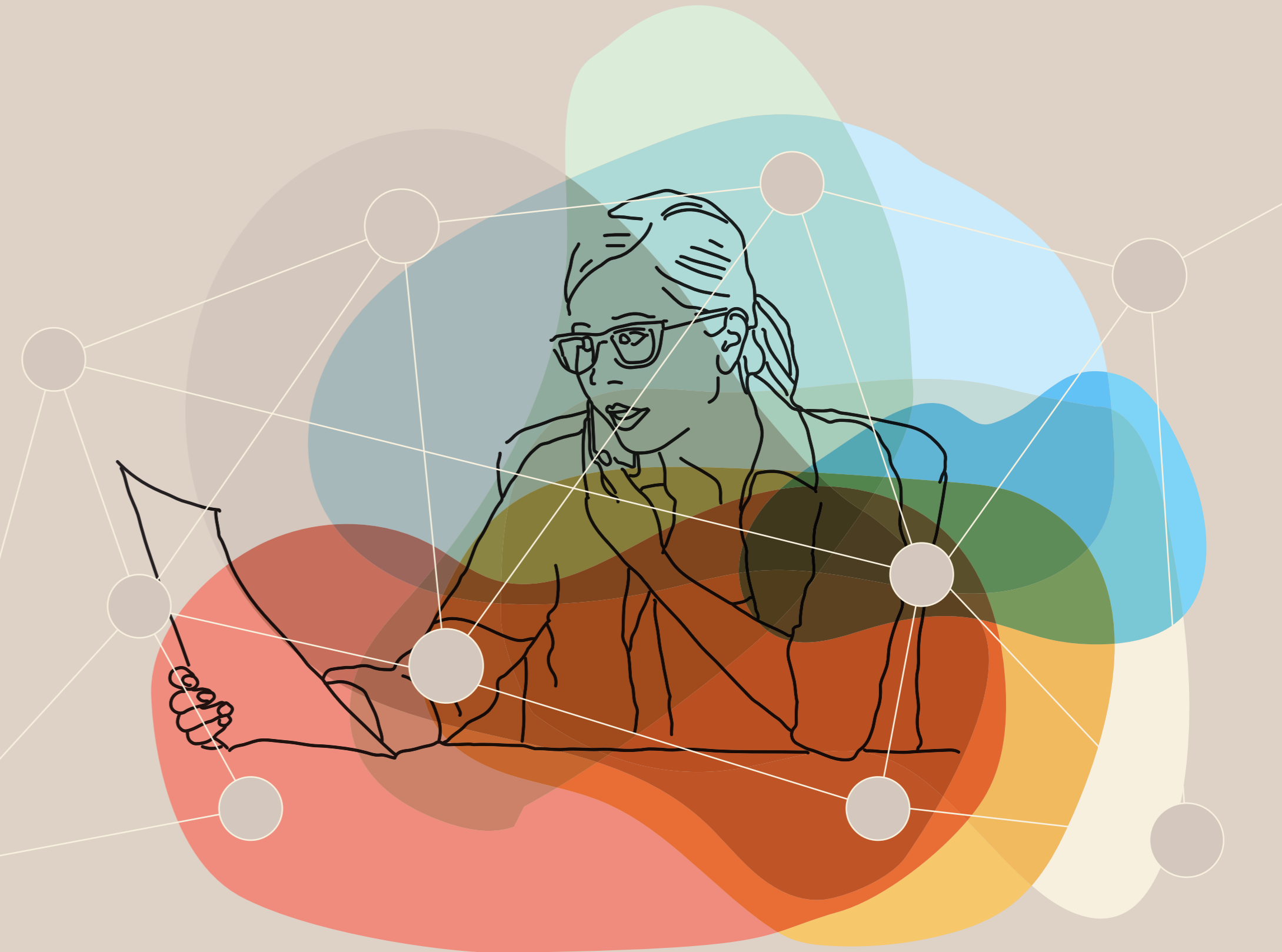


Designing in Complexity

A Systems Oriented Design Approach to Improving the Case Handling of Financial Assistance in Oslo



Marcela Urbano, Maria Haukali Nørregaard, Tabea Glahs
The Oslo School of Architecture and Design // The Municipality of Oslo

Designing in Complexity

A Systems Oriented Design Approach to Improving the Case Handling of Financial Assistance in Oslo

Experience-based Master in Systems Oriented Design
School of Architecture and Design in Oslo
10th of June 2024

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Supervised by
Birger Sevaldson, Natalia Agudelo

Keywords: Public Sector, Social Welfare, Systems Oriented Design

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“Suppose we try to return one of the elements to its source. Suppose we return the sunshine to the sun. Do you think that this sheet of paper would be possible? No, without sunshine nothing can be. And if we return the logger to his mother, then we have no sheet of paper either. The fact is that this sheet of paper is made up only of ‘non-paper’ elements. And if we return these non-paper elements to their sources, then there can be no paper at all. Without non-paper elements, like mind, logger, sunshine, and so on, there will be no paper. As thin as this sheet of paper is, it contains everything in the universe in it.”

Thich Nhat Hanh

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Preface

Abstract • Acknowledgements ■ About the Authors

Abstract

The Thesis in a Nutshell

What?

This thesis presents how systems oriented design has been integrated into design practice by us – three service designers in the digitalization agency Oslo Origo at the municipality of Oslo. The thesis follows a specific project which is about finding out how to streamline the case handling of financial assistance, a public welfare service. Throughout the text, we highlight the contributions and limitations of using systems oriented design while working with the project. We end our reflections by supplementing Selvaldsons (2022) suggested shifts in mindset, bringing more attention to the humbleness, courage and emergence we have encountered in SOD, in order to move towards a more systemic approach in design.

Why us?

As in-house service designers at Oslo Origo, we are often asked to facilitate exploratory processes. As students of systems oriented design we are furthermore curious to explore how to apply our learnings about systems in our design practice. Financial assistance is one of the most complex welfare services in the public sector of Norway and our assumption is that systems oriented design can contribute to improve the service in holistic ways.

Why is it relevant?

We live in a time where we experience the after effects of interconnected global crises: Covid-19 and the war in Ukraine have led to inflation and a high influx of refugees to Norway. This has increased the demand and expenses for financial assistance in Norway by more than 10% in 2022 (Souri & Grebstad, 2023; SSB, 2023). To cope with this, the public sector seeks responses. Streamlining services is seen as a way to free up time for case handling with the ultimate goal of providing better assistance to help people out of the service as quickly as possible. However, due to the complex landscape this is not an easy task.

Acknowledgements

Thank you

This Master thesis would not have been possible without the mental and practical support of many people.

First and foremost, thank you to all our informants and sparring partners. Without you, this thesis would not exist, and the design proposition might have looked different. We hope to honour your time and the knowledge you shared with this SOD thesis.

Thanks to the NAV office in the district of Bjerke for allowing us to conduct our Real World Lab at your location (and apologies for any oversight in our planning).

We extend our heartfelt thanks to our tutors: Natalia and Birger. Your advice, guidance during confusing times, relevant questions, patience, and thorough review of our writings and materials were invaluable.

To our fellow students in the very first EVU SOD Master's program, thank you. We have learned so much from our discussions.

Special thanks to Andreas for sharing your knowledge on influencing conversations as facilitators and within organisations. Birger, thank you again for teaching your first and last executive Master class – it has been an honour to learn from one of the pioneers of SOD.

We are grateful to our colleagues at Origo, especially Ingvild, for your interest in the field, sharing your knowledge, ensuring we could use financial assistance as our case, and leading design in Origo toward a more systemic direction. Ingeborg, your enthusiasm and experience in designing within a NAV context were invaluable, and Vilde, thank you for your feedback on the thesis and your encouragement.

Thank you to the leadership at Origo for supporting our studies financially, giving us time to work on them, and trusting us with a work case for this SOD thesis. Your leadership fosters a culture of experimentation and interdisciplinarity within the demanding context of the municipality.

We also thank the scholarship of the municipality of Oslo “OU fond” for sponsoring this work.

Thanks to our colleagues at the health agency for trusting our process and contributing your knowledge. And to the city council department for labour and social services in Oslo for granting permission to use the project on financial assistance for our Master's thesis, enabling us to connect with other parts of the public sector that would otherwise be difficult to access.

Finally, we would like to thank our families. Thank you for giving us time and space to work on this SOD thesis and for your love and support:
Julius, Jacob and Martin (from Marcela)
Jonas, Julie and Kine (from Maria)
Lars, Leo and Ronia (from Tabea)

On the Use of Chat GPT

In addition to all the valuable inputs and discussions with various individuals, we have used ChatGPT as a sparring partner for language and formulations. As none of us are native English speakers, we found that ChatGPT provided a wider vocabulary and more precise formulations than we could have achieved on our own.

Nonetheless, we aim to maintain a personal tone and believe the reader might notice variations in the language from paragraph to paragraph. This is due to the fact that we are three authors, each with our own distinct writing style.

About the Authors

We are Maria, Marcela, and Tabea, three service designers working at Oslo Origo, the digitalisation department of the municipality of Oslo. This document is our Master's thesis in systems oriented design at the Oslo School of Architecture and Design. It is also an attempt to share our learnings on how to navigate the complexity inherent in many of the assignments we receive.

Design is a profession practised by professionals, who are, more importantly, human beings. Through the lens of Kelly's personal construct theory, each designer is unique, constructing their reality through personally generated meaning and actions (Midgley, 2000). Reflecting on our positionality is crucial to identify what we include or exclude in our work as professionals (Noel & Paiva, 2021). This reflection is essential for conducting a boundary critique (Ulrich, 1996; Midgley, 2000). Additionally, we resonate with Arturo Escobar's assertion that *"design takes place today in systems of distributed agency, power, and expertise, within which it is becoming more difficult to maintain the fiction of the isolated individual"* (Escobar, 2018, p. 85).

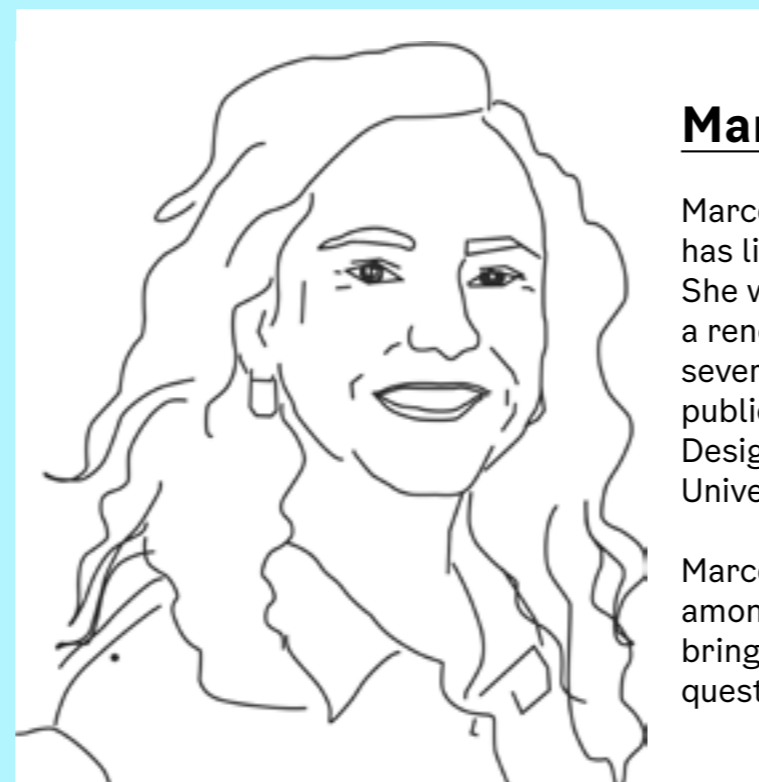
To provide context and help you understand our perspective, we would like to share some of our personal motivations and backgrounds before delving into the main topic of this thesis. We invite you to keep this information in mind when assessing our work. Our journey began with the realisation that our toolbox as service designers was insufficient for creating the improvements we aspired to see. This sentiment is

captured by the quote: *"When service design challenges expand in scale and complexity to 'system level', user-centred design methods fail to match the required complexity"* (Van Ael & Jones, 2021, p. 30). Consequently, we became students of systems oriented design, hoping to learn how to better navigate complexity and address the root of problems.

Three years later, we echo the words of our fellow student, Eva Hugenschmidt, acknowledging that we can only *"capitulate in front of complexity"* (personal communication, 2024); we cannot control it. There is no single method or tool that can help us get to the root of a problem or provide a sense of control. However, it is possible to muddle through (Lindblom, 1959), and we intend to keep muddling.

All three of us appreciate the Norwegian welfare system as it stands today, yet we also see room for improvement. We have chosen to work within the public sector because we believe that changing the system from within is an effective way of *"dancing with the system"* (Meadows, 2001).

We will now provide a brief introduction of each designer and describe the essence of our collaboration.



Marcela Urbano

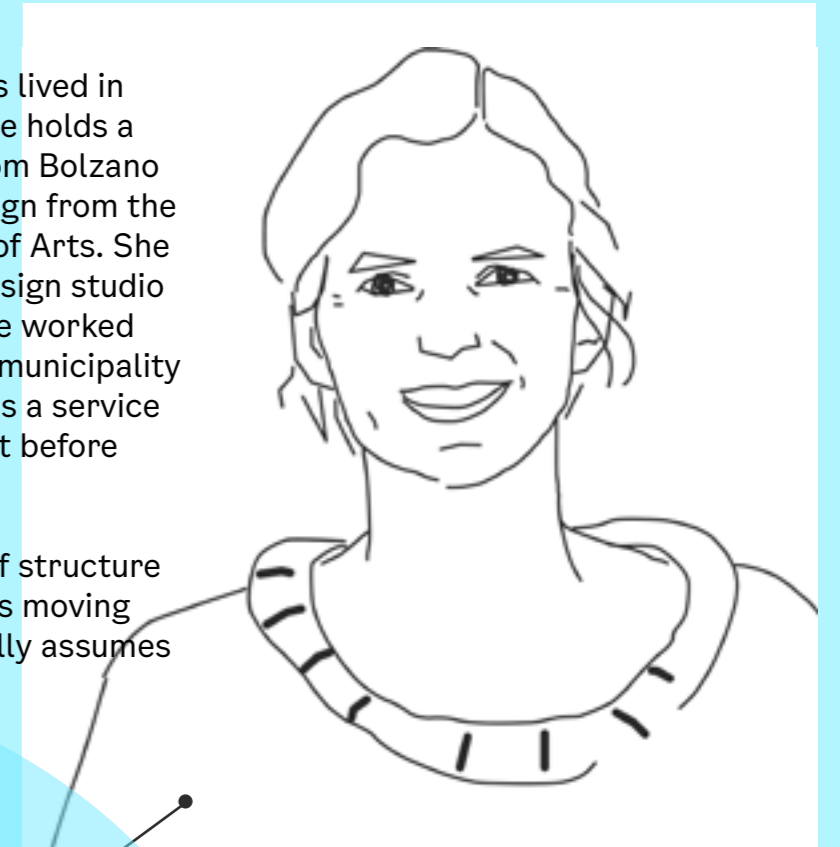
Marcela is from Colombia and has lived in Norway for 20 years. She worked as a consultant for a renowned design company for several years before joining the public sector. She studied Industrial Design for five years at the Javeriana University in Bogotá, Colombia.

Marcela is the most considerate among us, and her Latino temper brings warmth and essential questions to our collaboration.

Tabea Glahs

Tabea is German and has lived in Norway for 12 years. She holds a BA in Graphic Design from Bolzano and an MA in Social Design from the Oslo National Academy of Arts. She is a co-founder of the design studio Growlab Oslo, where she worked for several years. In the municipality of Oslo, she first acted as a service designer in a city district before joining Oslo Origo.

Tabea's German sense of structure and quality helps keep us moving forward, and she naturally assumes leadership roles.



Our collaboration consists of hundreds of hours of discussions on subjects, projects, ethics, and learnings. Sometimes we agree, and sometimes we disagree. We eat, laugh, and occasionally get tired and frustrated with each other or others. We believe our differences result in a balance between exploration and completion, critical questioning, and sensitive listening.



Maria Haukali Nørregaard

Maria is Danish and has lived in Norway for six years. She holds an MA in Co-design from the Royal Danish Academy of Design. Like Tabea, she worked as a service designer in one of Oslo's city districts before joining Oslo Origo.

Maria is a happy time optimist with a pragmatic and diplomatic approach.

Thesis Structure

Approaching the Thesis ■ Reading Guide

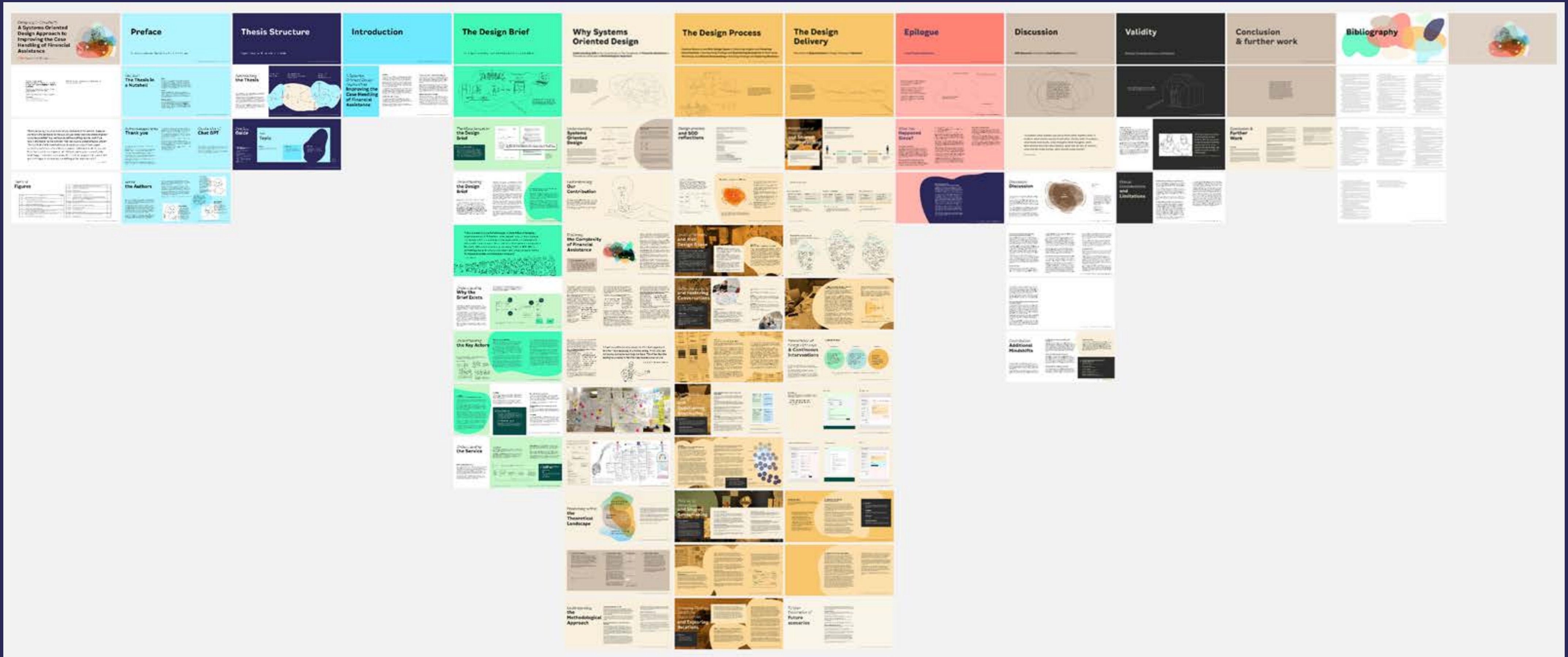


Image caption: An overview of alle the pages of the thesis as presented in Miro.

Approaching the Thesis

This thesis is the culmination of three years of studying SOD. Here we describe and reflect on our exploration of systems oriented design in a practical context by following a design project that we worked on at Oslo Origo.

We have approached the design project in two ways: first, by using our toolbox as service designers, and second, by expanding the boundaries and incorporating new techniques from systems oriented design. When introducing these new techniques to leaders unaccustomed to widening the scope, we explained it as part of our SOD studies. Separating these two approaches has not been easy. As our tutor Natalia says, *“If you are a good service designer, you work systems oriented.”* (Agudelo, personal communication, 2024)

Throughout this SOD thesis, the descriptive parts will discuss our work on the design project, while the reflective parts will illustrate our reflections and learnings on the project from our perspective as SOD students. Our reflections aim to assist other designers working within the public sector in understanding the complexity inherent in public services and to provide some practical inspiration.

SOD THESIS:
Studying SOD

DESIGN PROJECT:
Answering the brief on financial
assistance in Origo

SOD THESIS:
Reflecting on
implementation of SOD

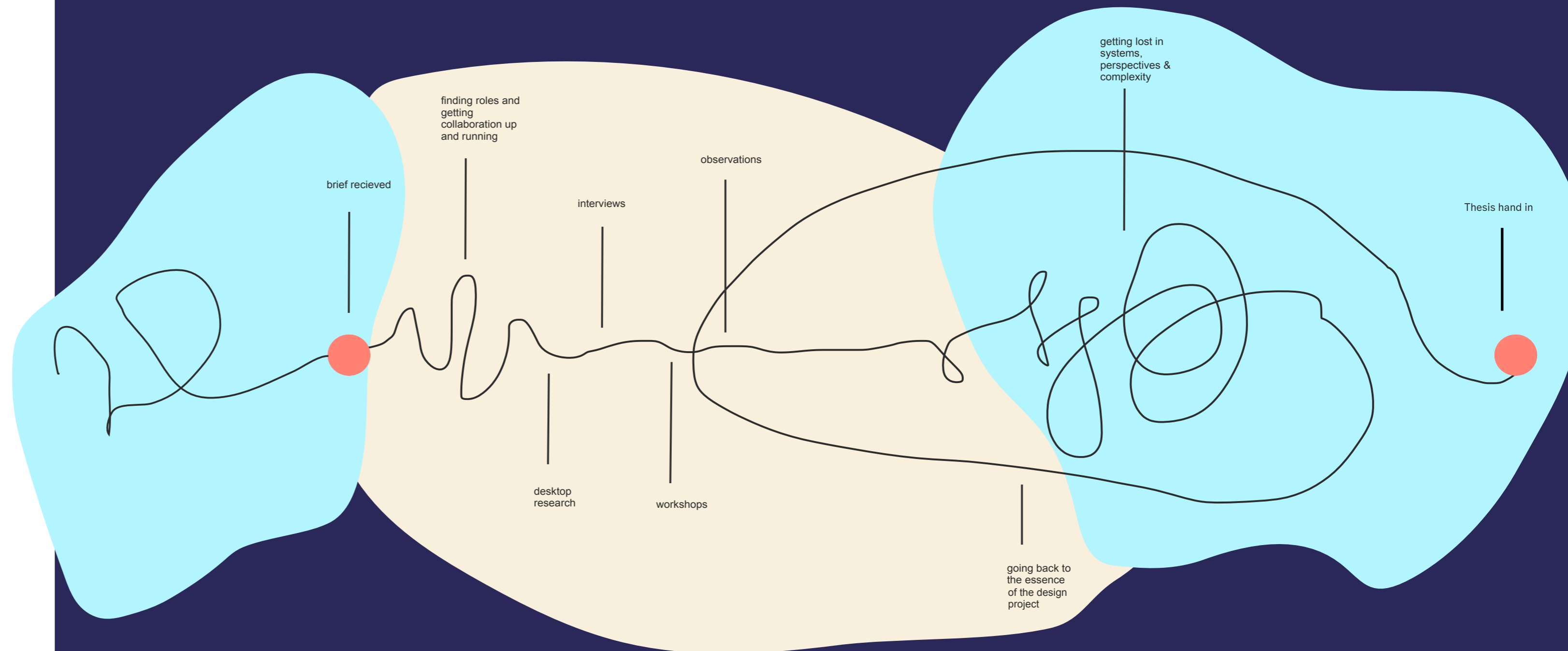


Figure 1. Overview of the approach to the thesis and some key activities.

