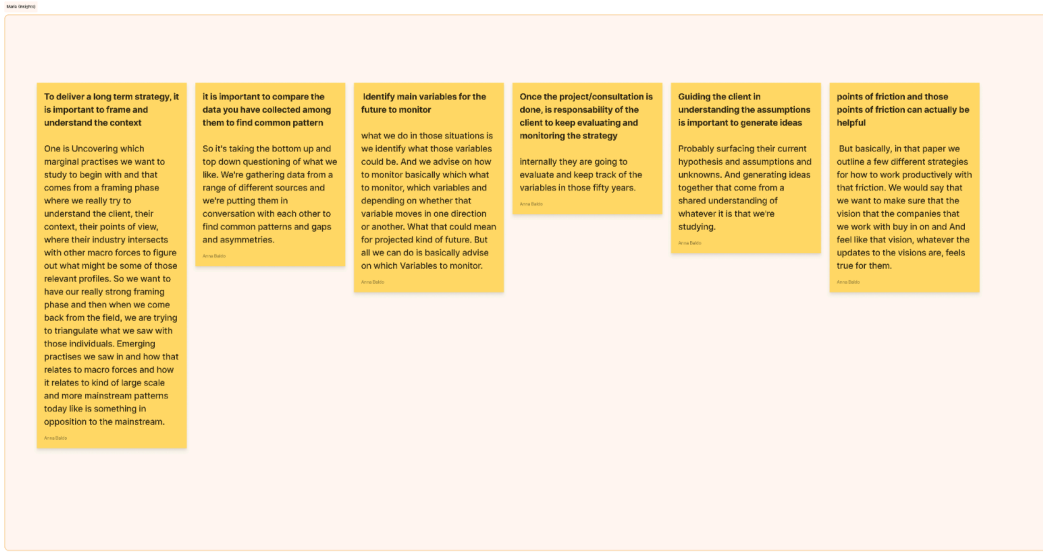
I think in place was interesting is getting people to think 50 years into the past first and then highlighting the changes that have happened in the last 50 years in that place and then saying right now, let's look 50 years to the future and let's think in a similar way and imagine the types of changes

Like, there weren't as many cars on the road. And then, we used to play on the streets and actually that changed. Then it becomes very easy for anybody to relate to. If it's at the right level if. It's neighbourhood level or City level and they have a relationship to.

You should probably be doing a little bit of insight every year to be like, are there any new trends on the horizon that are shifting things that are absolutely changing the way? That we work or the opportunities that are open to.

Finding Culturally relevant sort of signals or leaving us to work with is quite important. So if we assume that the empathy phase is actually OK, when you start the input in. The inside phase. What? Which is which? Would really impact people there the most.

Maria Cury main insights



To deliver a long term strategy, it is important to frame and understand the context

One is Uncovering which marginal practises we want to study to begin with and that comes from a framing phase where we really try to understand the client, their context, their points of view, where their industry intersects with other macro forces to figure out what might be some of those relevant profiles. So we want to have our really strong framing phase and then when we come back from the field, we are trying to triangulate what we saw with those individuals. Emerging practises we saw in and how that relates to macro forces and how it relates to kind of large scale and more mainstream patterns today like is something in opposition to the mainstream.

it is important to compare the data you have collected among them to find common pattern

So it's taking the bottom up and top down questioning of what we like. We're gathering data from a range of different sources and we're putting them in conversation with each other to find common patterns and gaps and asymmetries.

identify main variables for the future to monitor

what we do in those situations is we identify what those variables could be. And we advise on how to monitor basically which what to monitor, which variables and depending on whether that variable moves in one direction or another. What that could mean for projected kind of future. But all we can do is basically advise on which Variables to monitor.

Once the project/consultation is done, is responsability of the client to keep evaluating and monitoring the strategy

internally they are going to evaluate and keep track of the variables in those fifty years.

Guiding the client in understanding the assumptions is important to generate ideas

Probably surfacing their current hypothesis and assumptions and unknowns. And generating ideas together that come from a shared understanding of whatever it is that we're studying.

points of friction and those points of friction can actualy be helpful

But basically, in that paper we outline a few different strategies for how to work productively with that friction. We would say that we want to make sure that the vision that the companies that we work with buy in on and And feel like that vision, whatever the updates to the visions are, feels true for them.