Reading Guide

List of abbreviations and important names

- Fasit** ■ Software system used for casehandling
financial assistance in Oslo
- KS** ■ Interest organisation for Norwegian municipalities
- MVP** ■ Minimum viable product (design/digital product language)
- NAV** ■ The public welfare administration
- Origo** ■ The digitalisation agency of Oslo Municipality
- SOD** ■ Systems oriented design

Title **Topic**

Subtitle

Body text provides description of the design project, being it relevant context, activities or discussion of our work

i Information

Certain parts are demarcated by an information box, containing important terminology. This text is in squares marked with an “i” .

Reflection

Throughout the text, we share reflections from our perspective of SOD students and connect these to relevant theory when needed. This text is encapsulated by organic forms.

Figure 2. Visual elements in the document: a reading guide.

Introduction

A Systems Oriented Design Approach to Improving the Case Handling of Financial Assistance in Oslo

Intention

As service designers working within the complex landscape of the Norwegian public sector, our user group encompasses the entire population of Oslo. Designing better services is a daily challenge, and defining “better service” is just one of many difficult questions. Viewing a service as an isolated event can make the task manageable but raises the risk of unintended consequences that could worsen the overall system.

This thesis presents our experience integrating systems oriented design (SOD) into a traditional service design project aimed at improving the case handling of financial assistance. The design project seeks to make case handling more efficient, allowing case handlers more time for user follow-up. The service of financial assistance is provided by the municipality through NAV. Even a single municipal service is part of a complex web of actors, actants, and more.

Our motivation for experimenting with SOD stems from a sense of shortcoming of our previous practice and methods when designing within complex environments like the public sector. This thesis therefore seeks to explore how SOD can help to improve the efficiency of financial assistance case handling in Oslo. And how SOD can be used to understand the systemic interactions and dependencies that influence this service. By focusing on a specific project, we aim to share detailed insights and learnings that could benefit others working to improve public services.

Practical Context: Oslo Origo

We are employed as service designers in the digitalisation department of the municipality of Oslo, Origo. Origo’s mandate is to digitalise the municipality. It is organised in product areas which align with the services the municipality provides, focusing on the topics of healthcare, child care, elderly, voluntary work, and exploring possible entry points to work with social services as well.

As the design project is carried out as part of our employment, we draw on our experience as service design practitioners and seek to combine this practice with the mindset and praxeology of systems oriented design.

Theoretical Context: Systems Oriented Design

Following Sevaldson (2022), we view systems oriented design as both a mindset and a practice grounded in extensive praxeology. SOD employs methodological pluralism inspired by critical systems thinking. This thesis draws from systems thinking, soft systems methodology (e.g. Checkland, 2000), design thinking (e.g. Rowe, 1987), and our experience as service designers. We also explore organisational development theory, resonating with Stacey’s (2007) idea of organisations as streams of conversations.

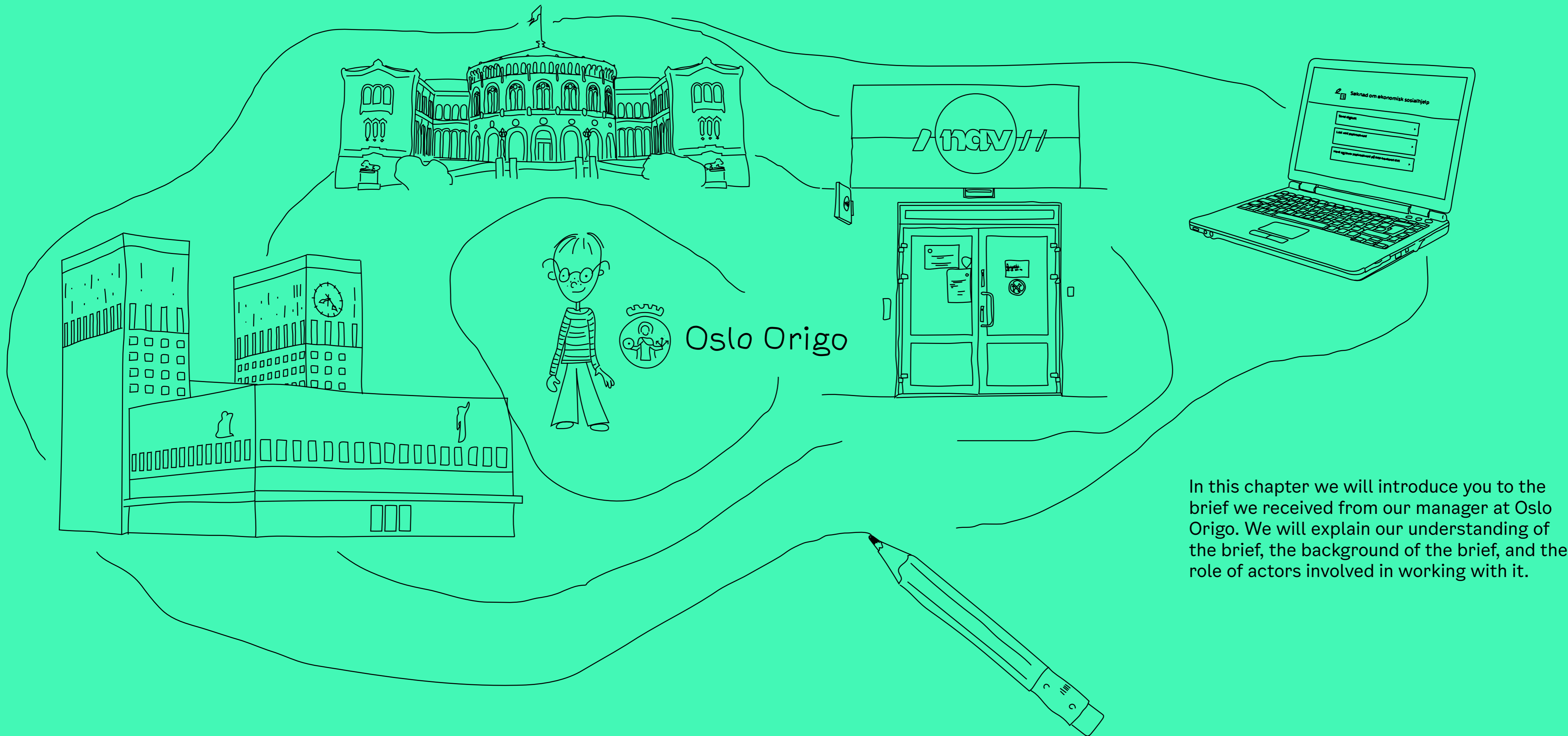
Systems oriented design is a dialect within the relatively young field of systemic design (Sevaldson, 2022). As the systems thinking movement has been criticised for being too mechanistic, and cumbersome (Collopy, 2009), this is one explanation for combining the theoretical approach of systems thinking with the practical design approach (Jones, 2014). By integrating SOD methodologies with our practical experience in service design, we aim to bridge the gap between theory and practice, demonstrating how systemic approaches can enhance service delivery. This writing is a capturing of learning-by-doing and inspired by a research through design approach (Frayling, 1993).

Brief overview of thesis chapters

The reader will first be introduced to the brief of the design project which we will follow throughout this SOD thesis. We will share why the brief exists and describe the key actors involved in working with the brief. We will then explain systems oriented design and why we consider it to be an interesting approach for working with the brief. The complex landscape that the brief sits within will be mapped out. From here we will present the design process, highlighting some key activities and techniques used before we present the design delivery. Eventually we will give a short update on what has happened since our design delivery before we dive into a discussion of our learnings and findings. We will end this document with a conclusion and point to the contribution and limitations of this SOD thesis for the field of systems oriented design.

The Design Brief

The Design Brief ■ Why the Brief Exist • Key Actors ■ The Service



In this chapter we will introduce you to the brief we received from our manager at Oslo Origo. We will explain our understanding of the brief, the background of the brief, and the role of actors involved in working with it.

The Allocation Letter the Design Brief

What is an allocation letter?

City council departments prepare annual allocation letters for the municipal agencies/enterprises they are responsible for. These describe their expectations, requirements and guidelines for the coming year, based on the approved budget. Usually, the agencies/enterprises first provide their inputs on what the letter should contain so most of the letter's content doesn't come as a surprise. The letter serves as a means to monitor how the agencies allocate and utilise their budgets throughout the year. Therefore, adherence to the directives outlined in the letter is crucial to ensure compliance with the city council's expectations.

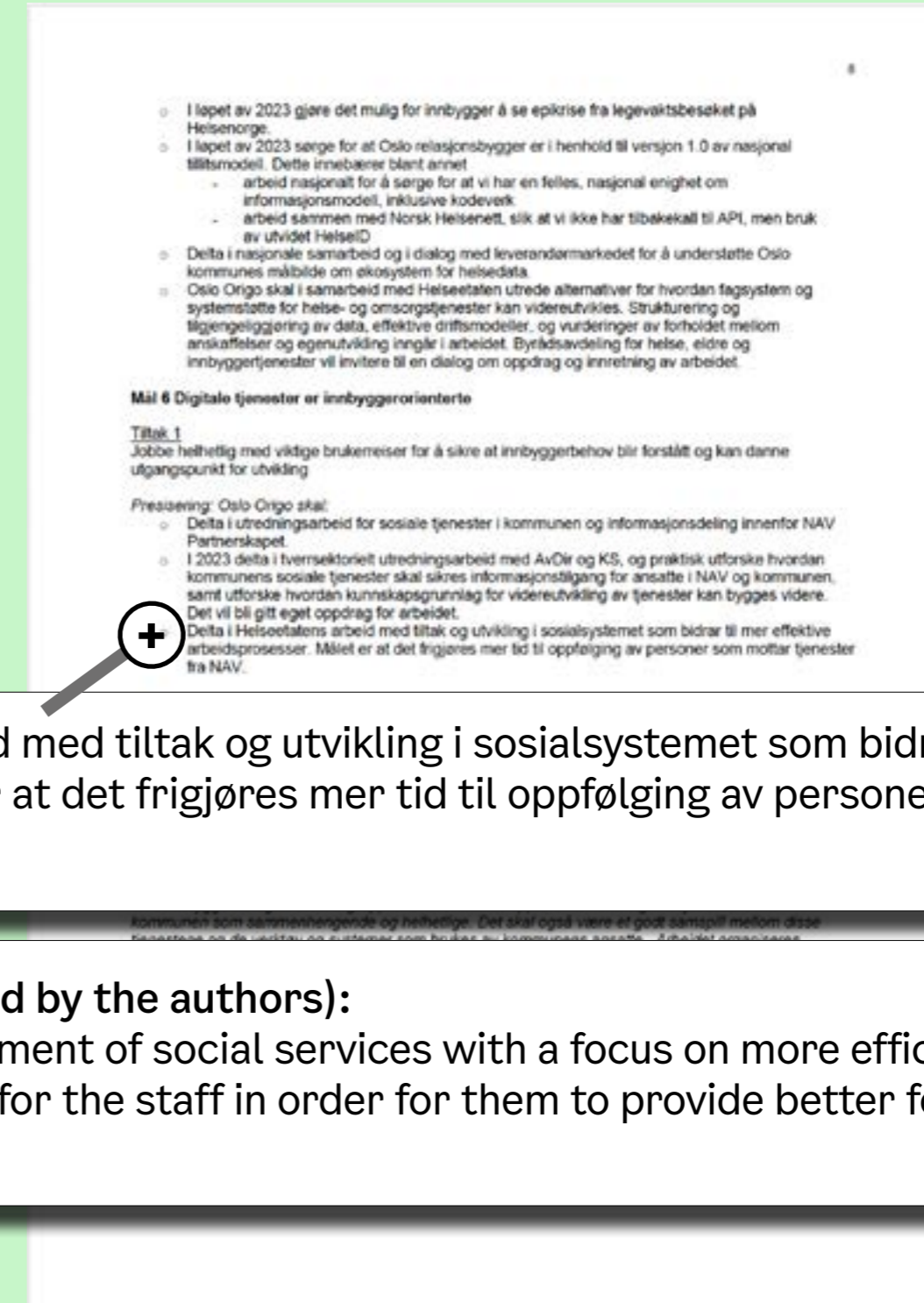
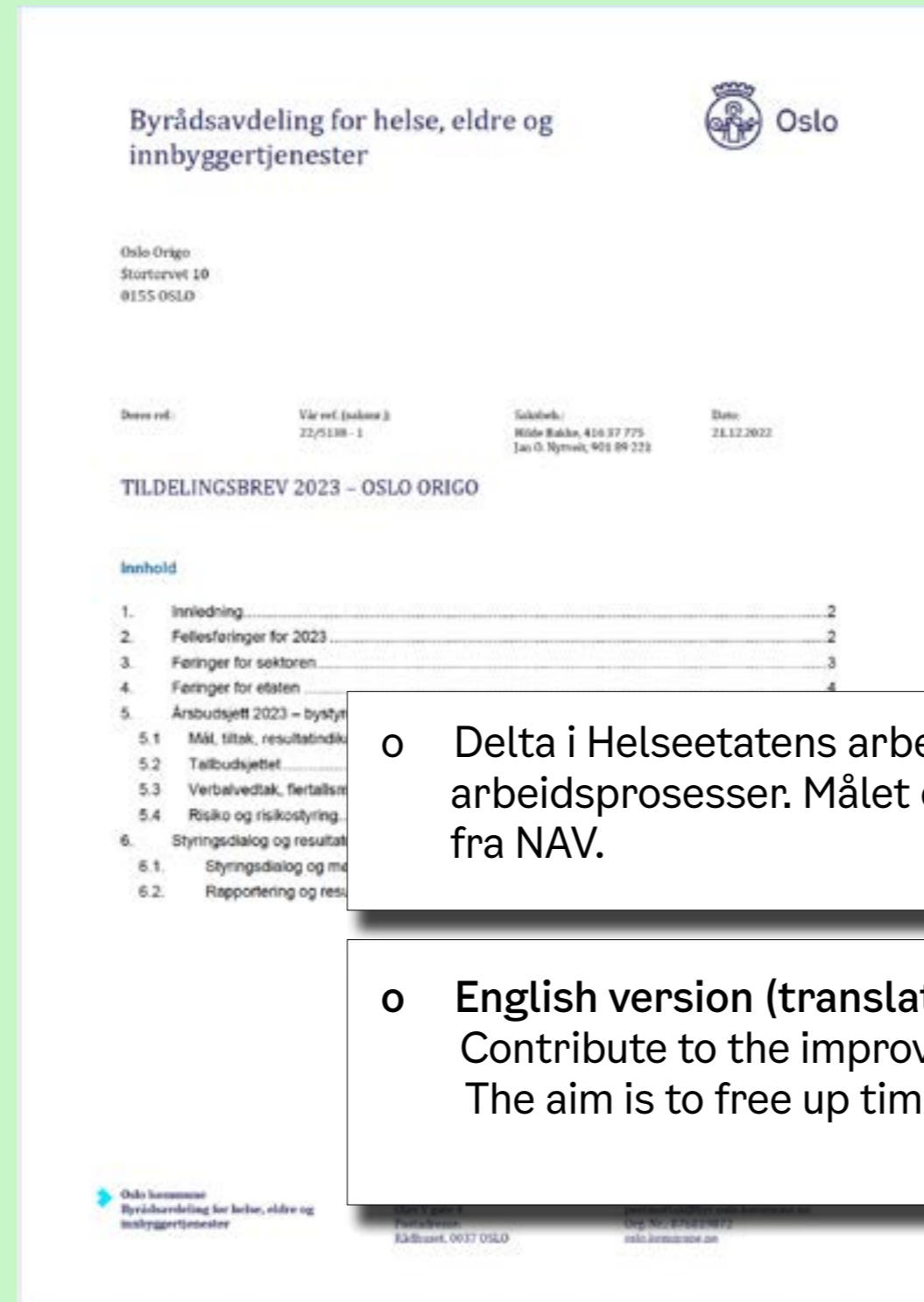


Image caption.
The highlighted area shows part of the allocation letter Origo received and which is the starting point of our brief.

- o Delta i Helseetatens arbeid med tiltak og utvikling i sosialsystemet som bidrar til mer effektive arbeidsprosesser. Målet er at det frigjøres mer tid til oppfølging av personer som mottar tjenester fra NAV.

- o English version (translated by the authors):
Contribute to the improvement of social services with a focus on more efficient work processes. The aim is to free up time for the staff in order for them to provide better follow-up of the users.

Understanding the Design Brief

As a design project on the side to other daily tasks at Oslo Origo, we received the following brief:

Document the needs and user journey for employees (and citizens to the extent considered relevant) involved in financial assistance. The primary emphasis should be on identifying the major pain points and opportunities for streamlining service-related work processes in the context of financial assistance. This documentation will be the foundation for evaluating the establishment of specific initiatives in subsequent phases. (Mandat – Samarbeid Helsestaten og Origo om økonomisk sosialhjelp, 2023)

We want to unpack the brief in order to understand better what has been asked from us. We also want to stress out the systemic perspective in the brief which involves understanding how different parts of the system interact and influence each other.

Document needs and user journey: The wording in the brief implies a delivery format tightly connected to service design. User journeys and service blueprints are often understood as the same thing in the municipality and hence we interpreted the expectation of delivery to be a service blueprint. Financial assistance involves multiple stakeholders including employees and citizens. Mapping out their journeys will reveal how their interactions and dependencies affect the overall service delivery. Furthermore, their needs and experiences must be understood in relation to each other to create a seamless service experience.

Identify major pain points: The main goal is to uncover the significant challenges or difficulties faced in the processes related to providing financial assistance. Pain points often arise from complex interdependencies within the system. Bureaucratic hurdles, inefficiencies, or bottlenecks in one part of the process can ripple through and impact other areas. Identifying these pain points requires looking at feedback loops within the system. For instance, delays in one department can cause a backlog in another, affecting overall service efficiency.

Identify opportunities for streamlining: In addition to identifying pain points, the focus is also on finding opportunities for improvement and optimization within the service-related work processes. Improvements should not just fix isolated issues but should enhance the entire service delivery ecosystem. This might involve aligning goals across departments to ensure that changes benefit the whole system.

In summary, the expectation is to conduct a thorough examination of the processes related to financial assistance, identifying both challenges and opportunities for improvement. The insights gathered will inform the development of targeted initiatives to enhance service delivery in subsequent project phases.

From a systemic perspective, we need to understand how different parts of the system interact and influence each other. We must also consider the broader context and collective impact of suggested actions. By integrating a systemic perspective, we can develop targeted initiatives that enhance service delivery in subsequent project phases, ensuring that improvements are sustainable and beneficial for both employees and citizens.

Reflection: Receiving a Brief in the Municipality and the Lack of Feedback Loops

The brief we received was given to Origo and the health agency in their annual allocation letter 2023 (Byrådsavdeling for helse, eldre og innbyggertjenester, 2023). Here, the scope was broader: Origo was asked to participate in the health agency's work to streamline social services (which include more services than financial assistance). The aim was to free up time for the case handler to follow-up people who receive social services. A board of leaders from both agencies decided to narrow down the scope to the brief as stated above.

We received the brief without any previous data / research connected to it. With no experience ourselves within the field, it felt like we had to start our research from zero – which can be seen positively as having fresh eyes. However, it would be helpful to have a hand-over of previous knowledge and research, together with a map of actors and other initiatives. In addition, it would be helpful to be part of the conversations earlier, in order to understand the motivation behind the brief. This would enable a systems oriented designer to look deeper faster and thus save the organisation time and money. We often experience this lack of feedback loops within the public sector, where previous knowledge gets lost once a task is handed over to a new actor.

“We are entering a period of change: a large influx of refugees, expensive times, high interest rates, higher rents, prices increase everywhere. We are entering a time when there are more people who need social services. There will be a sharp increase in expenses. We had a 10% increase last year, meaning 1 billion NOK. When such things occur in society, it is clear that social services receive increased attention and increased pressure.”

Bureaucrat from KS



Understanding Why the Brief Exists

The past few years, we have experienced interconnected global crises: a global pandemic (Covid 19) hit us and with it the lock-down of cities and countries. Within its shadows, a war in Europe was unexpectedly started by Russia attacking Ukraine. Both events have a stake when it comes to the inflation we now experience globally, with a recession looming. And if this was not enough, we live under the threat of a climate catastrophe.

In Norway, inflation reached 5,8% in 2022 (Thorsnes & Økland, 2023). In 2022, the country experienced a shock when the prices for electricity shot up due to a global energy crisis caused by the war in Ukraine, at the same time as we have the after-effects of the corona pandemic. Banks have increased their interest rates by more than 4% which leaves many citizens struggling to meet ends. The last security net of the Norwegian Welfare state is financial assistance which provides financial assistance to those in need. This service has seen a rise in users from 2021 to 2022 by 10% (Souri & Grebstad, 2023; SSB 2023). And even though it is intended to be a short term service, around 50% of users in Oslo are considered to be long-term users. Along with media reporting on long food queues, it feeds into a fear of rising inequality and poverty in one of the richest countries in the world.

All these events have put the public sector under pressure to respond and adapt – be it to provide vital health care during the pandemic, prepare and adjust for climate change, accommodate refugees, review global trade agreements or deal with a rising demand in services.

The brief looks at the invisible side of these events: how the public sector is trying to meet the increased demand for the service of financial assistance by looking at how to increase the efficiency of the case handling. The brief has its offspring in the yearly allocation letter for Oslo Origo and the health agency in 2023 (Byrådsavdeling for helse, eldre og innbyggertjenester, 2023).

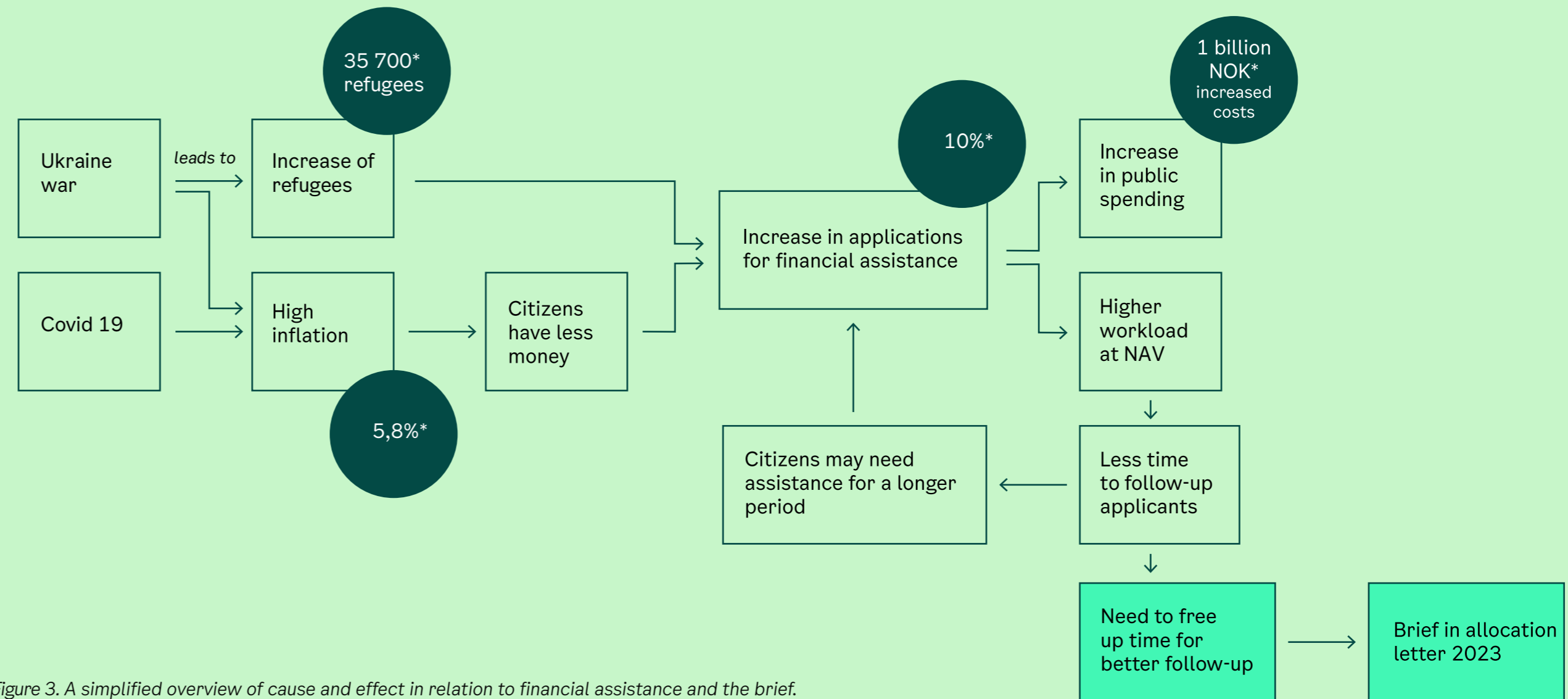


Figure 3. A simplified overview of cause and effect in relation to financial assistance and the brief.
* numbers from ssb.no, 2022

Understanding the Key Actors

We want to present some of the key actors involved in working with the brief. After describing briefly the core team and their roles, we will provide short explanations of the organisations involved in working with the brief.

The Core Team

A design lead from Origo. Role: To follow the process and make sure there is progress.



A data analyst and product leader from Origo. Role: Contribute with quantitative data analysis, learn from the process.



Three service designers from Origo. Role: To lead the process (one of us). The others joined to utilise the project as a learning journey for our master's program.



Four administrators for the software system Fasit from the health agency. Role: Participate with knowledge on software system and work processes for case handlers.

Reflection: Extreme Teaming

“The processes through which teams can benefit from members’ diverse knowledge can be thought of as team-learning behaviours; concretely, these include asking questions, seeking feedback, experimenting, reflecting on results, and discussing errors or unexpected outcomes of actions” (Edmondson, 1999, p. 353).

Since the project was considered a side project for all involved, we were not a cohesive team but rather individuals from different departments within the municipality with varying cultural backgrounds, professional languages, and levels of expertise on the subject matter. Rather than establishing a stable team we had to practise what Amy Edmondson and Jean-François Harvey (2017) terms teaming. All of us were simultaneously working on other tasks and used something between 10-50% of our time on the brief. We lacked dedicated time slots to work together and also a collaborative workspace. Additionally, there was initially no clear communication channel with the board of leaders.

As process leaders, we endeavoured to address these issues early on by promoting transparency about the process, soliciting feedback, and involving everyone in defining how they wished to contribute and what their ideal collaboration setup would look like. We also extended invitations to participate in workshop preparations and encouraged attendance for reflections and synthesis sessions afterward.

Moreover, we scheduled frequent meetings with key leaders involved to provide updates on the process and discuss any challenges encountered. While this approach fostered a constructive and collaborative atmosphere and helped align various initiatives within the municipality, the pace of work was initially slower as trust needed to be established, roles and responsibilities clarified, and a common language established. Seemingly minor actions, such as transitioning from digital to physical meetings or the addition of a new employee to the software system experts team, significantly impacted the project’s progress and resource availability.

Despite noticeable improvements in collaboration throughout the process, we remain reflective on how we could have enhanced our efforts further and managed the complex, cross-sector teamwork in a better way. Edmondson and Harvey (2017) emphasise several key factors essential for fostering effective teamwork, including how leaders assemble teams, how they articulate a clear mission, establish goals and expectations, facilitate sensemaking, and provide constructive feedback. Additionally, it underscores the role of leaders in monitoring teams, challenging team members, promoting self-management, and cultivating a supportive social climate. This emphasises the critical importance of leadership in shaping the dynamics and performance of teams.

A recurring challenge observed in many public sector processes is the fragmented nature of leadership. Missions are often cascaded from the city council to agency leadership and then to intermediary figures like us. This begs the question: who ultimately bears responsibility for building and nurturing a cohesive team? Who assumes the role of leader? Moreover, when does a group transition from being mere collaborators to a cohesive team? Should the public sector adopt a more deliberate approach to team formation and management?

Perhaps, at the outset, greater emphasis could have been placed on establishing a shared understanding of our mission and empowering the team to collectively define goals and manage expectations. However, this raises further questions regarding stakeholder involvement. Were we tasked with facilitating this process, or was it the prerogative of the board of leaders who articulated the project goals by refining the brief? And why were we not included in that decision-making process? In a context characterised by busy schedules and competing priorities, these crucial conversations on team management and team alignment are often overlooked as the focus shifts towards expediency and productivity. Yet, the theory suggests that investing time in team alignment can yield faster and superior results (e.g. Shaw, 2003; Stacey, 2007).

Reflection: **In Which Position the Designer Finds Herself**

The hierarchical structure of organisations presents unique challenges for designers aiming to facilitate systems oriented design processes. Whether occupying positions of leadership or lower ranks within the hierarchy, designers encounter hurdles that can hinder effective facilitation.

On one hand, if the designer holds a leadership position, which often entails power, participants may feel compelled to adopt a pleasing attitude rather than engaging in open and honest dialogue. On the other hand, when the designer occupies a lower position in the organisational hierarchy, stakeholders may struggle to trust her role as a facilitator, especially when uncertainty looms and outcomes are difficult to predict. A low position in the hierarchy also implies effort to involve and convince key decision makers to take a part in the process.

One potential solution to this dilemma could be to formalise the role of a facilitator and weaver (of processes and social structures) within the organisation's structure. This could empower designers to focus on facilitating conversations, and with this building relationships, between stakeholders rather than to solely focus on product or service development. By assuming the role of facilitator, designers can suggest methodologies to address power dynamics and involve stakeholders in meaningful debates. Ideally, every intervention or project should begin with a facilitated conversation involving a diverse range of stakeholders to create shared understanding and meaning for the task at hand.

The role of the facilitator and/or weaver is influential, as they guide conversations and choose methods to foster shared understanding and new realities. While they are not neutral, facilitators are aware of their biases and potential impact and leverage methodological pluralism to maintain this awareness.

While the concept of designers as facilitators is still evolving, organisations like Origo are increasingly embracing this role. Despite the challenges of navigating chaotic or uncertain processes, there is a growing confidence in the value that can be derived from staying in the midst of chaos and uncertainty a little longer or just muddling through it (Lindblom, 1959).

Oslo Origo

Oslo Origo, is the digitalization agency for the municipality of Oslo and our employer. Origos goal is to deliver public services seamlessly, based on a vision called "Tim" (Oslo kommune, 2017). In this vision, citizens receive the services they need without having to apply for them. Origo focuses on digital product development and uses agile methods to deliver solutions quickly.

Origo has not worked with the service of financial assistance before but has been looking at starting a product area on social services. Since Origo has unique competence and ways of working within the municipality, they got the task to contribute to the health agencies work with the hope they can supply the work with more innovative and effective ways of solving the tasks.



Product Development

Product development is the process of creating a product from identifying a need to marketing it. This practice started with Toyota's Production System in Japan (Ohno, 2019), focusing on zero waste and continuous innovation. Toyota's method involved transdisciplinary teams with experts from different fields working together as decision-makers. This approach influenced many companies worldwide (Womack et al., 2007) and led to lean manufacturing.

Digital Product Development

Over time, these principles were applied to software and tech products, leading to methods like lean, scrum, and agile. Agile is now the most popular in tech, emphasising rapid testing, learning, and early flaw detection (Poppendieck & Poppendieck, 2003). These methods focus on delivering value to customers quickly and efficiently by continually improving based on user feedback.

The Health Agency (Helseetaten)

The health agency is the municipality's specialist agency in the area of health. Their areas of work include the emergency ward, dental health services, public health work and tasks related to care services and psychosocial services. They are also responsible for the operation and development of the municipality's software systems in the area of health and care. Among these is also the software system Fasit that is used for the case handling of financial assistance.

A team of administrators and developers works within the health agency with the operation and continuous improvement of Fasit.

City Council Department for Labour and Social Services

It is responsible for overseeing and supervising the production and administration of various social services, including financial assistance. This department provided the brief to the health agency, Oslo Origo, and the NAV offices, making them the clients of our project.

NAV Office

The NAV office is the single entry point for Norwegian welfare services, providing both municipal and governmental services. As a result, administration, budgeting, and the laws and procedures for supervision and complaints differ, depending on whether the service is governmental or municipal. The NAV office is responsible for the case handling and follow-up of financial assistance, which is a municipal service. In Oslo, each district has its own NAV office, operating under various organisational structures tailored to their local demographics and management styles.

In this project, four NAV offices from different districts in Oslo participated in our process when necessary to help us find answers to the brief.

Understanding the Service

What is Financial Assistance

Financial assistance is a public welfare service provided by NAV with the goal to assist citizens facing financial hardship. Financial assistance is often described as the welfare state's last safety net. It is required that citizens explore other options first, such as finding employment or utilising any other welfare benefits they may be entitled to such as pensions or financial housing support. However, if these options are not sufficient, financial assistance steps in to help citizens to maintain a decent standard of living. The support is intended to be short-term and can be provided for a maximum of up to six months continuously. After that period, citizens need to reapply if their financial situation has not improved.

Financial assistance is primarily administered by the local municipalities. Each municipality is responsible for managing and disbursing financial assistance budgets according to national guidelines. The NAV offices assess applications, determine eligibility, and provide financial assistance to citizens in need.

How it Works:

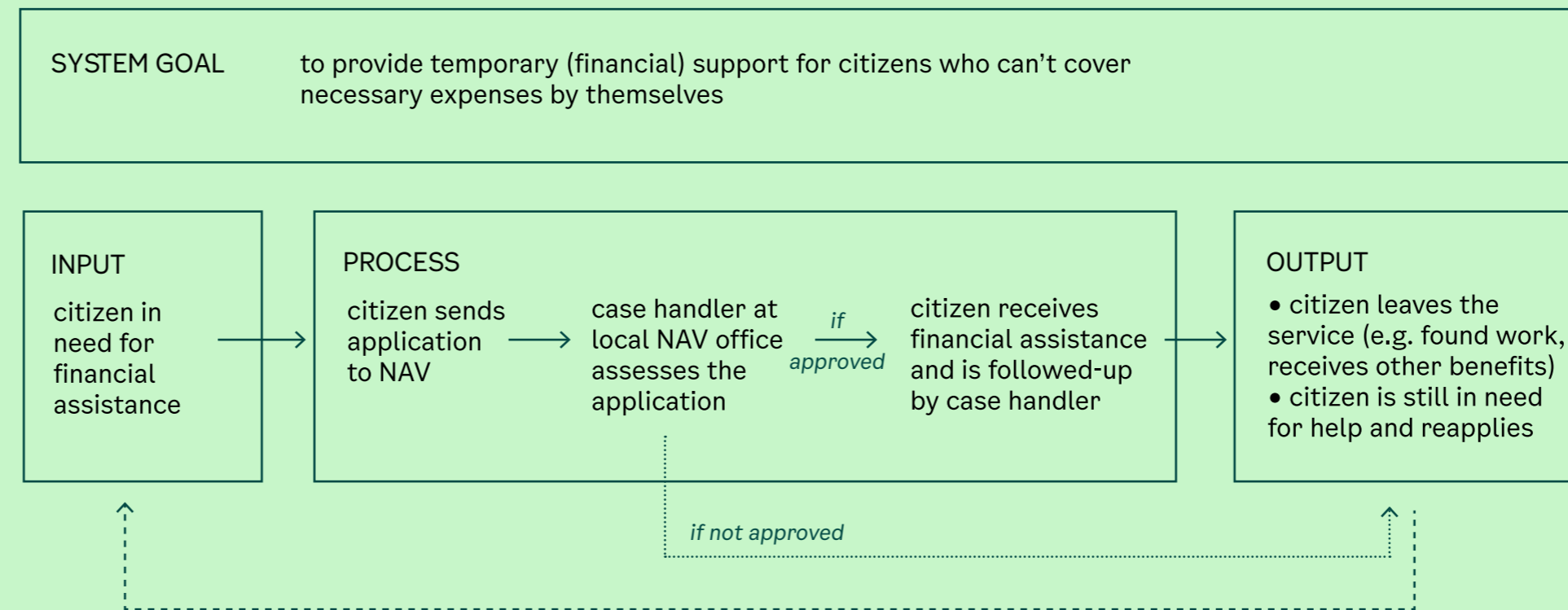
Application process: Individuals in need of financial assistance typically submit an application to their local NAV office. The application may require detailed information about the applicant's financial situation, household composition, income, expenses, and any assets they may possess.

Assessment of need and eligibility: A case handler at the NAV office assesses each application to determine the level of financial assistance required and the eligibility of the applicant. This assessment considers factors such as the applicant's income, expenses, debt, housing and family situation, and any other relevant circumstances affecting their financial stability.

Financial support: Once the application is approved, the municipality provides financial assistance to eligible individuals or families. The assistance may take the form of regular cash payments, assistance with rent or housing costs, provision of essential goods or services, or other forms of support tailored to the recipient's needs.

Support services: In addition to financial assistance, municipalities may offer support services to help recipients address underlying issues contributing to their financial difficulties. These services include counselling, budgeting assistance, job training, access to education, or referrals to other social support programs.

Review & follow-up: Users of the service undergo periodic reviews of their financial situation to reassess their eligibility and level of assistance needed. Case handlers also provide ongoing support and guidance to help recipients improve their financial stability and address any barriers to self-sufficiency.



Financial Assistance for Oslo in numbers - 2022

20.000 users

50% are considered to be longterm users, meaning that they have received the support for a longer period than 6 months

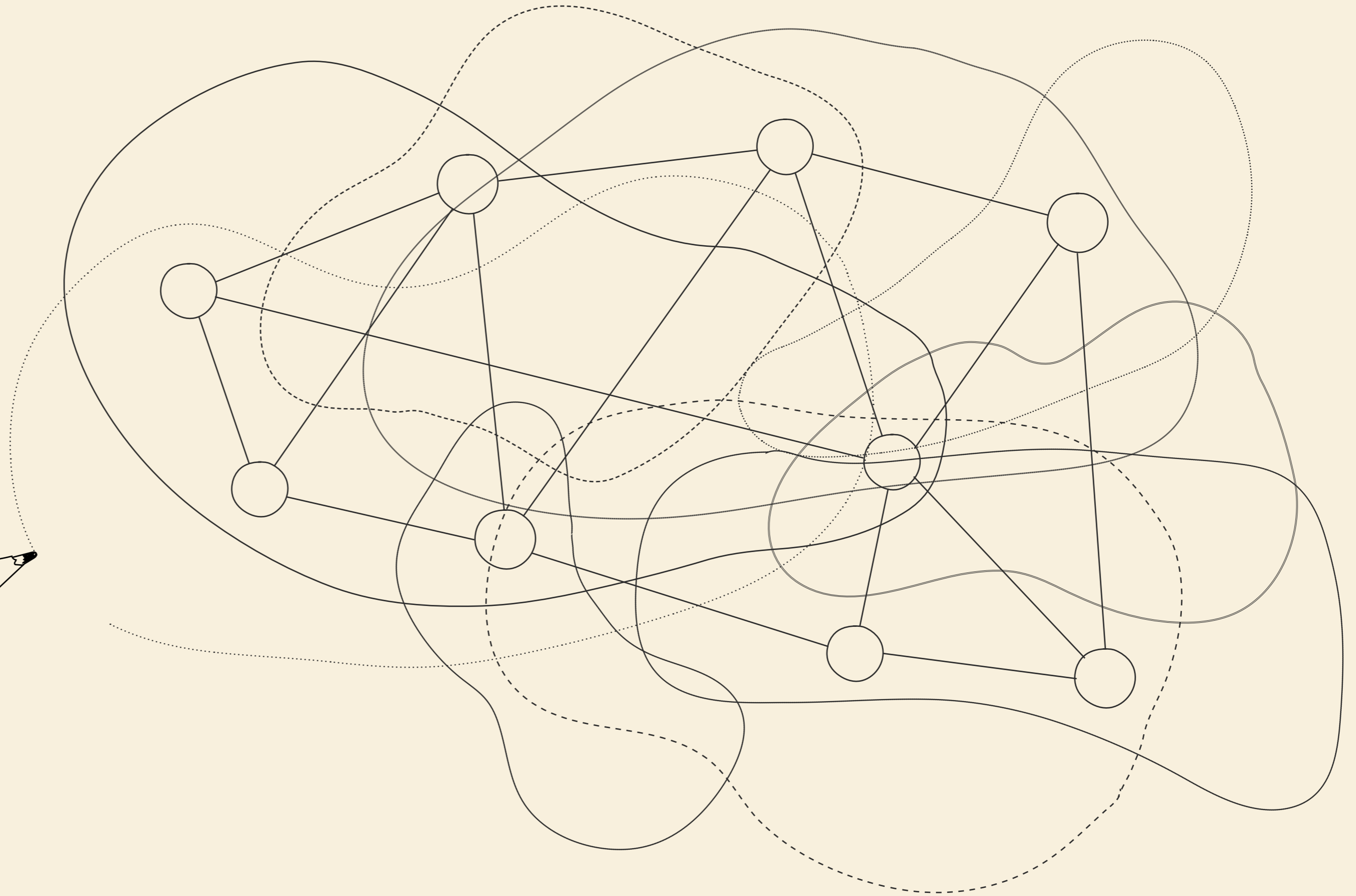
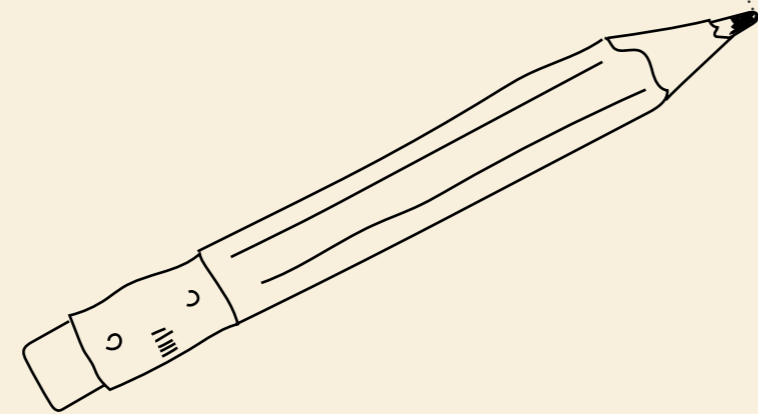
1,4 mrd NOK
Costs

Figure 4. A simplified systems model of financial assistance.

Why Systems Oriented Design

Understanding SOD ■ Our Contribution • The Complexity of **Financial Assistance** •
Theoretical Landscape ■ **Methodological Approach**

Now that you are familiar with the brief for the design project, we will dive deeper and explain what systems oriented design is and why we consider it to be relevant for addressing the brief. We will draw out (some of) the complexity of the service of financial assistance. We will then position our SOD thesis within the knowledge fields of design thinking and practice, systems thinking and practice and systems oriented design (and systemic design). We will also describe how we have used systems oriented design as our main methodological approach.



Understanding Systems Oriented Design

Systems Oriented design is an approach that integrates systems thinking into design practice. It focuses on understanding and addressing complex, interrelated issues by considering the broader context and interactions within a system. Systems oriented design is mainly concerned with design practice (Sevaldson, 2022). One may say that systems oriented design invites practitioners from all backgrounds to grasp the complexity of systems with the richness and visual tools of the design process. This helps practitioners to anticipate unintended consequences early on and to navigate and find design pathways through problematiques (see a definition of problematique in the next chapter).

The main methods of systems oriented design are gigamapping and rich design space (see chapter The Design Process). As mentioned above, these methods invite for visual explorations of the system, and aim not to control or simplify it (Sevaldson, 2022).

Systems oriented design is also described as a mindset, an expansion of the designerly ways of doing things. Sevaldson (2022) further defines five shifts of mindset that designers need to undergo in order to work systems oriented. These are:

The changes of mindset in systems oriented design (Sevaldson, 2022)

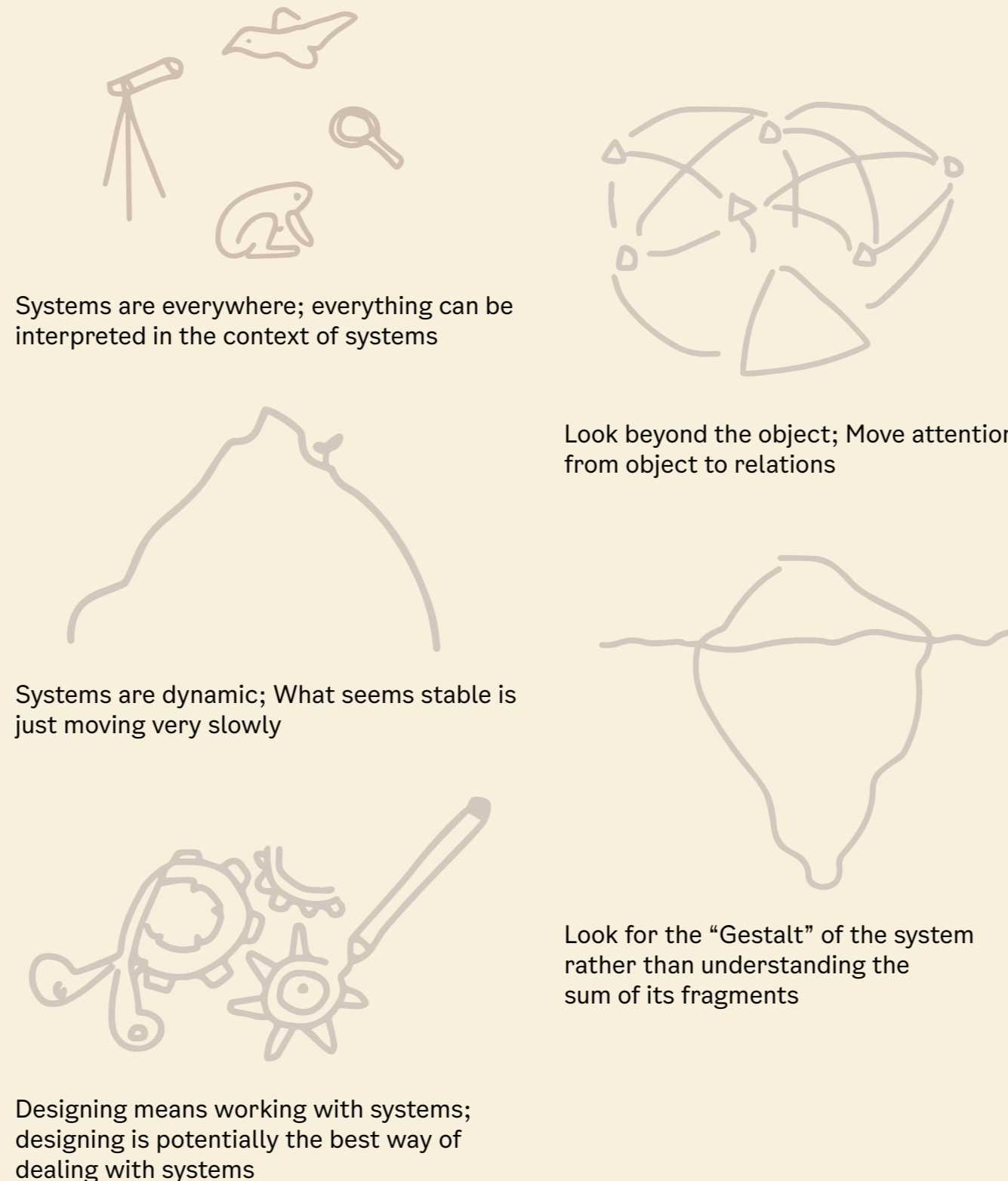


Figure 5. The changes of mindset in Systems Oriented Design (Sevaldson, 2022, p. 15).