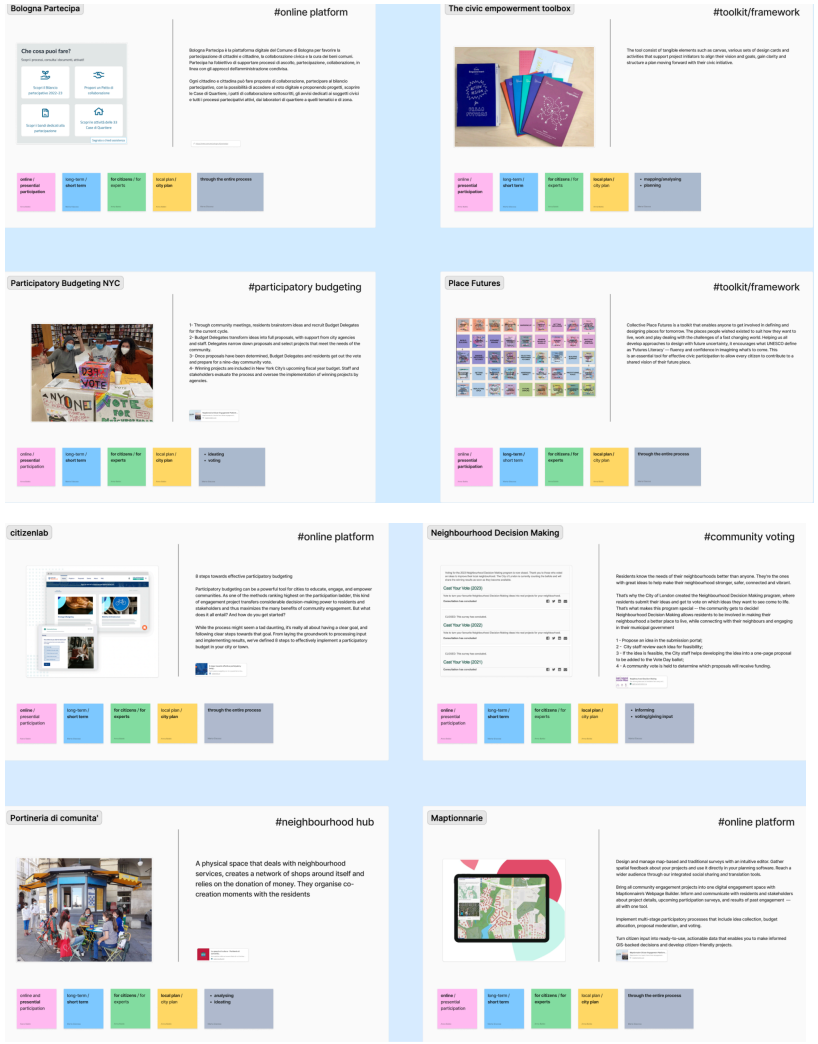
Appendix D: online questionnaire for the reflection activity in the urban experts´workshop (link)

Appendix D.1: feedback and reflections from the urban experts' workshop (link)

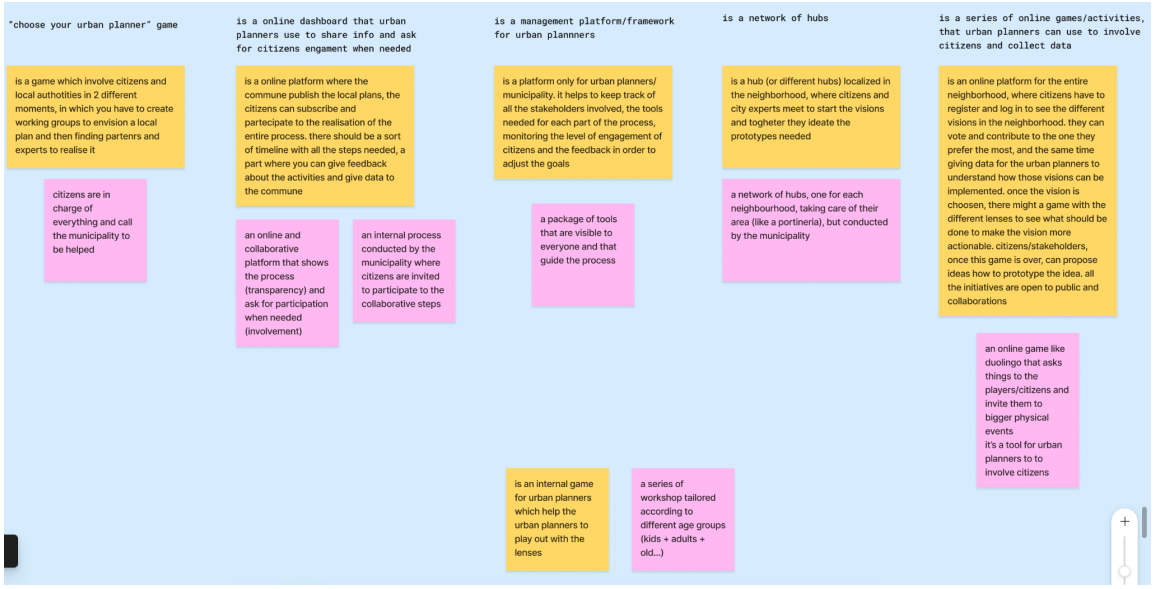
Appendix E: digital presentation prepared for the interview with Gehl (link)