Reflection: Why Systems Oriented Design to Work With our Brief?

Traditional management and design approaches are often characterised by linear thinking, reductionism, single-focus solutions, and lack of stakeholder engagement. Research has shown that these approaches work well for simple or complicated problems but fail when we move towards complex problems (e.g. Stacey, 2007).

The Cynefin framework (Kurtz & Snowden, 2003) provides an aid for reflecting on which kind of problem one faces and thus enabling decision makers to decide better ways to approach them. When we take a closer look at financial assistance, it becomes obvious that we face complex problems – a problematique as we will explain on the next pages.

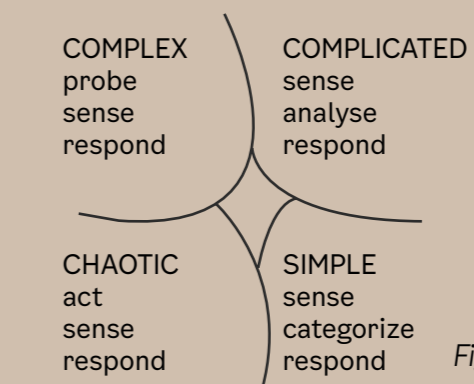


Figure 6. The Cynefin model after Kurtz and colleagues (2003)

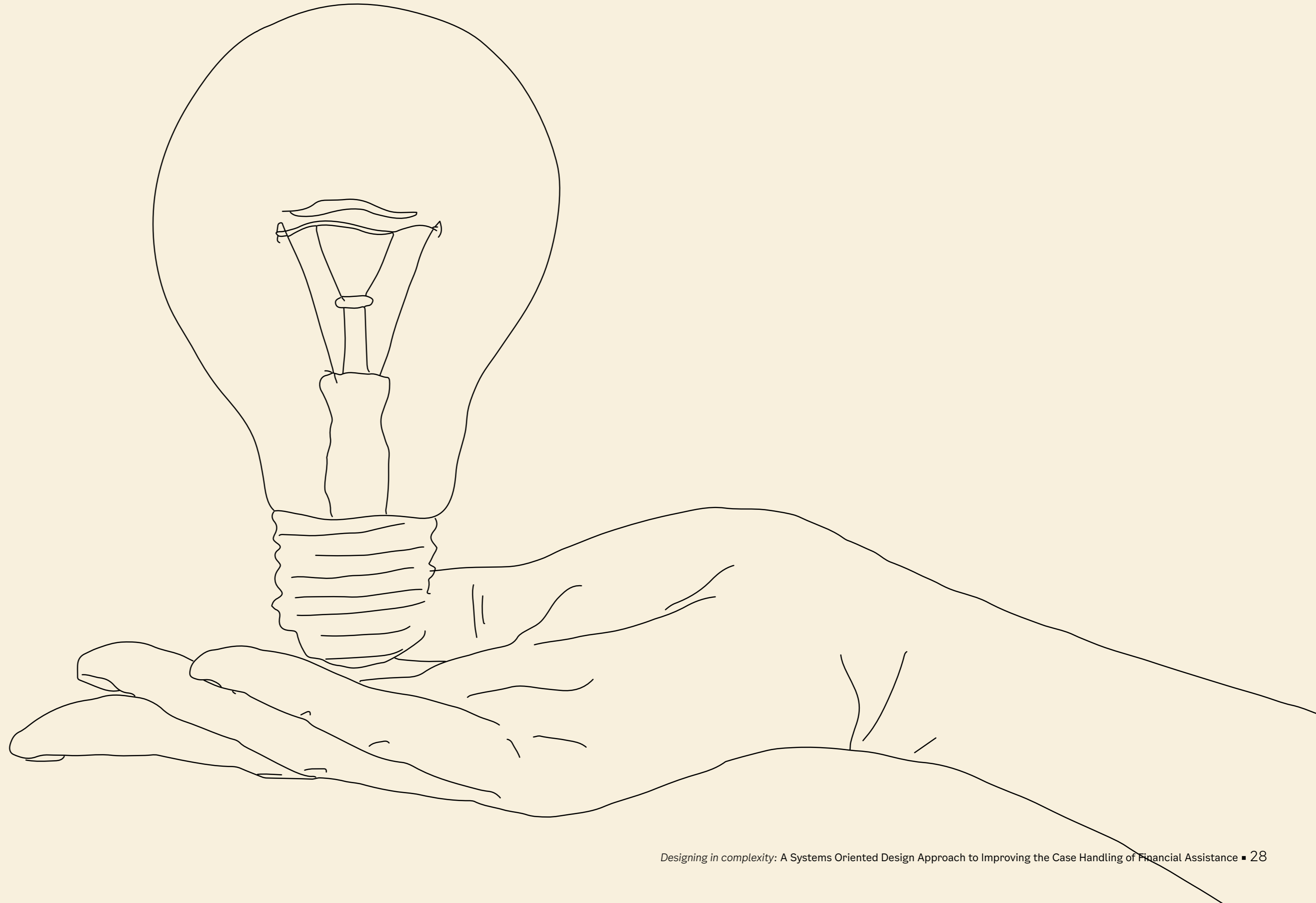
Agile methodology as we practise it at Origo, is considered to be a successful way of approaching complex problems. And indeed, it provides a responsive approach of probing, sensing and responding, where short iteration cycles guarantee the adaptiveness to change.

Still, we experience shortcomings of agile as it does not provide a holistic way of looking at the problem. Hence, it is not able to anticipate unintended consequences that occur over time or potential that lies outside of a defined scope. This is why we think it's interesting to test systems oriented design as an approach to work with the design project on financial assistance. After all, it is claimed to be potentially the best way of dealing with systems (Sevaldson, 2022).

Understanding **Our Contribution**

Acknowledging Birger Sevaldsons (2022) suggestions of changes in mindset we humbly perceive this SOD thesis as working with systems. It is a contribution to the knowledge field of systems oriented design (thus it also contributes to the field of systemic design and design in general). It adds insights on how the emergent framework of systems oriented design makes its way into design practice. By following one design project closely and reflecting on it, we show the potential as well as limitations of systems oriented design for our design practice.

We will now discuss the complexity that lies within the service of financial assistance. This will help the reader to understand why a systems oriented approach can be helpful when working with this service.



Exploring the Complexity of Financial Assistance

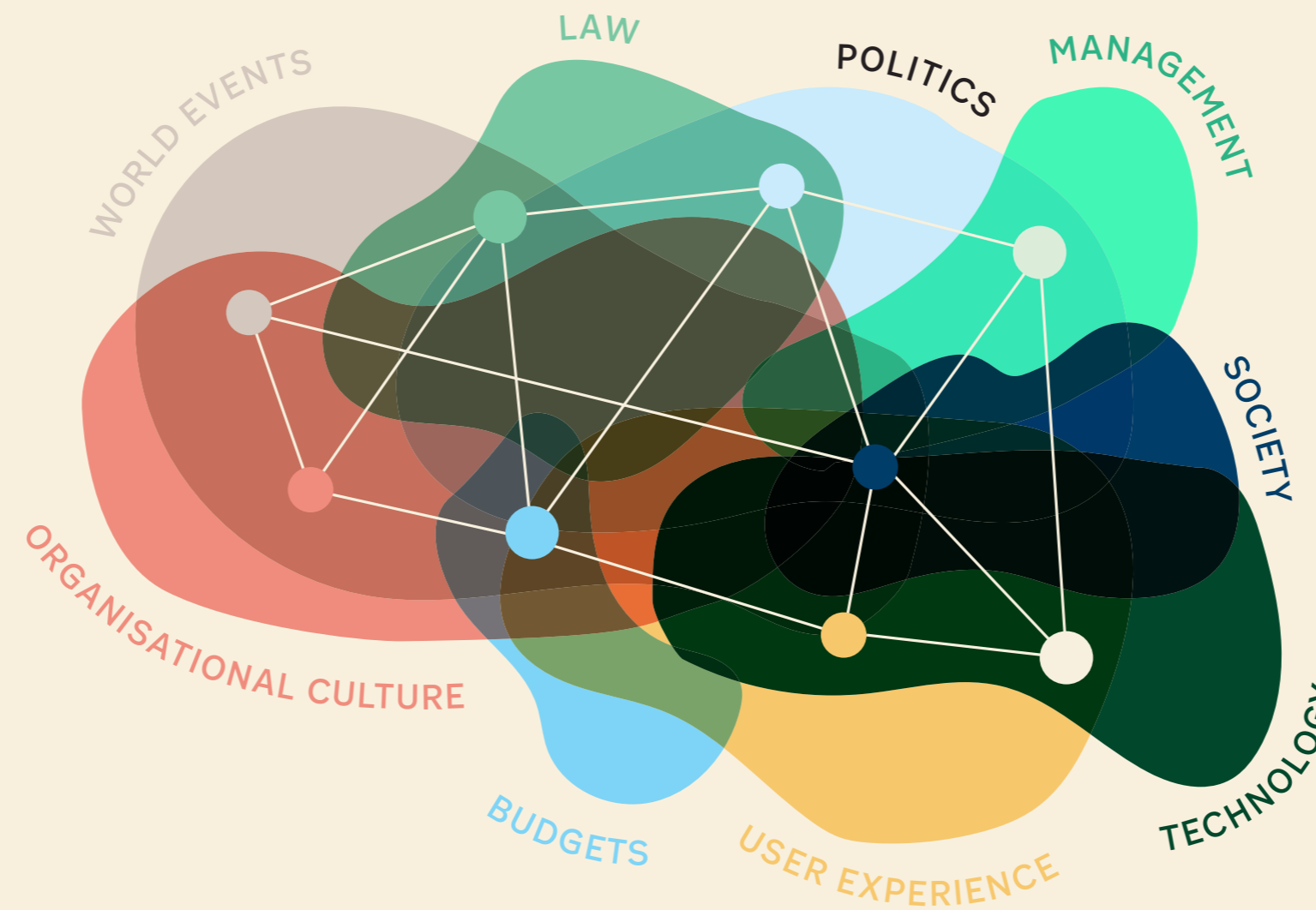


Figure 7. Visualisation of overlapping areas that are relevant when looking at financial assistance, each containing various interconnected problem areas.

i What is a Problematique?

The term *problematique* was coined and popularised by the Club of Rome in the 1970s (Meadows et al., 1972). Birger Sevaldson (2022) describes a *problematique* “as fields of problems (derived from the Norwegian word, “*problemfelt*”), or networks of interlinked problems or systems of problems. These are themes of interrelated or similar problems that define a field of investigation. Solving singular problems in such a field can make other problems worse, or cause new ones to emerge. The problem of problems is one of the major challenges to contemporary design.” (p. 84)

The service of financial assistance sits within a field of interconnected problems, also called a *problematique*. It is foremost a social system, which is an open system, that has dynamic complexity, and operates in turbulent and ever-changing environments (Banathy, 1996). According to Banathy (1996), social systems are unbounded, and there is no magical fix to them, as we don’t face one problem but multiple intertwined ones.

It was Michael Lipsky who coined the term *Street level bureaucracy* (Lipsky, 1980). *Street level bureaucracy* refers to the frontline public service workers who directly interact with citizens on a daily basis. Case handlers of financial assistance are a good example for them. They operate within a complex web of organisational and systemic constraints, which significantly influence their behaviour and decision-making processes. According to Lipsky these constraints include

Resource constraints: Case handlers often work under conditions of limited resources, including time, funding, and staffing. These constraints impact their ability to provide high-quality services and may lead to trade-offs in decision-making.

Organisational rules and norms: Case handlers must navigate the formal rules and informal norms of their organisations, which dictate to a certain degree how services are delivered. These rules and norms shape their behaviour and discretion, influencing their interactions with clients.

Political and legal pressures: Case handlers are subject to political and legal pressures from both within and outside their organisations. Political priorities, changes in legislation, and public scrutiny can all impact their decision-making processes and priorities.

Client characteristics: The characteristics and behaviours of the clients also influence case handlers’ decisions. Factors such as socioeconomic status, cultural background, and individual needs can shape how services are delivered and accessed.

Overall, Lipsky emphasises that street-level bureaucrats operate within a dynamic and complex system, where their actions are shaped by a combination of organisational, political, and interpersonal factors. Understanding these influences is crucial for policymakers, administrators and designers seeking to improve the effectiveness and equity of the service. We will dig deeper and highlight some of the major influences we identified for the service of financial assistance.

Firstly, on the brief: Focusing merely on streamlining the case handling of financial

assistance, might cause problems in other parts of the system. The assumption underlying the design brief suggests that enhancing the service requires that case handlers have more time to follow up the users. But it doesn't say much about what the citizen actually needs. Digitalisation is seen as a means to make the case handling more efficient and thus freeing up time. However, the veracity of this assumption remains unverified. In accordance with Lipsky, we believe it is important to look into the relations and interactions within and between different key elements of the service. Some of which are:

Law ■ Pertaining to the legal norms and regulations that citizens and case handlers must understand and adhere to.

There are numerous norms and regulations that must be considered when handling cases for financial assistance. These norms and regulations vary in importance for understanding and influencing changes in the system. For instance, it is essential to understand and adhere to primary laws such as the Social Services Act (Sosialtjenesteloven – sotjl, 2009), the Public Administration Act (Forvaltningsloven – fvl, 1967), and the National Insurance Act (Folketrygdloven - ftrl, 1997), among others. The interpretation of these norms is outlined in documents like The Circular to the Act on Social Services in NAV (Rundskriv til Lov om sosiale tjenester i NAV, 2012) or the Guide on Financial Benefits According to the Social Services Act (NAV, 2022).

Additionally, politicians and policymakers frequently introduce new strategies and reforms to make their mark. One such example is the trust reform initiated by the federal government, emphasising the importance of trusting frontline workers' competence within public sector leadership (e.g. Om tillitsreformen Spørsmål og svar om tillitsreformen, 2022). Building on this, NAV extends the reform to cultivate trust between frontline workers and citizens (NAV - Arbeids- og velferdsetaten, 2022).

Case handlers thus find themselves striking a delicate balance between the trust reform, the law and supervisory mechanisms designed to ensure procedural adherence.

“But this is about privacy and regulations which is something that NAV struggles with, and everyone struggles with.”

Bureaucrat from the ministry

Furthermore, in order to work with the diversity of user needs, the law is based on discretion, thus guaranteeing each citizen to be accessed based on their individual situation. However, this leads to confusion and frustration, as citizens lack transparency regarding available support. It also places substantial responsibility on case handlers who are asked by law to thoroughly map the citizens' situation and for this request documentation. Consequently, many citizens feel scrutinised and mistrusted in the process while case handlers are afraid to provide assistance based on a wrong assessment.

Organisational culture(s) • Encompassing the organisation's structure, routines, rules and collaborative efforts to deliver services.

“We are parking people on financial assistance because we can't find alternatives.”

Case handler

Today, the financial structure within the municipality allocates budgets for each NAV office, which may turn out as a deconstructive factor for building collaboration across offices. And even though the service is intended to be only short term, around 50% of the service users in Oslo are considered to be long term users. Case handlers describe that they have to retire users on financial assistance, often because of a lack of alternatives or a lack of resources to find better alternatives.

Technology ■ Relating to the digital systems developed to facilitate the application process and case handling, their functionality, and the value they add to the process.

Due to the fragmentation of NAV services and the duty of confidentiality, NAV employees have to log into up to 12 different software systems on a daily basis and need to be cautious about what data can be shared in which systems. The information for municipal services can't be shared in software systems for governmental services due to restrictions by law and with the aim to protect the most vulnerable citizens. Since many users of financial assistance receive several services from NAV simultaneously, this leads to information about users being fragmented which again causes inappropriate help and follow up by NAV.

The technological development moves fast and many services like banking have become highly digitised in recent years. As a result citizens expect public services to follow along. At the same time, the digital competence of users of the service varies, as well as the access to digital resources such as the internet or Bank ID. This is why NAV needs to provide both analogue and digital entrances to the service.

Individuals • Reflecting individual activities and decisions that influence the delivery of social aid, shaped by personal beliefs and experiences.

Recipients of financial assistance span diverse demographics, including single parents, large families and individuals of all ages. For parents with multiple children, finding employment yielding more than welfare benefits poses a challenge, and they might fear losing benefits upon securing employment. Many users encounter furthermore difficulty finding work, often due to insufficient skills and education. Employers may as well discriminate against those trying to re-enter the workforce after years of absence. At the same time, the job market offers few opportunities tailored towards individuals with complex needs, such as health-related issues.

“If I have to talk to someone, they need emotional intelligence.”

Citizen with experience from financial assistance

Users of the service face diverse and demanding circumstances: some are refugees encountering language and cultural barriers when interacting with service providers; others subsist on meagre pensions or incomes insufficient to meet basic needs. Some struggle with health issues, such as chronic pain or addiction, yet do not qualify for other more permanent welfare services, thus relying on financial assistance. Despite receiving other welfare services, some users still struggle to cover living expenses. If a user receives multiple services from NAV, the payments are not synced which leads to confusion and potentially cuts in payouts. At the same time, they have to tell their story again and again as they meet various representatives of the system. Those meetings depend on many factors including chemistry between people and can either help create comfort and trust or the opposite.

Society • Meaning the underlying values, norms and paradigms that influence the service.

Our capitalist society values people who are working, are independent and who accumulate wealth. The welfare state is furthermore dependent on income through taxation. Societal perception often stigmatises recipients of social benefits as lazy, or unwilling contributors to the welfare state. Applicants may experience shame and fear of this stigma associated with seeking assistance from NAV, which delays their help-seeking until debt accumulates and their situation worsens. This stigma also fuels polarised political debates, which again can lead to applicants experiencing even more stigma as they may read negative or aggressive headlines in the newspaper.

Politics • Concerning political inclinations influencing resource allocation and problem-solving efforts related to the service.

The inherently political nature of the service centres on questions of redistribution: how public money should be allocated. To find employment should be more attractive than to receive social benefits, yet a welfare state wants to ensure a decent living standard for all citizens. And in a country where there is no minimum wage – how to ensure that citizens earn enough to cover their living costs in times of inflation? Where some political parties advocate for universal basic income, others propose stricter eligibility criteria. As predictions of public spending cuts loom, balancing increased spending on financial assistance, prompted by factors such as the war in Ukraine or inflation, presents a government dilemma. Financial assistance is thus closely tied to political values and hence bringing design suggestions to the table entangles the designers in a political layer of the system.

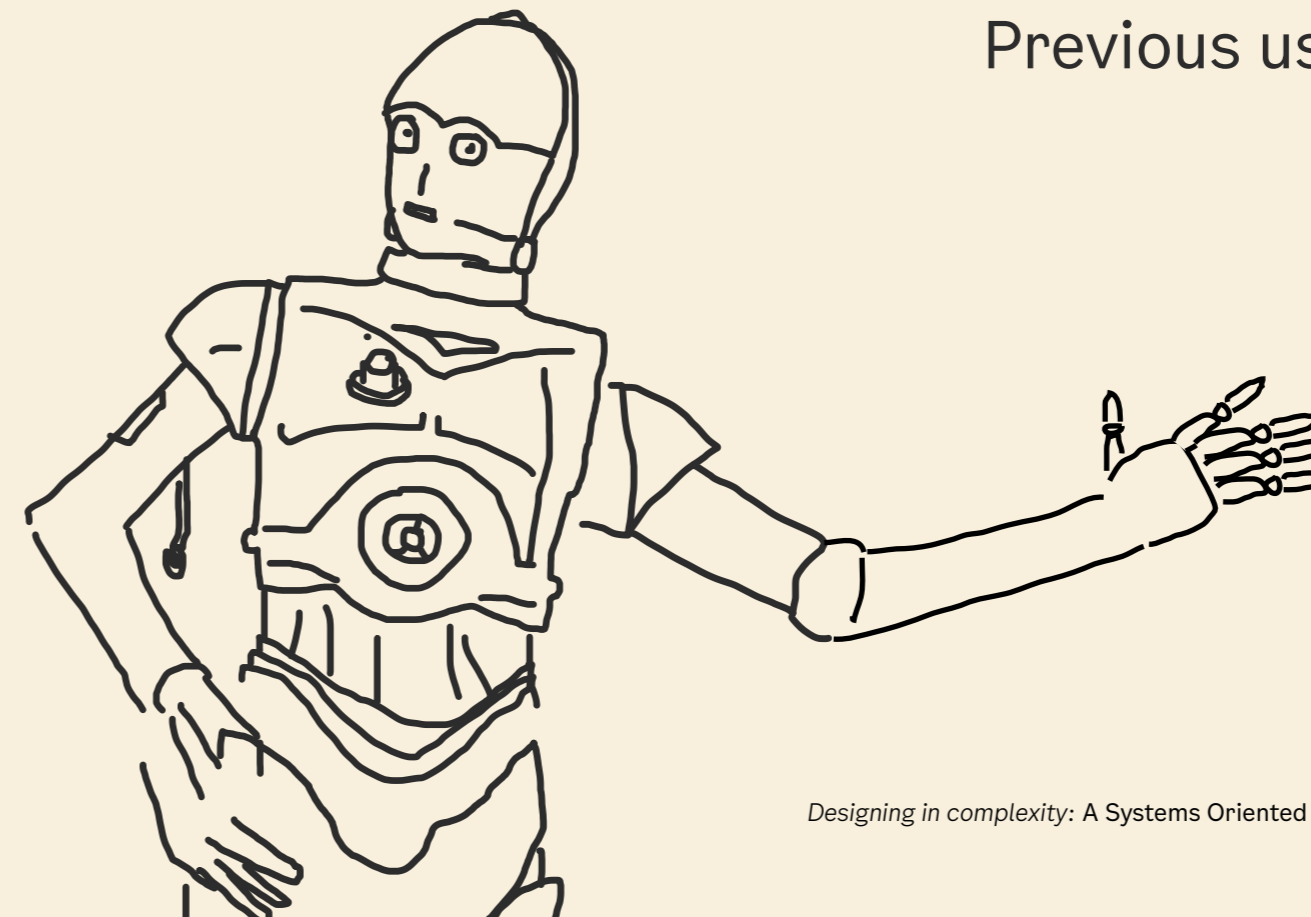
We hope that you have gotten an idea for why a systems approach is relevant and can be supplemental when working with the service of financial assistance. We will now show some of the gigamaps that capture aspects of the complexity described and we will then position our SOD thesis within the knowledge fields of design thinking and practice, systems thinking and practice as well as systems oriented design (and systemic design).