Appendix E.1: Lenses' A4 templates

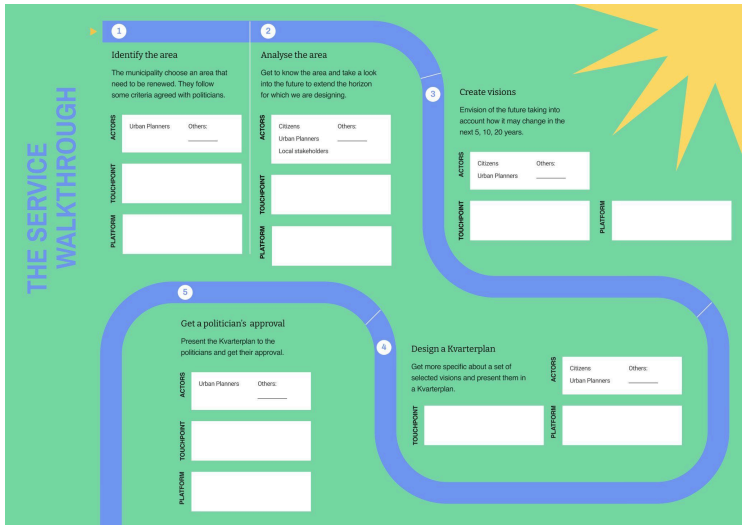
Appendix F: 16 Benchmarking cards



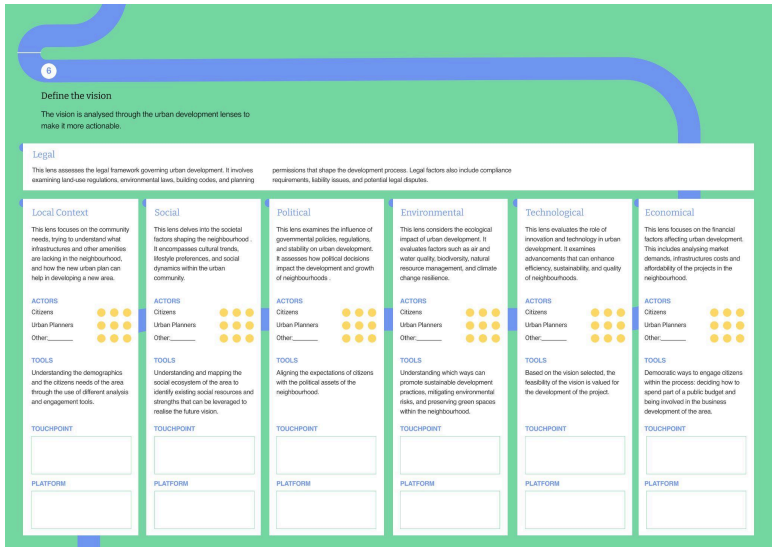
Appendix G: Results from the brainstorming activity



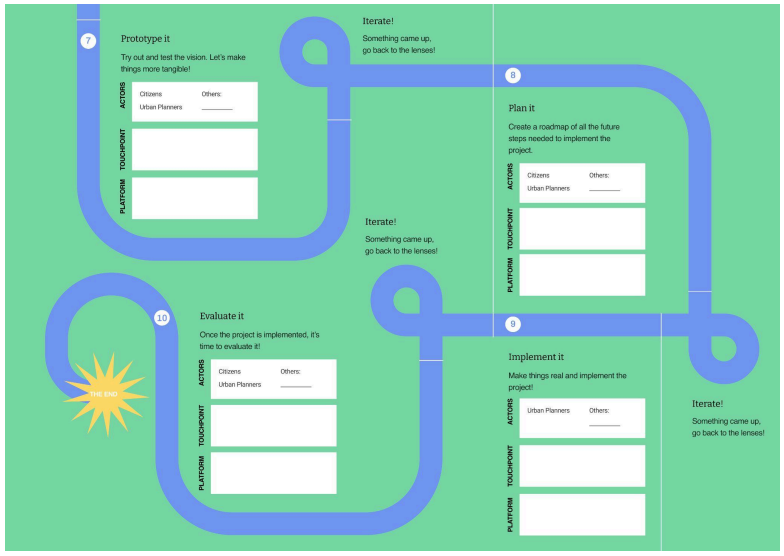
Appendix H: Service Walkthrough template, part 1