“It is very difficult politically because we are talking about redistribution. It is very demanding and therefore it often runs aground.”

Bureaucrat from the ministry

“I had two different case handlers. One had empathy, it felt like I was speaking to a human being. It felt like I am not alone, someone will help me here. The other felt like talking to a robot. It felt like they looked down on me.”

Previous user of financial assistance



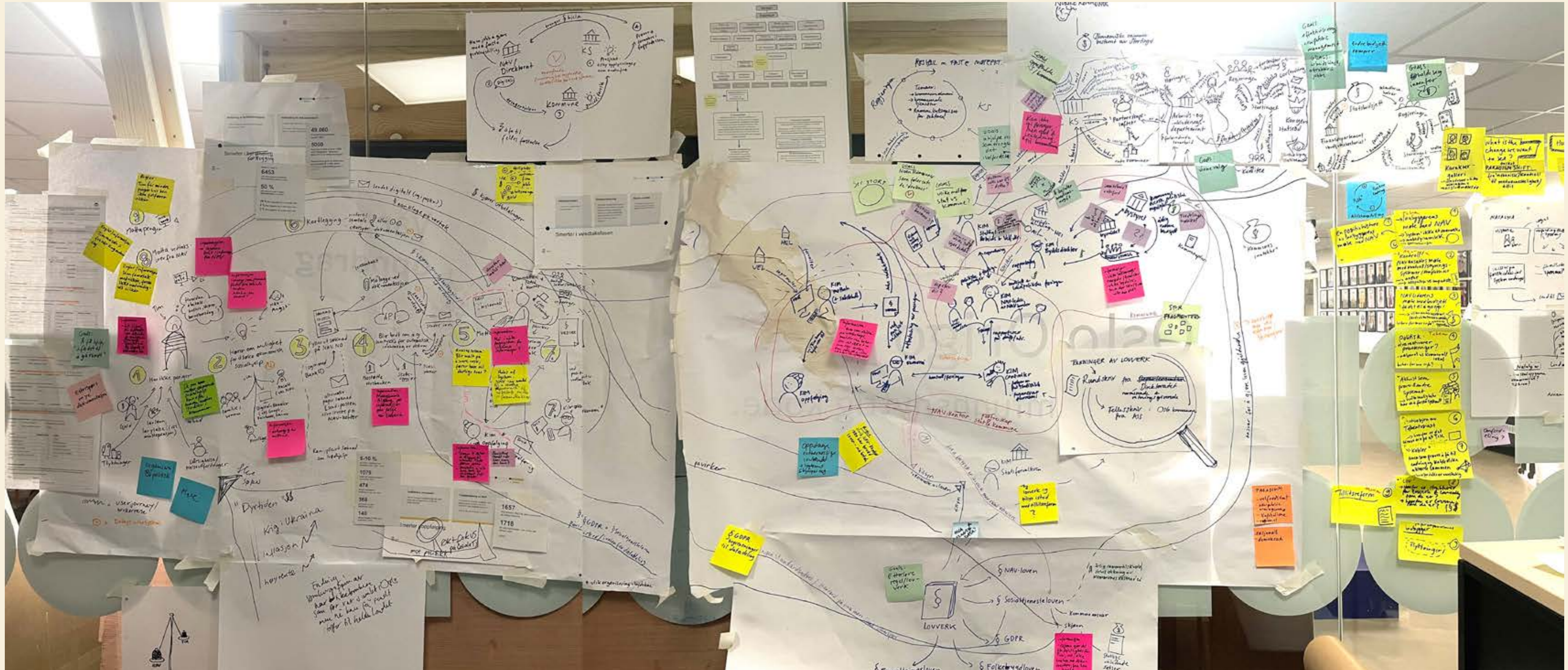
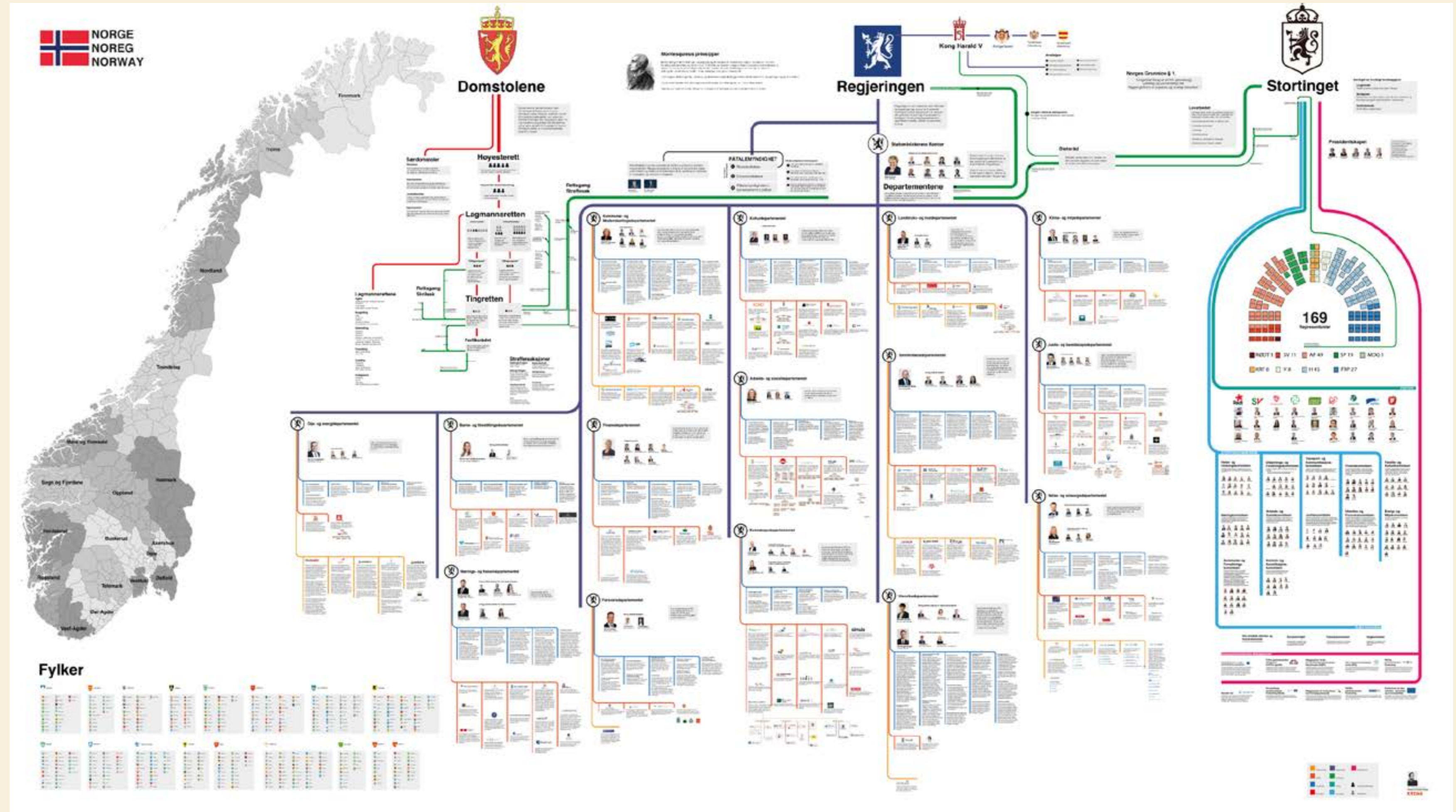
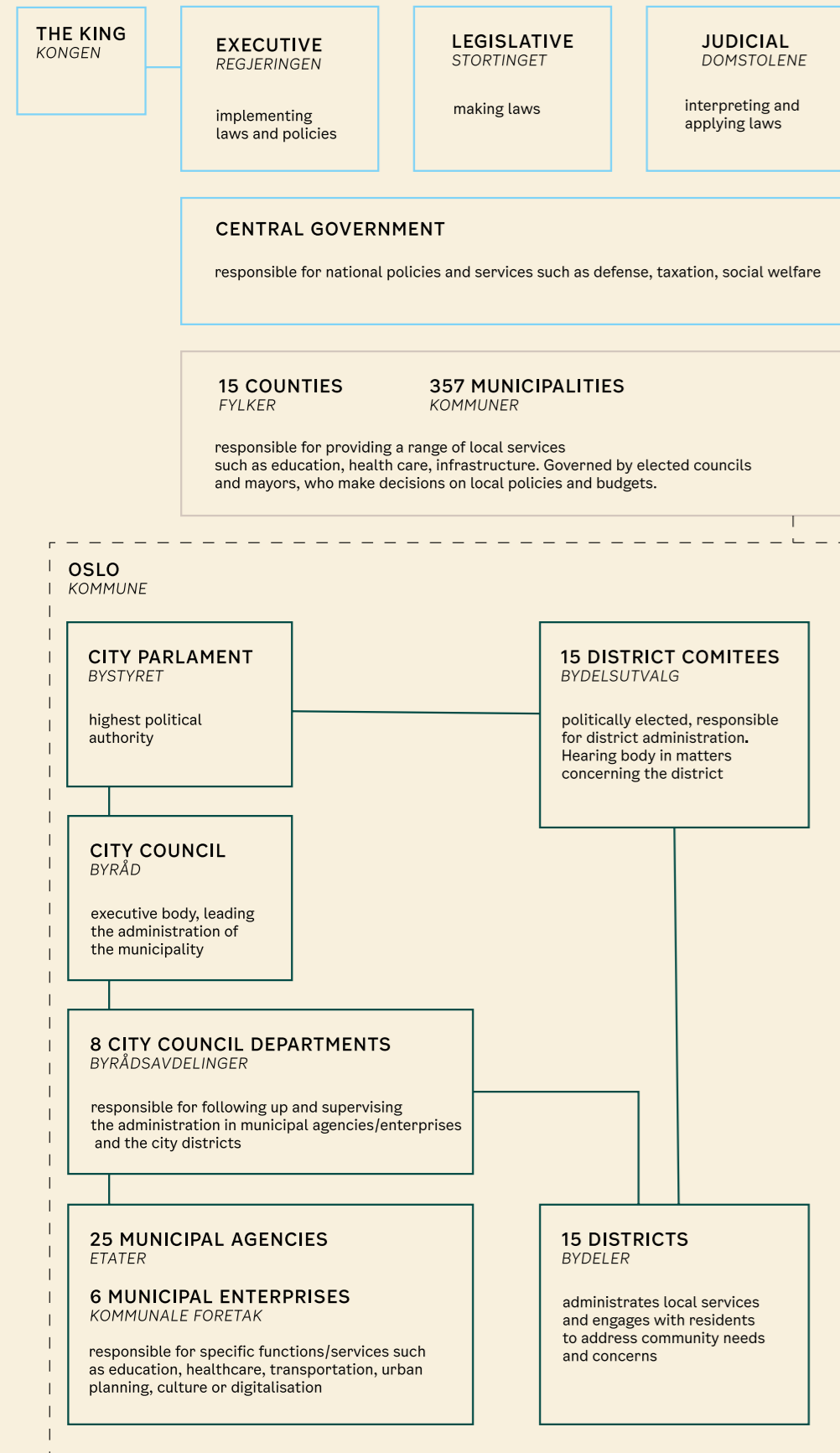


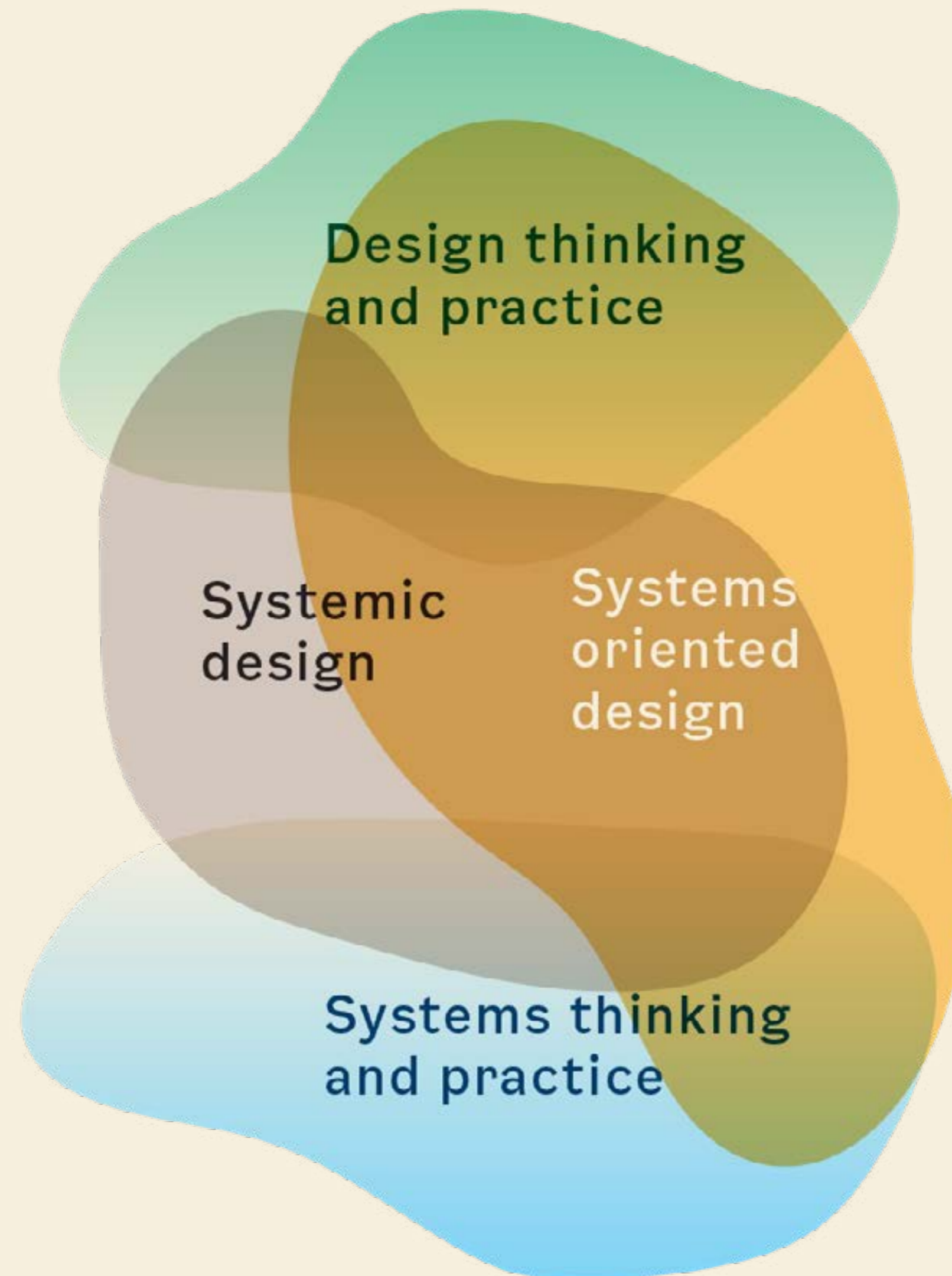
Figure 8. First draft of a gigamap to understand the complexity of financial assistance and how different elements are connected. A big variety of gigamaps were created during the entire process as a way to question boundaries and navigate the system. They can be found in: Appendix C-C8 – Gigamaps (Vedlegg 2 - Gigamaps.pdf)

Figure 9 (right side). The Norwegian Government mapped (Boxaspen, 2018). This visualisation conveys the complexity of the government in Norway.

Figure 10 (below). A simplified version in order to facilitate the understanding of the context for the reader who is not too familiar with the organisational structure of the public sector (in Norway).



Positioning within **the Theoretical Landscape**



This SOD thesis is situated at the intersection of systems thinking and practice, design thinking and practice, and systems oriented design (considered a dialect within systemic design). Although the social welfare system provides an important context, it serves primarily as a backdrop for testing and reflecting on our approaches to working with complexity. Therefore, we have chosen not to focus on the knowledge field of social welfare and social services.

We will provide a brief explanation of each knowledge field. As we have already explained systems oriented design, we will not describe it here, although it plays a major role in our theoretical framework. Throughout the text, we will delve deeper into relevant concepts and theories to connect theory with practice.

Following the short introductions to the knowledge fields we will provide more in depth insights on how we have integrated systems oriented design in our design practice, starting by explaining our methodological approach.

Figure 11. The knowledge fields that our work sits within.

i What is Design Thinking?

Design thinking is a human-centred approach to problem solving. It seeks to understand the perspectives and needs of end users and suggests improvements through an iterative process of research, synthesising, ideation, prototyping and testing. Design thinking moves through phases of convergent and divergent thinking and it can be applied to a wide range of challenges and contexts, from product to service design to organisational change and social innovation (e.g. Rowe, 1987; Schön, 1983). Design thinking has been promoted as a powerful practice for bringing social innovation and addressing wicked problems in the public sector (Brinkman et al., 2023; Brown & Wyatt, 2010; Junginger, 2013).

Design practice applies design thinking principles and techniques to conceive, develop, and implement designs that effectively meet user needs and achieve desired outcomes.



Figure 12. The double diamond. Probably the most known visualisation of the design process.

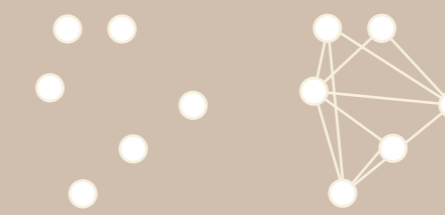
i What is Systems Thinking?

“Systems Thinking is the philosophy, art, and science of interconnectedness” (Sevaldson, 2022, p. 14). It has undergone significant development since it emerged in the mid-20th century and has been influenced by multiple disciplines such as biology, engineering and sociology. Thus, it offers a broad range of theories and practices, each of which can help to understand, analyse and intervene in the interdependency of relationships that make a system. A system consists of various parts or elements that are interdependent and interact with each other. In system thinking there is an increased focus on the emergent properties, which is the result of interaction of the system as a whole rather than the interaction of one or two of its parts in isolation (Midgley, 2000). This means that the system is more, or different, than the sum of its parts.

There is a huge variety of different systems. Since this work is primarily focused on social systems that do not have a defined boundary and where properties and behaviours can't be predicted, it is informed and inspired by systems theories and concepts such as critical systems theory (Ulrich, 1983), soft systems methodology (Checkland, 2000), systemic Interventions (Midgley, 2000), social systems design (Banathy, 1996) and autopoietic systems (Maturana, 1975).

Systems practice promotes a deeper understanding of complex systems and develops strategies and interventions. It is applied across various domains, including environmental management, public policy, organisational development, and social change.

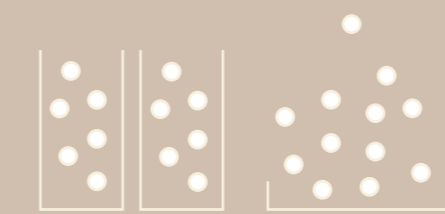
THE CHANGES OF MINDSET IN SYSTEMS THINKING:



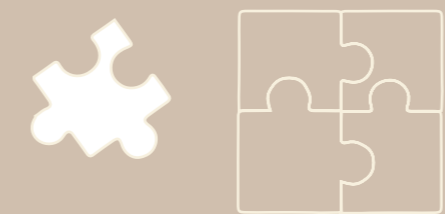
from disconnection to interconnection*



from linear to circular*



from siloes to emergence*



from parts to wholes*

Figure 13. The changes of mindset in systems thinking. Adopted from Acaroglu (Disruptive Design, 2017).

i What is Systemic Design?

Whereas systems thinking is a broader mindset and set of concepts, theories and practices, systemic design is the specific application of the principles of systems thinking within the context of design (e.g. Jones, 2014; Nelson & Stolterman, 2012; Ryan, 2013; Valtonen, 2010). It is an emerging field that uses a pluralistic approach and is thus not being tied to specific theories or practices. Systemic design is distinguished from “service or experience design in terms of scale, social complexity and integration. Systemic design is concerned with higher order systems that encompass multiple subsystems. By integrating systems thinking and its methods, systemic design brings human-centred design to complex, multi-stakeholder service systems.” (Jones, 2014. p.2)

The design council (Drew et al., 2021) distinguishes between systems-conscious design, which is about designing with being conscious about unintended consequences in other parts of the system, and system-shifting design which aims to shift systems into a desired direction.

Understanding the Methodological Approach

Praxeology: Selecting a Project

This thesis is situated in praxeology which is described by Selvadson as “*the study of how methods are applied in practice... The term praxeology refers to practice, experience, and tacit knowledge that are externalised and systematised in a tool chest or library. It is not prescriptive, but suggestive. It is offered, rather than prescribed. Compared to a methodology, it is not describing procedures that are repeatable. Instead, it describes heuristics, experiences, and problematiques in the practice.*” (Sevaldson, 2022, p. 324)

Design is tightly linked with praxeology and in order to really learn and embody the ideas we have been presented to through studying SOD we believe that we need to put them into practice. Therefore we looked for a chance to experiment with practising SOD within the context of Oslo Origo. We chose to follow the design project on financial assistance due to the complexity of the landscape that it sits in. At the same time, all three of us were able to participate in the process from the (relative) start. This was important for us since we wanted to be able to work together and build and discuss our understanding throughout the process.

Systems Oriented Design and Methodological Pluralism

Throughout the project, we have used systems oriented design as our main methodology. It is intentionally vague, encouraging “*a designerly approach that allows for ‘free-styling’ when visualising and analysing systems*” (Sevaldson, 2022, p. 325). We view systems oriented design not as a form of problem-solving but as a way of perceiving a problem that strongly influences how we design for it. It is important to acknowledge that systems oriented design differs from other scientific methodologies. As Banathy (1996, p. 168) states, “*Design is about pattern making, whereas science deals with pattern recognition (Levin, 1966). The pattern that the designer creates is perceived to be appropriate but cannot be proved to be right (Jones, 1980).*”

We also find Banathy's (1996) writings on the term “systemic” relevant for highlighting why we chose methodological pluralism for this thesis (Midgley, 2020): “*Systemic relates to the dynamic interaction of parts from which the integrity of wholeness of the system emerges. Systemic also recognizes the unique nature of each and every system. It calls for the use of methods that respect and are responsive to the uniqueness of the particular design situation, including the unique nature of the design environment*” (p. 57). Donald Schön (1983) adds that every practice situation is unique, noting that “*complexity, instability, and uncertainty are not removed or resolved by applying specialised knowledge to well-defined tasks*” (p. 19).

Designing within a social system, we have considered how different actors can be influenced by various methods or prompts. This approach invites diverse voices to engage in discussing complexity and (re)designing elements of the service (Eriksen, 2014; Nelson & Stolterman, 2012).