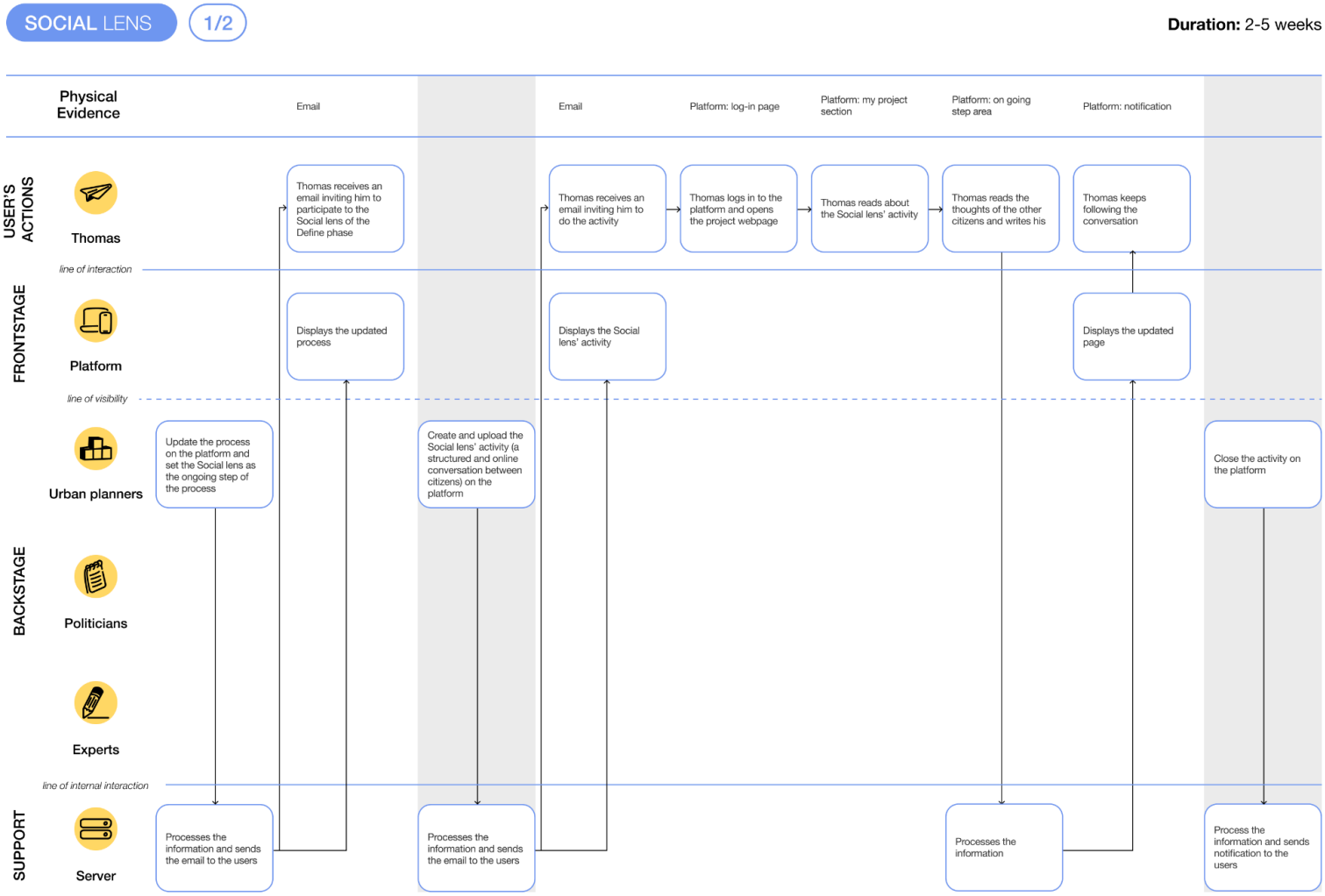


Appendix H.1: Service Walkthrough template, part 2



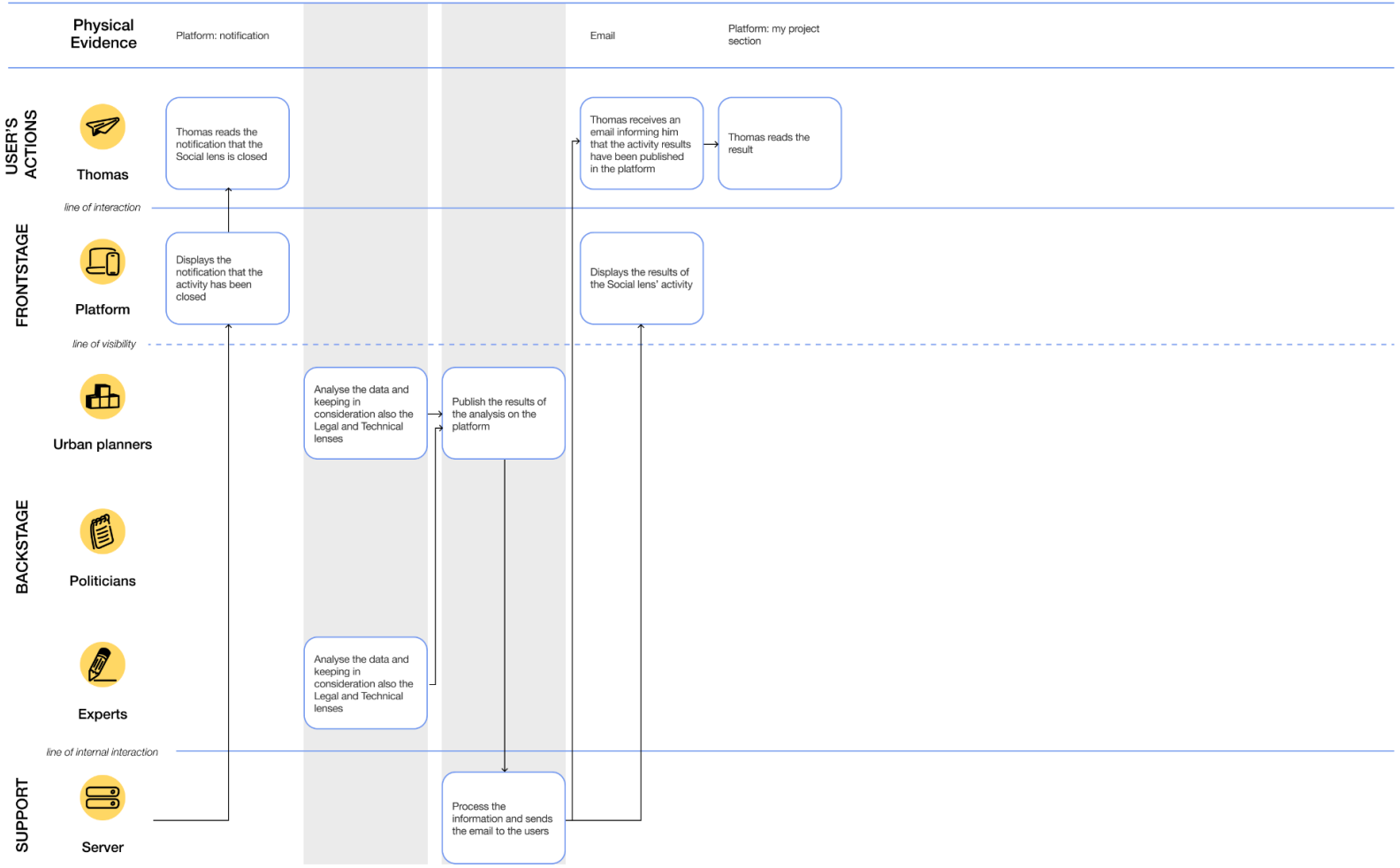
Appendix H.2: Service Walkthrough template, part 3