Scope // Boundary Critique

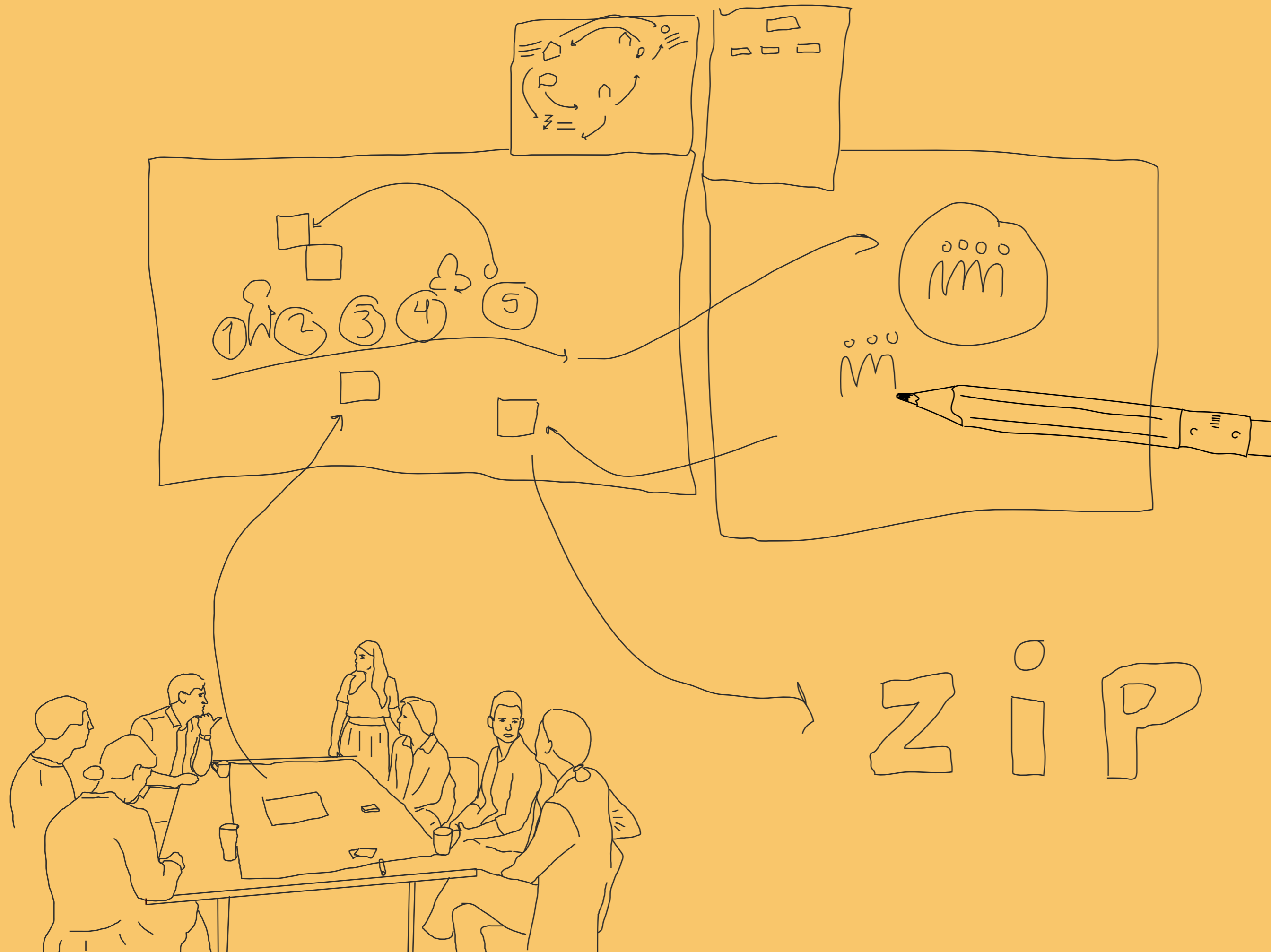
At Origo, we often encounter a fear of the analysis trap: the concern that processes may become bogged down in an endless pursuit of insights. Instead, there is an eagerness to code, build MVPs, test, and learn. In such an environment, the complexity and potential details to explore in a systems oriented design-inspired project can seem overwhelming. As systems oriented designers, we need to be able to zoom in and out and provide compelling arguments for when it's necessary to widen the boundaries. This can be particularly challenging for novices in systemic design, like ourselves.

Unfolding the systems connected to financial assistance opens many paths for further exploration, but to avoid getting lost and to be able to bring design suggestions to the table, many paths have been left unexplored. For example, financial assistance is closely linked to poverty, which could have been a relevant topic to explore further. One could argue that focusing more on preventing people from needing financial assistance would be more efficient than trying to make the process of case handling less time-consuming. However, we decided not to look into preventive measures as it would have exceeded the time and resources available.

In the following section, we will describe some of the methods used and our learnings and reflections on applying them in practice.

The Design Process

Desktop Research and **Rich Design Space** ■ Collecting Insights and **Fostering Conversations** • Summarising Findings and **Questioning Boundaries** • Multi-actor Workshops and **Shared Sensemaking** ■ Analyzing Findings and **Exploring Relations**



In this chapter about the design process and the next chapter about our design delivery, we will delve into the process we underwent to address the given brief while incorporating and reflecting on the knowledge gained from the SOD master's program.

Design process and SOD reflections

In this chapter about the design process and the next chapter about our design delivery, we will delve into the process we underwent to address the given brief while incorporating and reflecting on the knowledge gained from the SOD master's program.

To guide your understanding, we want to explain how we have divided the design process. We divided the process into the following stages:

1. Desktop research
2. Collecting insights
3. Summarising findings
4. Multi-actor workshops
5. Analysing findings and identifying opportunities
6. Presenting findings and opportunities
7. Design pathways

Each of these stages have a section where we use concepts from systems oriented design to reflect on the activities that we carried out. These reflections are crucial as they allow us to consider how the learnings from SOD have helped us approach the design process in different ways. The reflections revolve around the following concepts from SOD:

1. Rich design space
2. Fostering conversations
3. Questioning boundaries
4. Shared sensemaking
5. Shared understanding
6. Exploring relations
7. Continuous interventions

As a result, every title of this chapter is named in this way:

1. Desktop research and **Rich design space**
2. Collecting insights and **fostering conversations**
3. Summarising findings and **questioning boundaries**
4. Multi-actor workshops and **shared sensemaking**
5. Analysing findings, identifying opportunities and **exploring relations**
6. Presenting findings, opportunities and building **shared understanding**
7. Presenting design pathways and **continuous interventions**

We hope that this explanation will make your reading more comfortable.

Overview over the process

Banathy has said that “no fixed model is complex enough to represent the real-life complexities of the design process.” (Banathy, 1996, p. 56) We agree that it is difficult to provide even a simple overview over the process and the methods we chose in our project. The real process has certainly been more messy than this, however we want to give you an overview over some of the key activities we conducted and why we have chosen them. The use of some methods was intentionally planned, others were swept in more spontaneously as a form of reflection in action (Schön, 1983), thus trusting the system principle of emergence, intuition and following a more systemic approach to the use of methods.

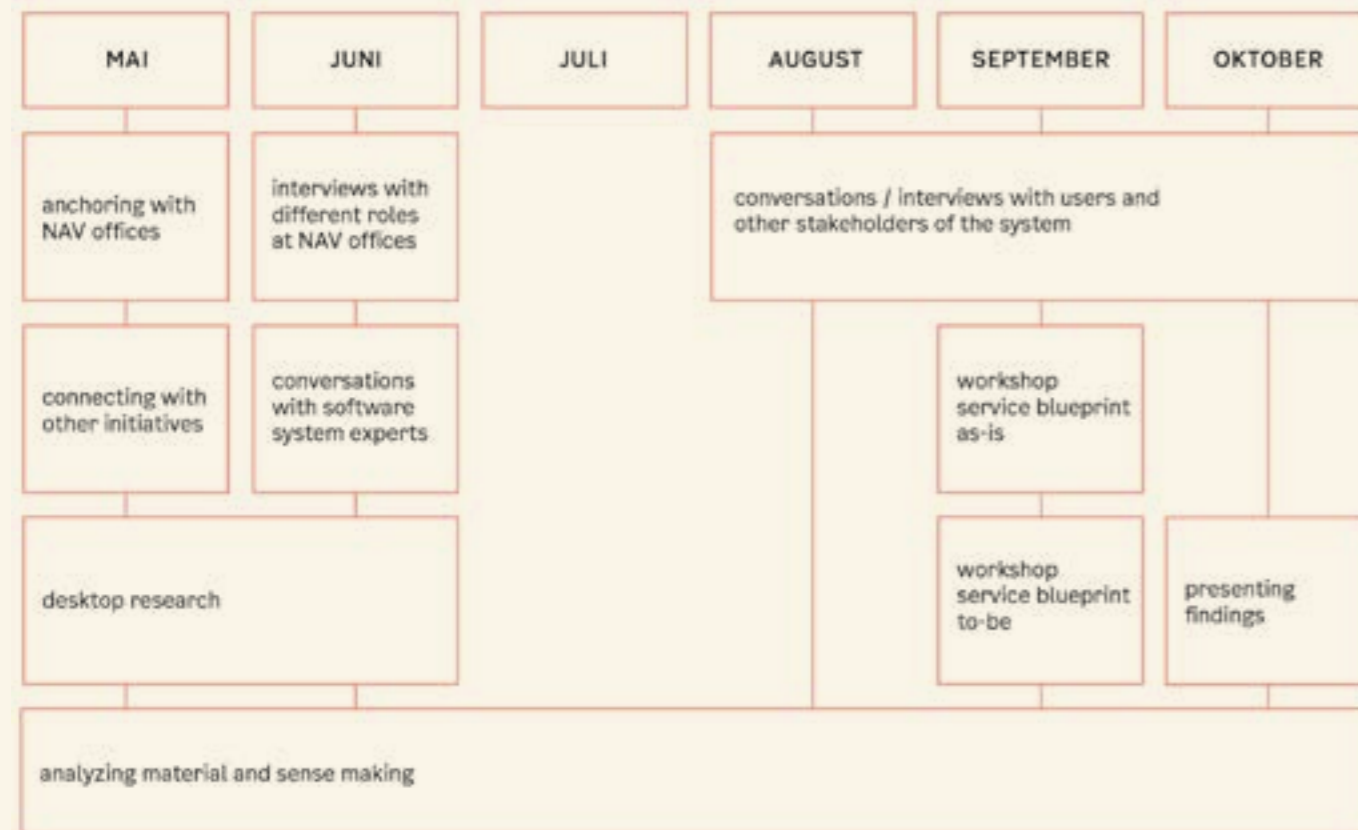


Figure 14: An overview over some of the key activities we conducted.

Overview over the process from a SOD mindset

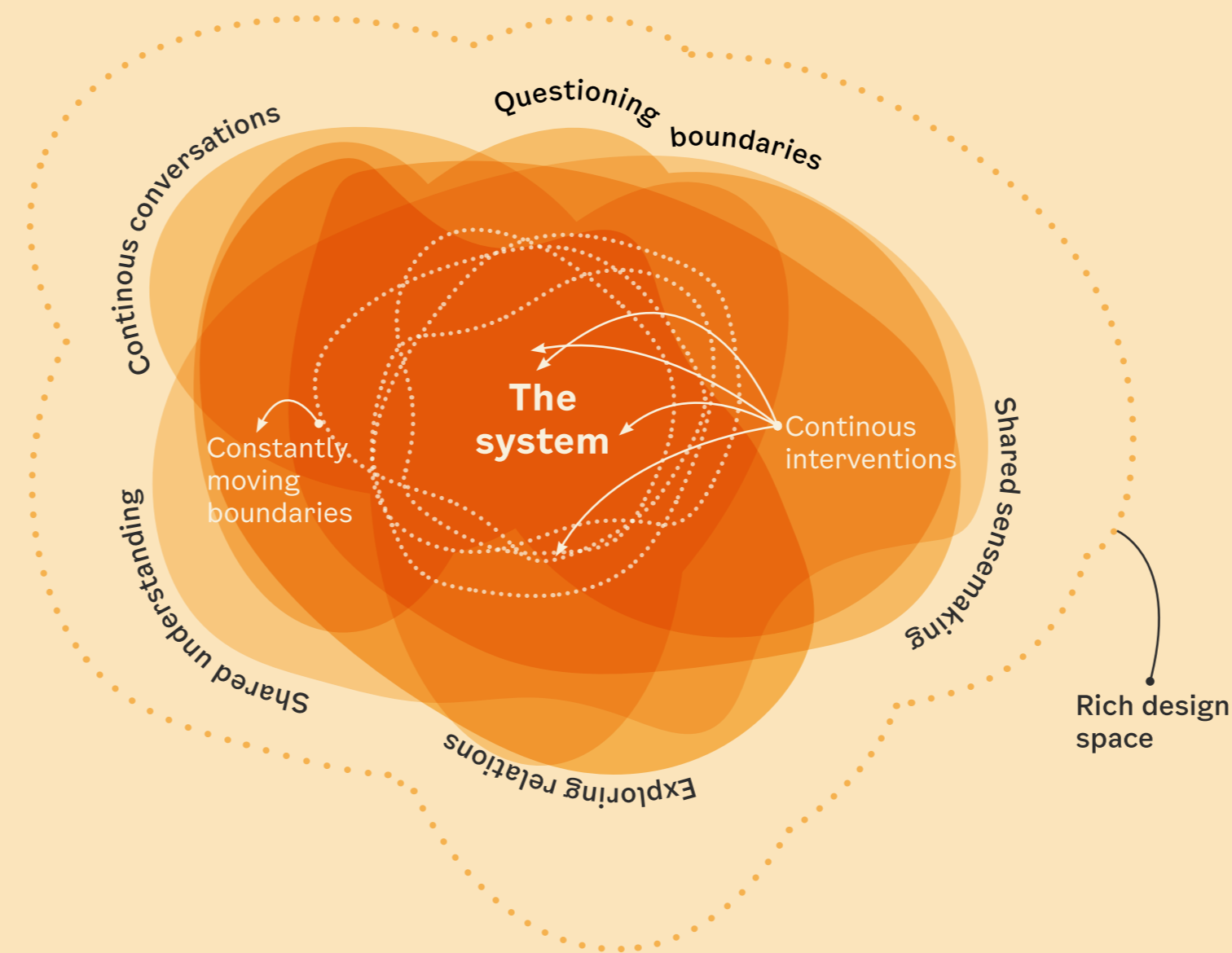


Figure 15: The process from a systems oriented design (SOD) perspective: All stakeholders in the system create shared value through a continuous weaving of diverse interactions, inquiries, relationships, interventions, shared sensemaking, and shared understanding.

A way to visualise the complexity of the process involves highlighting the Systems Oriented Design (SOD) reflections described at each stage. Here's how we approach it:

Rich design space: We reflect on our experience to use rich design space in an office environment and in a digital environment.

Fostering Conversations: We emphasise the importance of ongoing conversations throughout the process. This ensures that insights are continuously shared and integrated.

Questioning Boundaries: During the analysis of findings, we stress the significance of questioning the boundaries that define the project brief. This helps to uncover hidden assumptions and broaden perspectives.

Collective Sensemaking: In the workshop descriptions, we reflect on the importance of creating good conditions for a continuous process of sensemaking between all the stakeholders in the system.

Exploring relations: We emphasize the importance of focusing on relationships rather than individual elements.

Shared Understanding: When presenting findings and design suggestions, we reflect on the importance of ensuring shared understanding among all stakeholders. This fosters alignment and facilitates effective decision-making.

Continuous interventions: Finally we highlight the importance of systemic interventions in a complex system.

Desktop Research and Rich Design Space

i Rich Design Space and Very Rapid Learning

The rich design space is a scaffolding that helps designers and design-led research to manage the richness of their process (Sevaldson, 2008). “A *Rich Design Space* addresses both concrete spaces like the physical studio, virtual spaces like the digital realm occupied by 3D software or a blog, as well as social spaces of design collaboration. The *Rich Design Space* intends to help keep as much information in the game for as long as possible. This is achieved mainly by visual means with traditional visualisation techniques, but also through different electronic media.” (Sevaldson, 2022, p. 65)

We have further embraced very rapid learning, that Birger Sevaldson describes in his book “Designing complexity” as a technique to “become sufficiently informed so that we know how and when to depend on experts and what limitations our current positions and knowledge bases have. It also guides us to plan the involvement of others for sharing knowledge, judgement, and opinions. It is a technique for quickly achieving an information advantage while knowing enough about what we do not know. This means knowing enough to be humble about one’s knowledge”. (Sevaldson, 2022, p. 302)

This technique puts focus on having an awareness of the areas of the topic that we don’t know enough about in order to connect those who do in an early phase of a process.

Desktop research

Initially desktop research was done to get a grasp of the field, and take into account previous research, as well as trends and strategies. Since it was difficult to recruit users of the service for interviews (we only got one), we followed (social) media to gather additional insights on user perspectives and user stories.

The need for multiple data sources

We are critical towards the use of social media as a source for getting user perspectives. Social media is often used as a vehicle for complaints and we did not catch the positive service experiences of users in this way. Thus, it was important to try and get a more nuanced picture of user experiences with the help of other methods such as the real world lab and user cases.

Rich design space

We collected our data in a rich design space, utilising both a physical space at the office and a digital space in Miro. These spaces served two primary purposes: firstly, to test the rich design space as a “methodological framework and scaffold for research-by-design” (Sevaldson, 2008), particularly in an office context where research-by-design is not commonly practised. Secondly, to gather as much information in a short time as possible.

Some of the desktop research [can be found in the desktop research section of our digital rich design space.](#)

Reflection: **The Use of a Rich Design Space in Our Context**

Our experiences with the rich design space have been mostly positive. Having all kinds of data visualised in a space was helpful throughout the project and especially for our collaboration. However, it has been challenging to make good use of the physical space at the office. The reason for this was that the room was small and we worked with big mappings during the workshop and interviews. Thus the walls quickly filled up with information and we had to constantly evaluate what we wanted to have visible, while we had to remove other information. Since the room was small it was not possible to take steps back in order to get a good picture of the whole. We counterbalanced this with an additional digital space in Miro. This worked better for collecting data and keeping a picture of the whole, being able to zoom in and out. But in our experience the digital space has limitations when it comes to thinking creatively and trying to find new connections between pieces of information.

Since the room was still supposed to function as a meeting room, we needed to make sure to not create too much of a mess (on the tables). Thus, we started throwing away some of our materials that did not fit on the walls anymore. Later we regretted this as we thought the information might have had more use for us. Our colleagues, and especially other designers, who used the room for their meetings thought it was interesting to see the space evolve and to follow our research. Interestingly, we were hesitant to invite someone from the board of leaders into the space.

Collecting Insights and Fostering Conversations

Jumping Conversations

Jumping conversations occur when two or more participants with diverse perspectives engage in a dialogue about the same system. They seek to understand the relations or lack of relations between these perspectives. Visualising these conversations through gigamaps helps to identify where and how these relations emerge. (Wettre et al., 2022.)

Gigamapping

Gigamapping is a tool to produce knowledge through the visualisation of complexity. It enables us to:

- *Grasp complexity: the system, its sub- and suprasystems, its environment, and its landscape.*
- *Design, share, align, and critique an image of a complex situation.*
- *Understand and shared problem fields (problematiques).*
- *Modulating relevance and prioritizing importance.*
- *Critique and adjust boundaries.*
- *Move seamlessly between the descriptive and generative.” (Sevaldson, 2018, p.250)*



← Wrap up after interview with an advisor from Bydel Bjerke

Collecting Insights

Interviews

We conducted interviews with over 14 stakeholders within the system. Initially, we worked within the boundaries of the brief, focusing on case handlers and other relevant roles within the NAV office, such as controllers and team coordinators. Recognizing the need to widen the boundaries, we incorporated other perspectives using the four perspectives model by Sevaldson (2018). This included users of the service, activists seeking to change the system, the bureaucrats who issued the brief, and higher-level bureaucrats involved in proposing legislative changes.

We undertook this process to identify and agree on possible areas for further learning, build relationships and trust with individuals who would join future workshops, connect with end-users, understand how case handlers perform their work, improve our preparation for user journeys, and gather suggestions for creating cases for the workshop.

We mapped these interviews using an approach called “Jumping Conversations” (Wettre et al., 2022).

Some of the gigamaps from the interviews can be found in: Appendix A1 –: Gigamaps of the interviews (Vedlegg 1 - Appendix.pdf, p. 3)

Observation

We followed a case handler from NAV through their normal work day. This was done in order to get a sense of the culture that a case handler is surrounded by and also to better understand their tasks, how they approach them and what pain points they experience in their day.

Notes from the observation can be found in: Appendix A2 –Observation of a case handling process (Vedlegg 1 - Appendix.pdf, p. 4)

Real World lab

In order to reach out to the users of the service and gather their perspectives on the service, we put up a pop-up stand at the NAV front desk in one district. Later, in the section about ethical considerations and limitations we explain why we did not succeed with this activity.

Information about the pop-up can be found at Appendix A3 – Pop-up stand (Vedlegg 1 - Appendix.pdf, p .4)



→ Pop-up at public reception in Bydel Bjerke to reach out to users of the service.



Reflection: the Importance of Fostering Conversations

Throughout the entire process, we prioritised fostering continuous conversations with and between stakeholders. While it's challenging to measure their exact impact, we believe these ongoing dialogues significantly contribute to better decision-making that benefits most stakeholders.

Interviews and observations are crucial for collecting qualitative data in every design process and should be conducted frequently. Additionally, when working with many stakeholders, the designer should ensure that conversations happen not only between the designer and stakeholders but also among the stakeholders themselves. The goal with using jumping conversations (Wettre et al., 2022) was for instance not to create a static map or image for others to use but to develop an interface for discussions during the interviews. This approach proved effective, and the artefact produced was more useful than traditional interview transcripts during the analysis - possibly due to the better engagement of our visual memory.

In jumping conversations, the intention is to involve all participants in the mapping process. However, during our interviews, only the designer was mapping. We believe this happened because few colleagues are accustomed to these approaches, and it takes time for them to see this method as a valuable tool for discussing complex issues. To actively involve interviewees in mapping the conversation, it is essential to provide a clear introduction explaining how and why this technique is used during the interview, which we admittedly failed to do. Another reason might be that jumping conversations ideally involve a group of experts from different backgrounds who interview and discuss with each other. In our context, the experts were being interviewed by the designer, which is a different dynamic.

Organisational theorist Ralph Stacey (1995) describes organisations as “*nonlinear, network feedback systems.*” (p. 481) This means that they consist of many human interactions where one person's actions affect others, prompting reactions and further interactions over time.

Viewing the organisation as a dynamic system that evolves through daily human interactions challenges the traditional view of a rigid structure with fixed divisions, hierarchy, methods, processes, roles, and outcomes. This perspective encourages designers to reconsider their role within this dynamic context. As service designers, we often act as facilitators, helping the team stay aware of the big picture. This role allows us to create spaces within the organisation for informal conversations among stakeholders and to foster environments for the emergence of different value co-creations and solutions for improvement.

Adopting approaches like Ralph Stacey's is highly beneficial because they emphasise the importance of local interactions within the organisation and between stakeholders and service users. According to his perspective, these interactions are more critical than any method, model, plan, or strategy dictated by a leader or facilitator, as no one truly controls change in complex systems.

“There are ideologies of control lying behind the insistence on the need for instrumentally rational tools and techniques. In reflecting these ideologies, some believe that without the tools and techniques organizations would not be able to produce success; indeed, they would be ungovernable. Others believe that without the tools and techniques it would be impossible to improve the human condition or take action to sustain the planet. There is a very powerful belief that ‘we’ must be able to improve whole organizations intentionally. For some, these beliefs are impervious to reason, perhaps because it is too disappointing to accept the humbler realization that success and failure, sustainability and destruction, all emerge across populations through myriad local interactions and all anyone can do is participate as meaningfully and as influentially as possible, acting on practical judgment, in these local interactions.” (Stacey, 2012, p.61)

In practical terms, it takes courage to acknowledge that no one has absolute control, and that it is permissible to linger in uncertainty for a longer period. The ongoing pressure for efficiency, control, results, outcomes and productivity in organisations frequently hinders this approach, even though the complexity of numerous cases necessitates it. In such a context, we should aim to “*facilitate the emergence of desired forms of value co creation*” (Vink et al., 2020, p.173) by finding ways or spaces to foster shared sensemaking, local interactions and diverse conversations.

An overview of some of the many conversations from the process can be found in: Appendix A4 – Conversations as systemic interventions (Vedlegg 1 - Appendix.pdf, p. 5).



Summarising Findings and Questioning Boundaries

Zip Analysis

ZIP stands for Zoom, I for innovation and P for potential or problem. It is a method used for analysing a Gigamap. Sevaldson (2022) writes: “Often, the order of the process is that we start with Z-points to zoom in on white spots on the map, then look for P-points to identify potentials and problems, and eventually search for I-points of innovation or intervention.” (p. 276)

The Boundary Concept

Boundaries separate what it is to be included or excluded from analysis. Setting boundaries defines both the knowledge to be considered pertinent and the people that generate that knowledge. A boundary does not simply mark what is included within it. It also marks what is excluded (Midgley, 2000)

Summarising Findings From the Interviews and Observations

After the interviews we made an attempt to categorise the findings by identifying problems, ideas, and aspects mentioned multiple times across all interviews. This process enabled us to focus our attention on the most frequently discussed and significant areas.

Zip analysis

In a first round of analysis, we used ZIP analysis in our rich design space and on a variety of our materials to define problem points, ideas for innovation and areas where we needed to zoom in more and retrieve more information. We then assigned different variables to each ZIP-point, depending if we considered these to be relevant for the point:

Juridical variables: do norms and the law influence this point to a high degree?

Organisational variables: do organisational culture, hierarchies, roles and responsibilities play a major role?

Technical variables: does technology play an important role?

Human variables: do individual beliefs, experiences or knowledge influence this point?

Political variables: do politics influence this point to a high degree?

The result of the ZIP analysis can be found in: Appendix B1 – Zip Analysis (Vedlegg 1 - Appendix.pdf, p. 7)

Affinity mapping

Affinity mapping was used after the first round of interviews with NAV employees as well as after the service blueprint workshops. With this method, we sorted our findings into related categories, thus being able to see recurring themes and bigger problem areas. This enabled us to identify some key findings.

A part of the affinity mapping can be found in: Appendix B2 – Affinity mapping (Vedlegg 1 - Appendix.pdf, p. 8)

User cases

The ZIP analyses and affinity mapping conducted after each conversation served as the initial step in identifying common themes across interviews. To facilitate comprehension and organisation, we opted for defining three user cases that encapsulated the findings extracted from the interviews. In addition to the interviews, there were many rounds with different stakeholders to validate the content of the user cases because they describe recurrent citizen's situations and challenges and it was important to validate this as much as possible.



Figure 16. Two of the resulting user cases.

The process of defining the user cases can be found in: Appendix B3 – The process of defining user cases (Vedlegg 1 - Appendix.pdf, p. 9)

Reflection: the Importance of Questioning Boundaries and Practising Boundary Critique

After conducting interviews and organising the findings, it became apparent that certain crucial questions emerged from the conversations, addressing significant issues within the system that were still challenging to fully grasp due to their complexity. We reflected on and discussed the risks to categorise and structure the information in cases, categories, phases, and scenarios. What is left outside when categorising in this way? Is this the right way to proceed? What are the unknown unknowns in this process? Is there an awareness of what is left outside when structuring in this way?

During the analysing phase, it's common for designers to experience a sense of overlooking important insights of the design process. This occurs because service designers in the public sector often find themselves struggling with the immense complexity that surrounds the service as described by Paul Neeley:

“Many service designers will have experienced a change in the nature of the problems they are being asked to address in recent years... For example, we are increasingly asked to look at not just the hospital, but the entire health system, not just the flight experience, but its broader cultural and environmental impact, and not just the treatment of homelessness, but how all aspects of society and policy may create the risk conditions for homelessness to occur. This expansive shift introduces us to new kinds of complexities, many of which are not well understood by service design as a discipline... Complex systems function in ways that set them apart from non-complex systems, and an understanding of these principle behaviours should become fundamental to every service designer’s practice... “The map is not the territory” is a concept most of us understand well in theory, but the implications of designing in a way where we truly avoid abstraction and the narrowing of scope and scale, and are instead deeply wary of our models, is something very foreign to how we normally are taught, and how we’re incentivised to design.” (Neeley, 2021, p. 12-13).

From a SOD perspective, designers can rely on two key concepts to navigate this uncertainty. The first is the notion of boundaries, which emphasises that it is impossible to attain a full comprehension when dealing with a complex system (Midgley, 2000). However, it is still possible to gain a holistic understanding of the system as a whole (Sevaldson, 2022). Boundaries help us define what aspects of the system we’re focusing on while recognizing that much, known and unknown, lies beyond our chosen boundary.

With boundaries, we delineate in the wholeness of the system, our current focus-area in it, that which lies beyond, and the areas that require further exploration or understanding. A boundary can be expanded or contracted depending on the reflection

of what should be included or excluded to create change. This process highlights the importance of visualisation in systems thinking, with gigamapping serving as a valuable tool for visualising what is inside and outside a boundary.

Gigamapping typically begins with visualising the known components of the system, gradually bringing unknown aspects into view. When done collaboratively with various stakeholders, this process reveals many previously unseen factors or unknown unknowns.

A big variety of gigamaps created during the entire process as a way to question boundaries and navigate the system, can be found in: Appendix C-C8 – Gigamaps (Vedlegg 2 - Gigamaps.pdf)

The second approach involves delving deeper into the system to uncover the underlying causes of the observable events. This method is represented by the Iceberg Model (Goodman, 2002), which was utilised in this project to explore the questions that emerged from interviews or discussions. The questions were categorised based on their complexity, with the aim of gaining deeper insights and potentially identifying the root causes of surface-level issues. Questioning was a vital tool in ensuring that diverse perspectives were considered, even as decisions were made and boundaries were established.

Throughout the interview process and the subsequent structuring of findings, there has been a continuous cycle of questioning and reevaluation of conclusions and boundaries which is still ongoing today.

We are aware of the difficulty to put both gigamapping and the iceberg model into practice, especially in an organisation like the municipality of Oslo and in the level that service designers usually have in the hierarchy of the organisation. These processes are still new for most people and it is mandatory that those who are involved in the process have an understanding about why these processes are important and why we are doing them. Such understanding is not yet assimilated in our context. We did both processes ourselves without involving other stakeholders, and although they were useful for us, it would have been much more powerful to test them with others. As designers, we can actively participate in slowly making these processes more visible and known.

In the Appendix:

A visualisation of a boundary critique about what is inside and outside the scope of the brief from our employer, and a test of critical heuristic questions as a way to practise boundary critique, can be found in Appendix B4–Boundary critique (Vedlegg 1 - Appendix.pdf, p. 10).

The Iceberg Model

“The iceberg model is a systems thinking tool designed to help an individual or group discover the patterns of behavior, supporting structures, and mental models that underlie a particular event”. (Goodman, 2002)

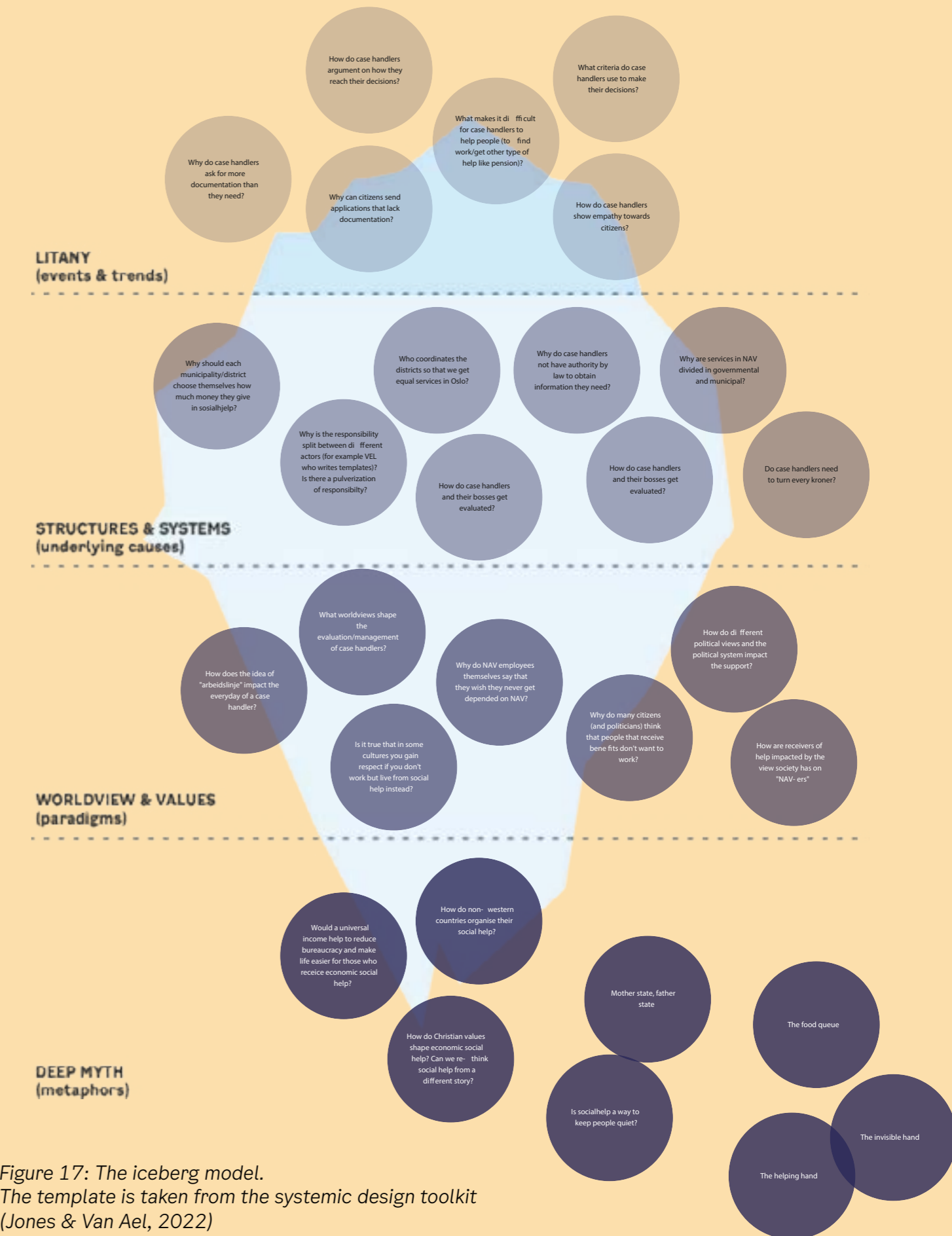


Figure 17: The iceberg model. The template is taken from the systemic design toolkit (Jones & Van Ael, 2022)

Multi-actor Workshops and Shared Sensemaking

Service Blueprint

The service blueprint is a common tool of service design. Originally coming from marketing, it is used as an exercise to map out the different stages of a user journey: what happens before, under and after a user meets the service? How does a user hear about the service? What are physical touchpoints in the user experience? What is difficult for the user? What is enjoyable and positive?

After mapping the user journey, one maps out what the service employees and other collaborators do in order to make that journey happen. Who is involved? When do they meet with the user (if at all) and what do they need to prepare? What tools are they using and do these actually help them? How is the flow of information between the different actors? Are there any laws that are important for different stages in the journey?

Multi-actor Workshops

We invited various stakeholders to two workshops with the goal of mapping out a service blueprint. In the first workshop, the focus was on creating a blueprint of the current service (“as-is”), while the second workshop aimed to design a blueprint for the desired future service (“to-be”).

This activity was pivotal in the design process as it brought together stakeholders who typically do not interact, allowing them to collaborate in mapping out the case handling process using the service blueprint method. Participants included representatives from the city council department AIS, service and UX designers from DigiSos, case handlers from different districts, financial officers, an architect from the software system, and NAV-district leaders, among others.

Workshop 1: Service blueprint as-is

Participants were divided into three groups, each assigned to examine one user case from the previous phase. The role of each group was to meticulously map out the user journey of their assigned case and the corresponding case handling procedures and needs for coordination with other actors.

The service blueprints can be found in: Appendix D1 – D3 Service blueprint as-is (Vedlegg 1 - Appendix.pdf, p. 13-16)

The outcome of the first workshop was a detailed map depicting the case handling process, along with the challenges, problems, and obstacles encountered by both the user and the case handler.

Painpoints after the first workshop

After the first workshop, we convened to review the outcomes of the “as-is” service blueprints and engaged in discussions about the pain points and opportunities identified during the workshop. Our focus was primarily on the pain points, as we intended to address them as a starting point in the next workshop.

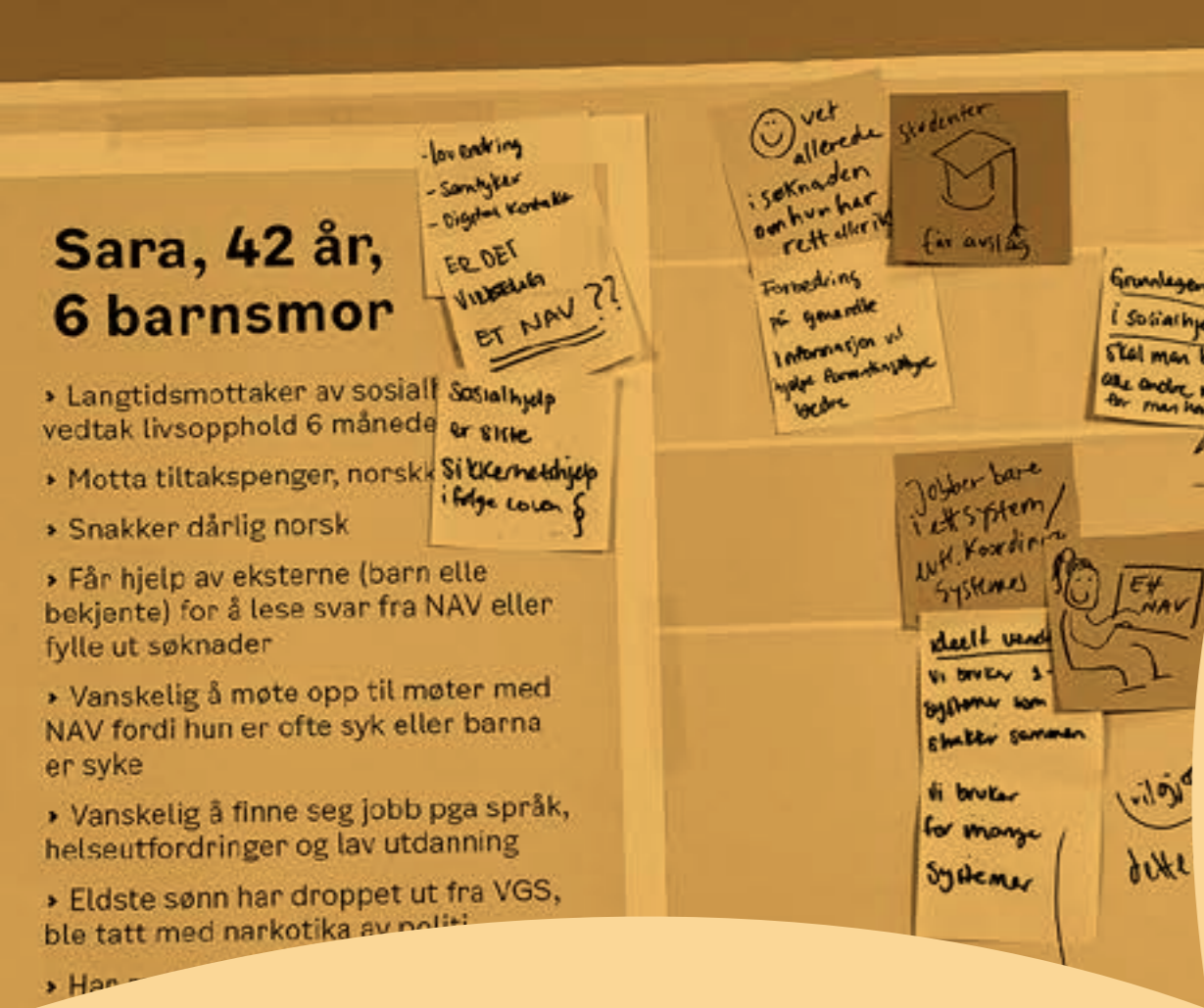
The painpoints can be found in: Appendix D4 – D7 Pain points (Vedlegg 1 - Appendix.pdf, p. 17-19)

Workshop 2: Service blueprint to-be/ a future scenario

The second workshop focused on creating a service blueprint for the ideal version of the service. Participants were divided into the same groups as in the previous workshop and were assigned the same cases as before.

Each group was tasked with reflecting on the desired outcome of the case handling process for their assigned case. The objective was to pinpoint the changes the service provider aims to achieve in the applicant. Since citizen representatives were absent, assumptions were made about the citizens’ perspective, envisioning what the end of the process might entail for them and what success would mean. The subsequent task was to determine the steps needed to reach these outcomes in case handling and how to bridge the gap between these different goals.

The service blueprints to-be can be found in: Appendix D8- Service blueprints to be (Vedlegg 1 - Appendix.pdf, p. 20)



Reflection: Shared Sensemaking

Service blueprint as-is

The service blueprint is a great tool to provide a structured conversation between different stakeholders of the system. However, we experience the linear way of depicting information as limiting and a simplification of reality. Often, things came up in conversations during workshops that did not fit into the prepared structure. As experienced service designers, we might have found ways of including that information in some way or the other. However, we still noticed how we tried to move the conversation in a linear way to be able to get through the user journey from A to Z.

In her book *Changing Conversations in Organizations*, Patricia Shaw (2003) emphasises the importance of continuous sensemaking gatherings in human interactions, which facilitate construction, collaboration, and creation. She highlights

“How the non-linear, iterative nature of human relation, patterns itself as an emergent narrative themes that organise our experience of being together, constructing identity and difference simultaneously” (Shaw, 2003, p.43)

Continuous sensemaking of situations, problems, or ideas emerges in various organisational gatherings. While some gatherings are formal, like meetings, workshops, and kick-offs, many are informal, such as coffee breaks during workshops, casual walks and talks with colleagues, or workshops with more open agendas.

This understanding prompts us, as service designers, to reflect on how we can create safe environments that encourage more of these informal gatherings while also ensuring the expected delivery from the brief in professional settings. Adopting a more fluid jumping conversation (Wettre et al., 2022) approach, devoid of strict start and end points, may offer a more flexible framework conducive to creative exploration.

Another limitation of the service blueprint and especially true in social service settings is the fact that there is no one case that is alike another. While personas and user involvement can provide valuable insights, the rigid structure of the blueprint may inadvertently convey a false sense of control over the user experience. Combining the blueprint with other tools, such as gigamapping, could help contextualise this variability and provide a more nuanced understanding of the system.

Service blueprint to-be

A service blueprint of a future scenario typically begins by addressing the most prominent problem areas identified in the previous workshop. But this time, better conversations ensued when the first activity involved reflecting on the outcomes of the service. This allowed participants to discuss the value provided by the service and how it differs for both the citizen and the service provider. Additionally, it served as a good starting point for considering the feasibility of the future we were about to map.

The main limitation of using a service blueprint as a tool for creating a shared sense of the future is that it only allows us to reflect on opportunities within the current scope of what is possible. This approach corresponds to the second horizon in the adapted Three Horizons model from Daniel Christian Wahl’s book *Designing Regenerative Cultures* (2016).

However, exploring the effects of maintaining the status quo (horizon 1) (Wahl, 2016) can provide valuable insights, such as understanding the brief’s importance.

Additionally, good ideas can be attained by exploring completely new ways of doing things, which corresponds to the third horizon (Sharpe, 2020). In the municipality, there’s often scepticism about discussing ideal futures because it may seem naive or ignorant of the complexity inherent in almost every service. However, exploring

new ways can also be a valuable tool for raising questions that are either overlooked or dismissed as too obvious. It is an opportunity to challenge established practices and rules, which bureaucrats are often deeply entrenched in, and provide space to propose and test better approaches.

By considering all three horizons, we can gain a more comprehensive understanding of the possible futures and their implications. We tested the horizons model (Sharpe, 2020) as an exercise to visualise probable, feasible and desirable futures in the user experience of the service. This gave us a good overview of existing and future opportunities in the system.

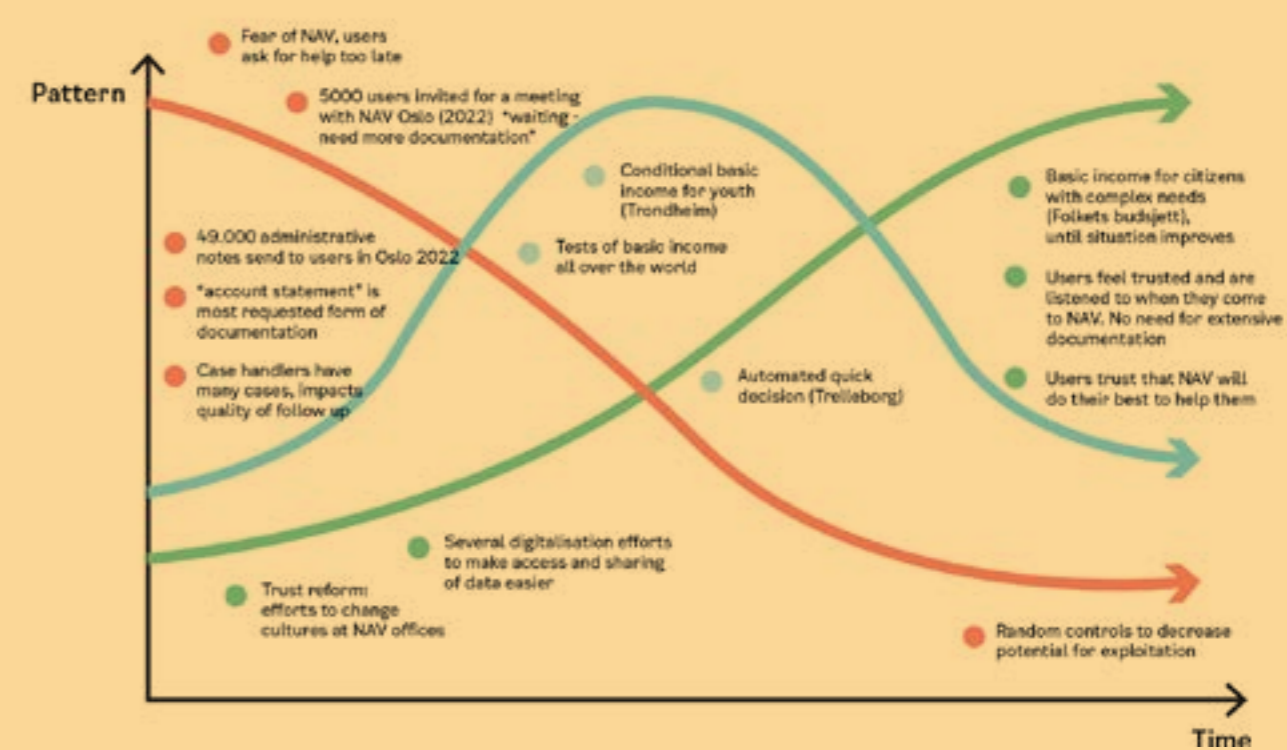


Figure 18: Three horizon model - improving user experience of the service.