SOCIAL LENS
1/2
Duration: 2-5 weeks
Physical Evidence
Email
Email
Platform: log-in page
Platform: my project section
Platform: on going step area
Platform: notification
USER'S ACTIONS
Thomas
Thomas receives an email inviting him to participate to the Social lens of the Define phase
Thomas receives an email inviting him to do the activity
Thomas logs in to the platform and opens the project webpage
Thomas reads about the Social lens' activity
Thomas reads the thoughts of the other citizens and writes his
Thomas keeps following the conversation
line of interaction
FRONTSTAGE
Platform
Displays the updated process
Displays the Social lens' activity
Displays the updated page
line of visibility
Urban planners
Update the process on the platform and set the Social lens as the ongoing step of the process
Create and upload the Social lens' activity (a structured and online conversation between citizens) on the platform
Close the activity on the platform
BACKSTAGE
Politicians
Experts
line of internal interaction
SUPPORT
Server
Processes the information and sends the email to the users
Processes the information and sends the email to the users
Processes the information
Process the information and sends notification to the users

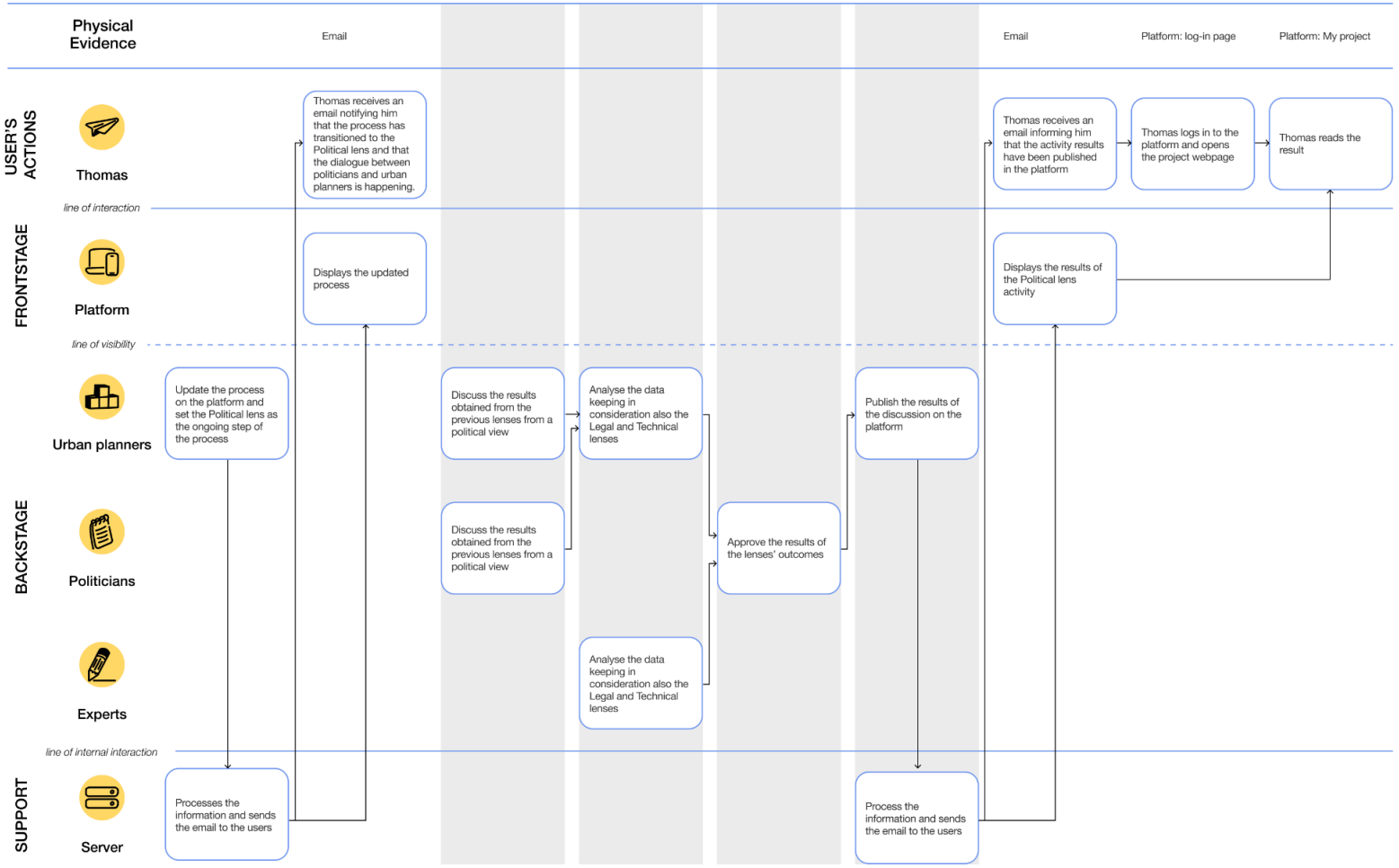
SOCIAL LENS 2/2

Duration: 2-5 weeks



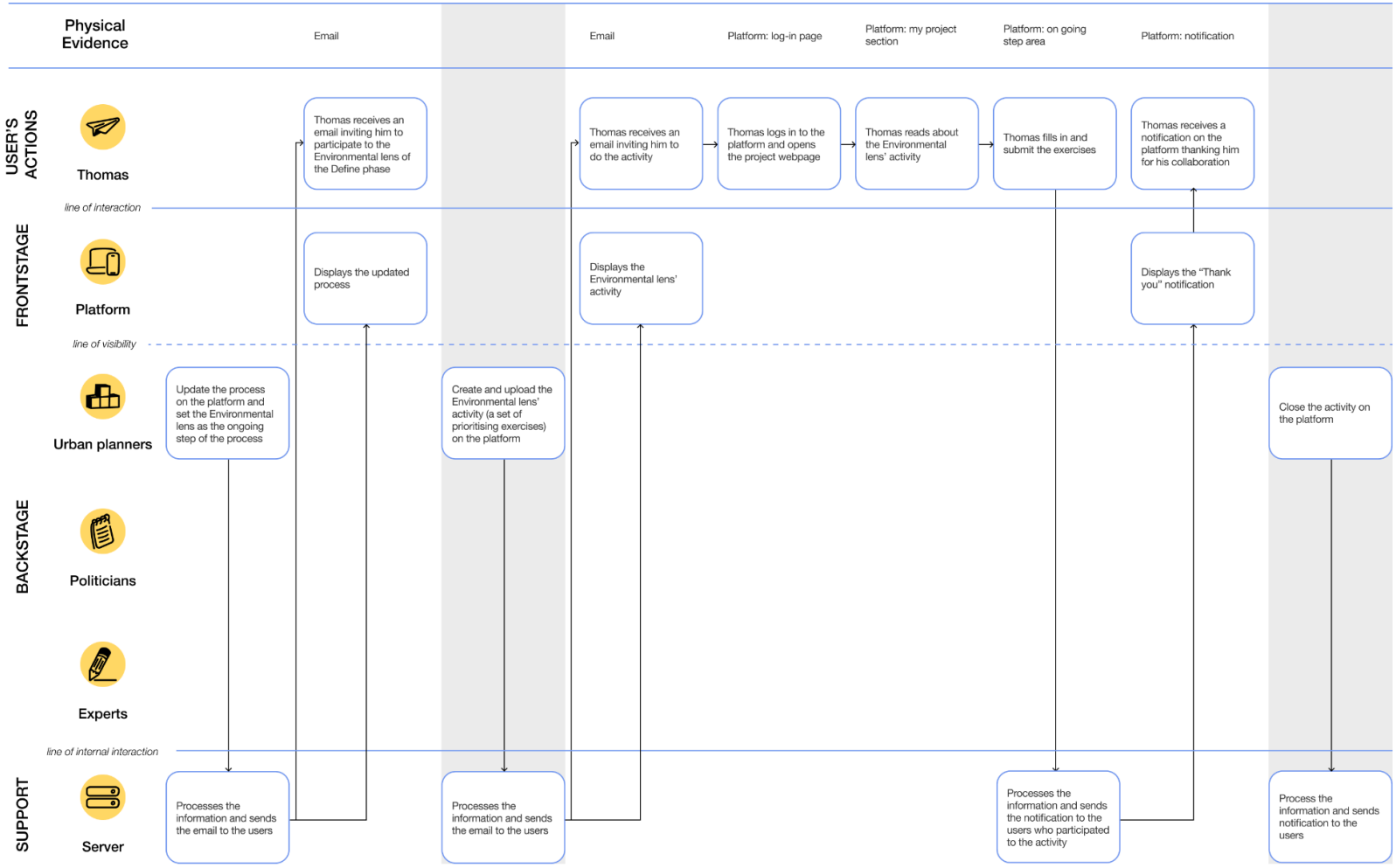
POLITICAL LENS 1/1

Duration: 2-5 weeks



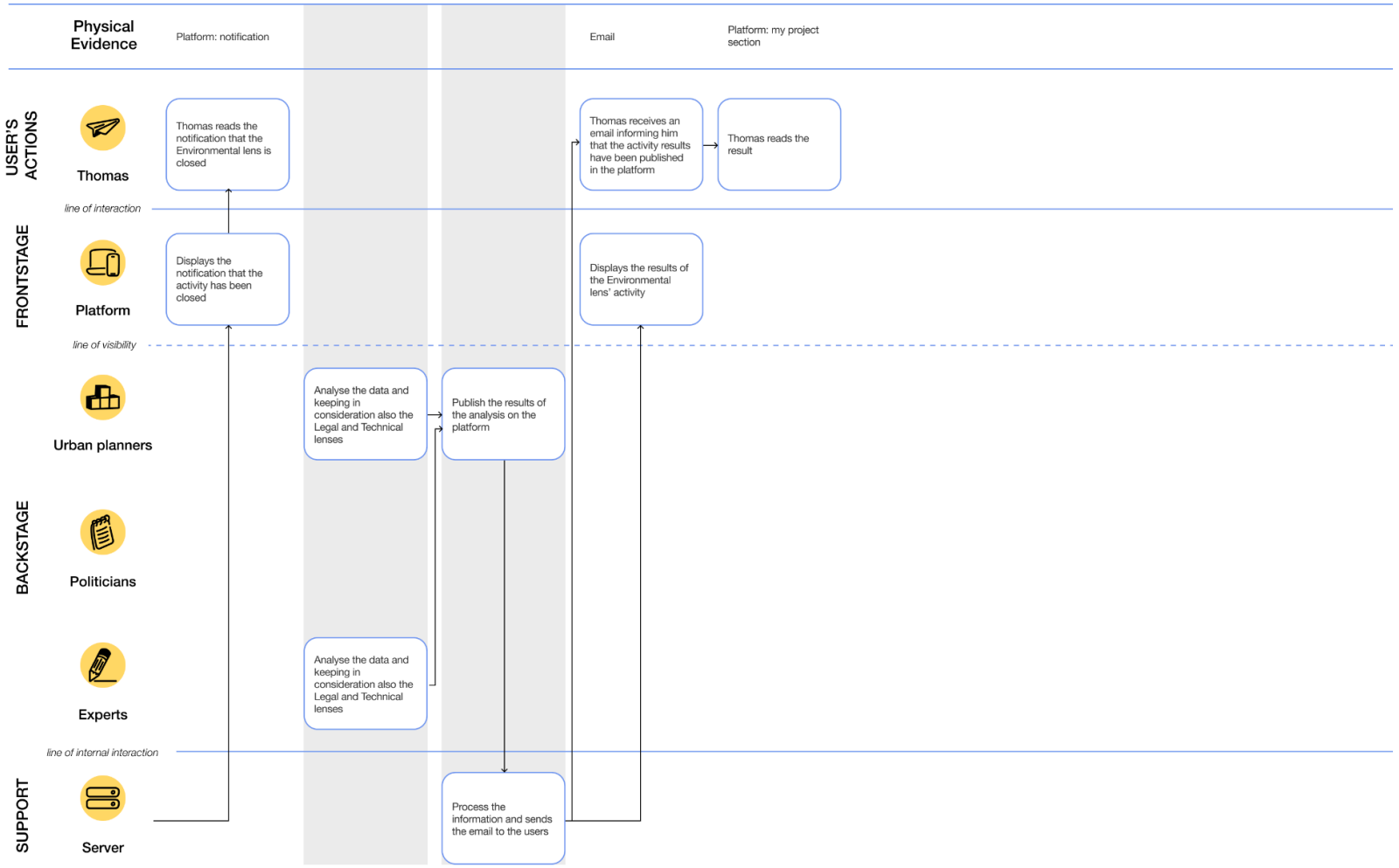
ENVIRONMENTAL LENS 1/2

Duration: 2-5 weeks



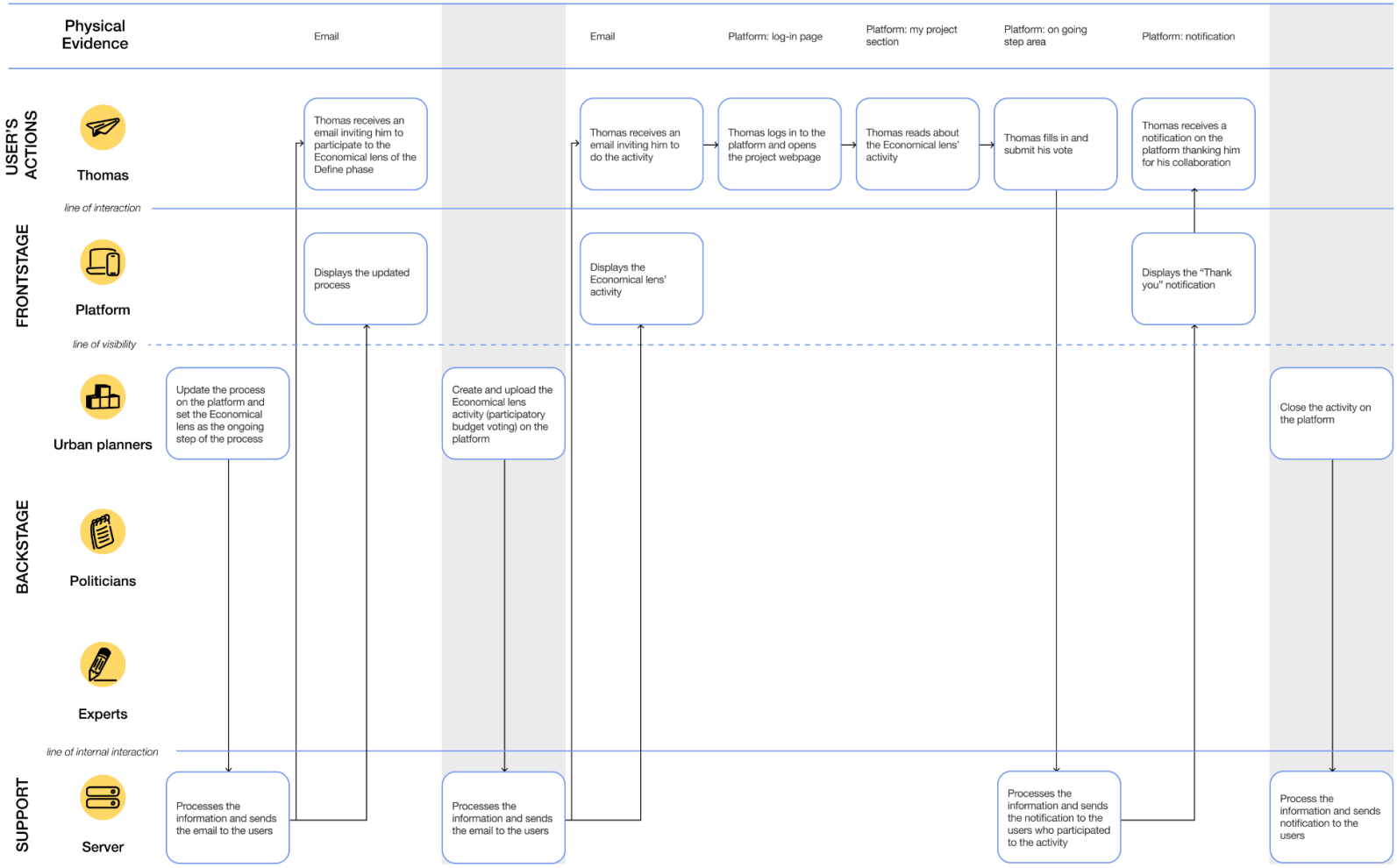
ENVIRONMENTAL LENS 2/2

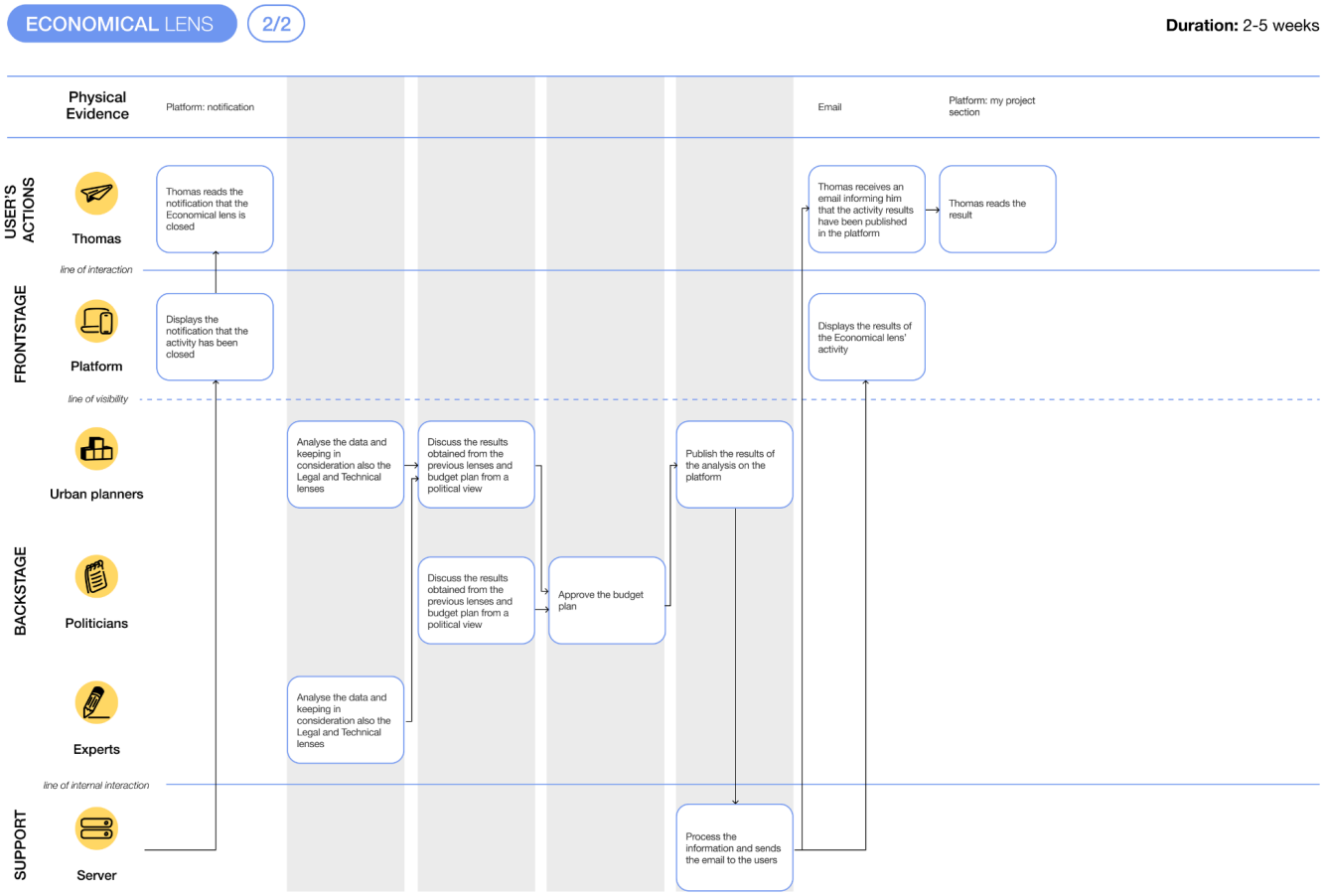
Duration: 2-5 weeks



ECONOMICAL LENS 1/2

Duration: 2-5 weeks





Appendix L: Pitch (link)