Analysing Findings, Identifying Opportunities and Exploring Relations



Relations

Relations are the connections or interactions that take place between different entities in a system, they have different characteristics for example: tension, feedback loop, friction, power, etc.

Following the identification of key findings from our qualitative research, we collaborated closely with a data analyst to uncover quantitative insights that could provide further depth regarding the severity and volume of our findings. For the final presentation, we utilised various phases of case handling as a framework to describe pain points and highlight potential opportunities for streamlining the case handling.

We categorised the findings into problem areas to provide a framework for understanding the challenges they represented. Problem areas such as “Lack of communication,” “Difficulties in obtaining necessary documentation”, “Ineffective follow-up,” “Fragmented NAV,” and “Varieties of routines and organisation in the Oslo municipality” were utilised to encapsulate the pain points. While we identified connections between them, we opted not to rigidly adhere to the defined problem areas. Instead, we viewed them as a flexible means of organising the findings, subject to modification based on the preferences of the participants in the workshop.

Reflection: The Importance to Focus on Relations

During the process of summarising the findings that were mapped out in the workshop, numerous discussions arose regarding how to proceed in order to ensure that we retained the essence of the conversations from the workshops while presenting the findings in a clear and structured manner.

Regardless of how we organised the findings after the workshops, we felt that we were attempting to oversimplify interconnections that resisted simplification. For example, we attempted to categorise the pain points using the relations defined at the start of the process (political, juridical, organisational, humanistic relations). However, we soon realised that many pain points encompassed more than one of these relations and some of those relations were also interrelating, making the conclusion very difficult to communicate. This is why we ended up summarising the findings and pain points by dividing them into themes or problem areas.

In Sevaldson “Designing for Complexity,” (2022) shifting focus from objects to relations is proposed as the second of five changes in mindset necessary for understanding the value of Systems-Oriented Design. This shift entails a “switch from looking at the world as a composition of objects, to looking at the world as interlinked entities with constantly changing, dynamic relations” (Sevaldson, 2022, p.16). An entity, whether an element or an object within a system, is not static but rather a result or indication of various systemic processes. It has an origin, function, and role, and is interconnected with other elements. Eventually, it may cease to exist (Sevaldson, 2022). Thus, entities do not define the system; instead, the system’s comprehensiveness lies in the interconnectedness of these entities. By focusing on the relations within the system instead of the entities in it, we gain a deeper understanding of its complexity.

Sevaldson also admits that most of us typically perceive the world as a collection of objects, this perspective helps us to comprehend reality and take action (Sevaldson, 2022). Therefore, the shift toward focusing on relations should not imply a constant view of the world as a dynamic network of interconnected entities. Rather, it should encourage us to be mindful of this perspective when it is relevant. For instance, when categorising findings, defining actors, or delineating phases on a timeline, we are essentially attempting to objectify a process to better communicate it. Being aware that these creations are constructs that can be adjusted or reorganised as needed allows us to approach the system and its relations from diverse viewpoints.

To focus more on the relations than on the objects of the system makes a lot of sense in theory but in practical terms it is not yet clear how to work with them and how to present and propose new approaches just by talking about the relations of the system.

We are still too dependent on focusing on the elements of the system so that others understand. For example, during the workshop, we as facilitators attempted to describe the relations between the different elements of the system by writing on the arrows the kind of relations that arose, but often ended up not describing it maybe because the relations on service blueprints don’t lie only on the arrows but also in between the post-it that describes the situation, on the arrow and on the pain points.

The process of focusing on relations still requires a lot of training and new communication tools that make the process understandable for those who are not participating in the workshop and are not used to thinking in terms of relations more than objects and elements. This is why we ended up using the second mindset just as a way to be aware of the importance of relations, not as putting it actively into practice.

The Design Delivery

Pain Points ■ **Opportunities** ■ Design Pathways ■ **Sketches**

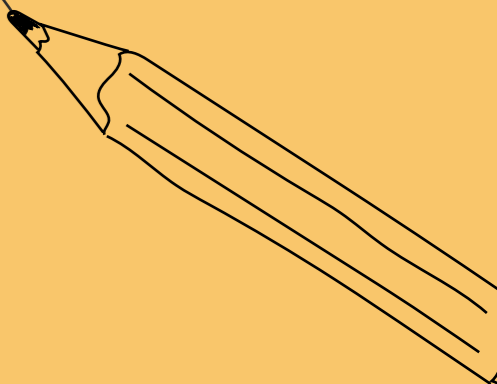
In our design delivery, we replied to the brief by providing a summary of the major pain points related to the case handling of financial assistance. We furthermore identified opportunities for improvements and presented some first sketches of a possible future.

In this section we will go through the pain points, the possibilities for improvements and present possible design paths that aim towards a more strategic vision for the service improvement.

Automatisation

Coordination

Integration



Presentation of Findings, and Shared Understanding

The findings and design suggestions were presented on several occasions

- A meeting with project owners from the health agency and Oslo Origo
- A meeting with city council representatives
- An internal meeting for the board of leaders at Origo
- A meeting with representatives from the initiative Fasit 2025 (?)
- The presentation was furthermore sent to all our informants and participants at the workshops.

[See the whole presentation](#)

Phases for Case Handling of Financial Assistance

We arranged the pain points into three main phases of the case handling:

- The mapping phase
- The assessment phase
- The following-up phase

In the following text, we will explain the phases and pain points briefly but will not go into detail. We will also present the space for opportunity that we identified for each phase. For the interested reader, our presentation to the board of leaders and city council with more details on each pain point can be found in the appendix.

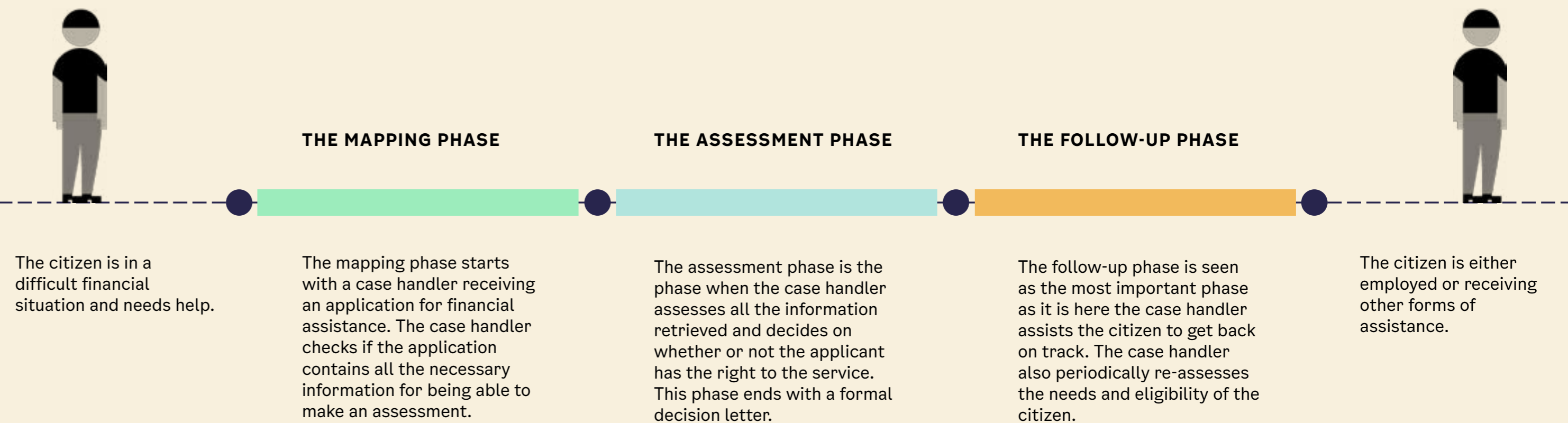


Figure 19. The case handling process in phases.

Pain Points and Opportunities

Pain point during the mapping phase

Clarification of district affiliation

"There is a lot of arguing between districts because of this."

"Each district could probably save a full-time position because of this."

Acquisition of documentation

"We ask for more than we need."

"We often reject the initial application because we lack documentation."

Pain point during the assessment phase

Overview of individuals

"Today, we have to dig a lot into journal notes."

Standardization

"We spend countless hours with a case worker googling for the cheapest refrigerator. When the case goes for approval, it's double-checked if it's possible to find something even cheaper."

Writing decisions

"We spend time deleting content in templates only to manually fill in the content afterwards."

Pain point during the follow-up phase

Time-consuming, bureaucratic processes

"There are many manual steps involved when applying for a loan for a deposit, so it takes a very long time."

Fragmentation of NAV

"It's so separate how we work."

"My big sorrow is that the municipal level operates within its own isolated system."

Opportunity in the mapping phase

We automatically obtain (only) the necessary documentation to determine whether the applicant can receive financial support - and this is done quickly regardless of affiliation.

Opportunity in the assessment phase

Updated information about the user is structured in the software system. Proposals for decision texts are produced automatically based on structured information, standardized rates and prewritten text elements.

Opportunity in the follow-up phase

We streamline manual processes. State and municipal benefits and systems are coordinated.

Examples of Underlying Systemic Issues

Here we exemplify some of the systemic issues we identified under three of the pain points. Under "Reflections: On the Possible Implementation" we will further reflect on how these systemic issues need to be addressed for one of the pain points in order to achieve the automatic retrieval of documentation.

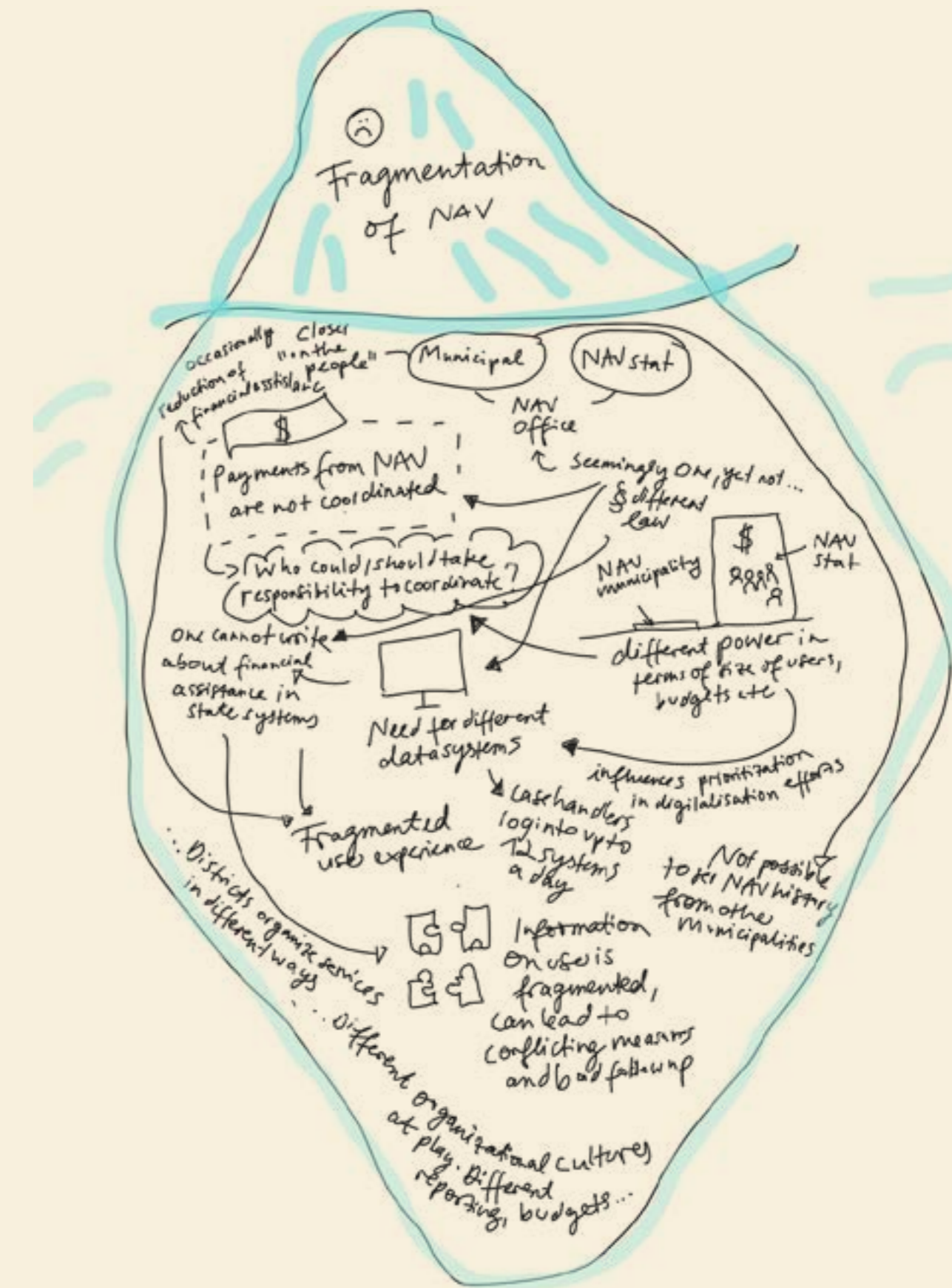
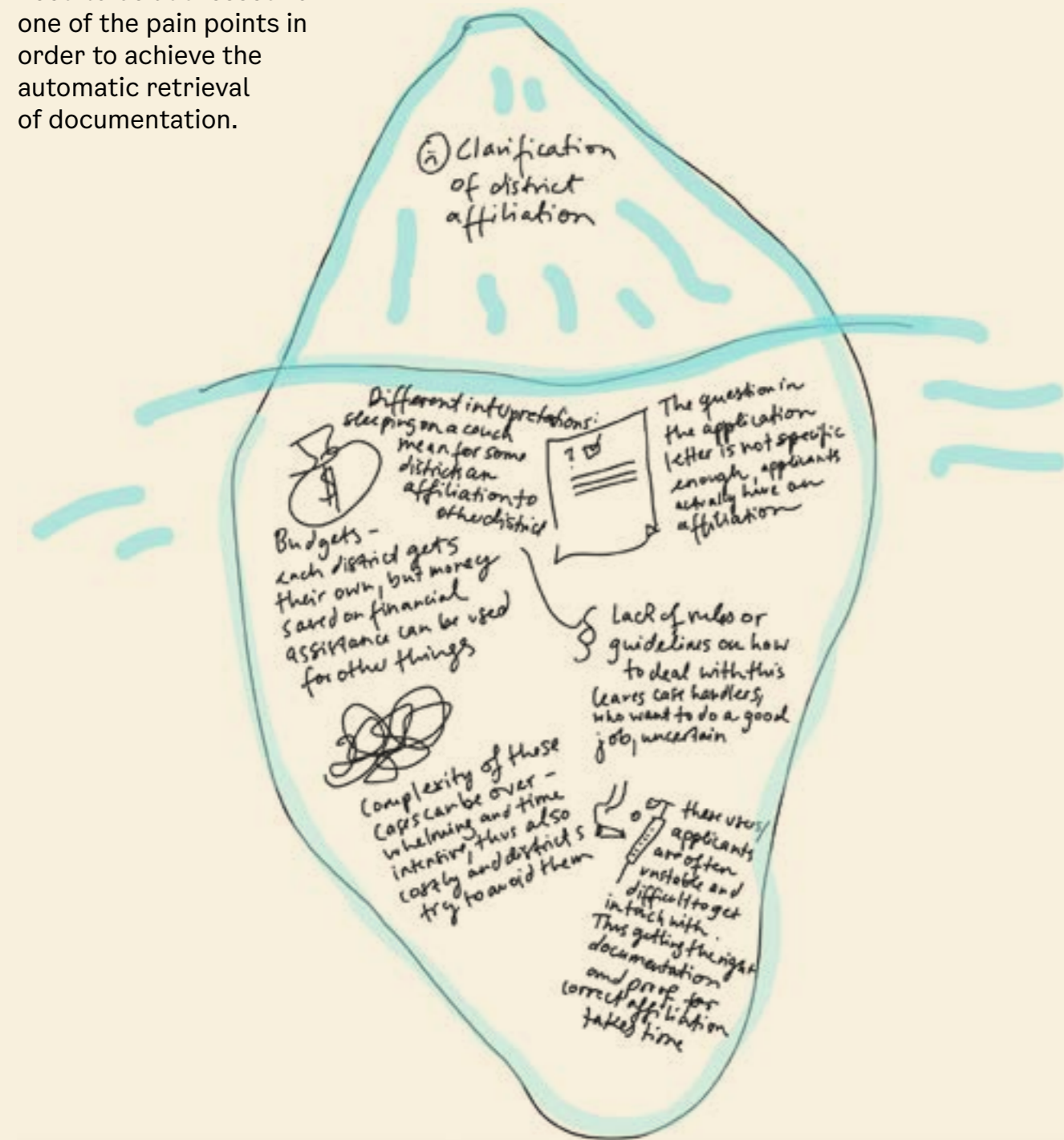


Figure 21. Examples of underlying systemic issues.



Designing
the first
wireframes

Reflection: Striking the Appropriate Tone When Communicating to Other Stakeholders

The entire process and its recommendations were shared with various stakeholders. Some presentations were part of the formal delivery process, while others were initiated independently to validate the findings and gather additional input. Concurrently, there were numerous iterations to improve the presentation content for professional approval by the city council department AIS.

When presenting our key findings, we received positive feedback on our approach of incorporating both quantitative and qualitative data. This observation underscores the importance for a systems oriented designer to be mindful of our audience and tailor our communication accordingly. German sociologist, philosopher and systems thinker Niklas Luhmann says that reality is formed by observations of and structural coupling between systems (Luhmann, 1995). According to him, social systems are communication systems. *“To “participate” in communication, one must be able to render one’s thoughts and perceptions into elements of communication. This can only ever occur as a communicative operation (thoughts and perceptions cannot be directly transmitted) and must therefore satisfy internal system conditions that are specific to communication: intelligibility, reaching an addressee and gaining acceptance.”* (Luhmann, 1995, p. 158) Every social system is distinguished in the way they communicate (Luhmann, 1995). The communication system of design might be about creativity, imagination, problem solving and radical innovation, however when we as designers interact with a different social system (such as high level bureaucracy) we might need to adapt how we communicate in order to reach the audience. As systems oriented designers, we need to be strategic in the way we are performing and interacting in the organisation.

This might not meet the usual criteria of a Master in design that values risk taking and creativity. However we believe that our real world example highlights the need for a balance between creativity and practicality in our design suggestions as well as communication strategies in order to get heard.

Another illustration of the significance of striking the appropriate tone in communication came up when we interacted with representatives from the city council, who placed great emphasis on using precise and established terminologies. As designers, we occasionally prioritise a more creative or human-centric approach, opting to replace bureaucratic language with simpler terms that are easier to comprehend. However, in certain contexts, adhering to established terminology may be crucial for ensuring a shared understanding and fostering trust within the given setting. Interestingly, from our experience the higher up in the bureaucracy, the

more importance is put on established terminologies and bureaucratic terms. One explanation could be that it is relevant in relation to law. While those who work close to the users are more concerned with finding words that are understandable for everyone.

The task of the designer might be to connect the dots, as described in a report by Nesta & Ideo (2017) *“There is a separation between those who make policies and those who deliver the services, and this often results in an incoherent service experience for citizens. A design led approach connects these dots, with both policy design and delivery being considered concurrently rather than sequentially, and quite a number of governments are now experimenting in this space.”*

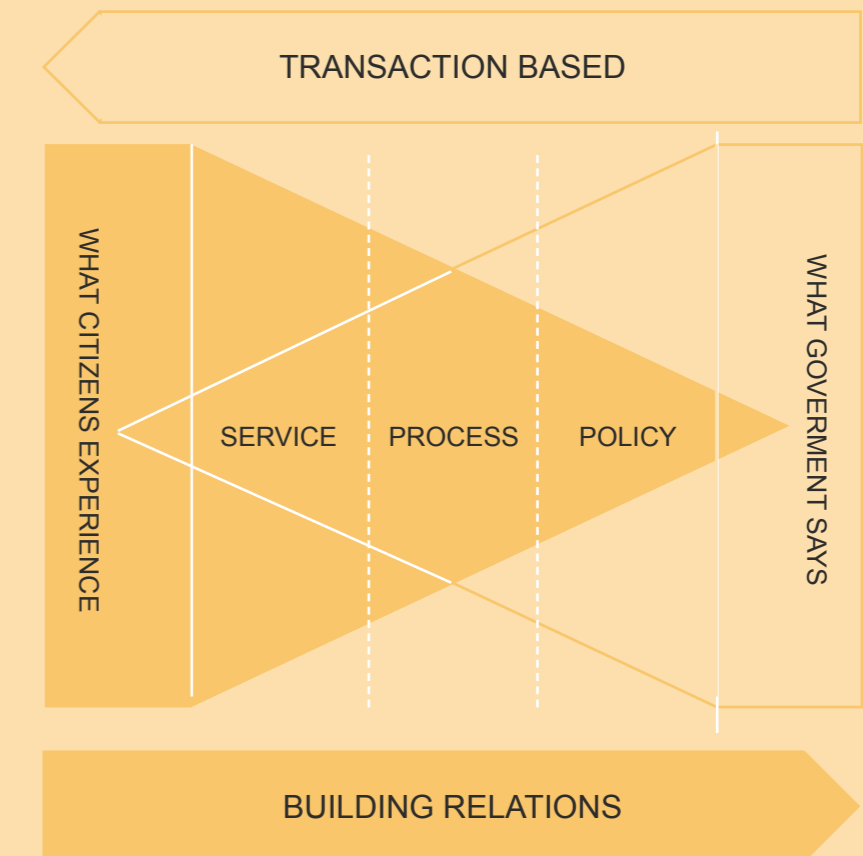


Fig 22. Gap between user experience and government/high level bureaucracy (Nesta, 2017).

From our experience, in order to ‘connect the dots’ we as designers must understand and speak various languages within the system.

Presentation of Design Pathways & Continuous Interventions

When talking to a bureaucrat from AIS, it became obvious that an expectation to give Origo the brief was to step away from the details of the software system, and instead provide a more strategic vision for the future of the case handling of financial assistance.

We call this vision design pathways, as they suggest a direction for where to go in order to streamline the casehandling of financial assistance and at the same time improve the service experience for users.

We identified three paths that relate and build on each other. Together, these paths are meant to achieve the official NAV strategy (NAV 2030) that aims to ensure that everyone entitled to financial assistance receives it in a simple and predictable manner. They also support the implementation of the government's trustreform (Kommunal- og distriktsdepartementet, 2022).

The Design Pathways

Automatisation

We automatically gather only the necessary documentation to determine if the citizen can receive financial support - and this process is quick regardless of district affiliation.

Coordination

Updated information about the citizen's situation is structured in the system. Proposed decision texts are generated automatically based on structured information, standardized rates, and standard texts.

Integration

We streamline bureaucratic processes. State and municipal benefits and systems are coordinated and synchronized.

> NAV strategy: Everyone receives the money they are entitled to – easily and predictably

Fig 23. Three design pathways.

Design Sketches

To give an idea of how the suggested design pathways could materialize, we added design sketches to our presentation though expectation of this were not explicitly stated. We see these sketches more as a way to spark discussions and reflections than an actual design of or for the future.

“We hope to get a richer wealth of ideas, to look up and have a wider vision.”

Bureaucrat city council

Citizen's application

The screenshot shows the 'Søknad om økonomisk sosialhjelp' (Application for economic social assistance) form on the MittNav.no website. The form is titled 'Søknad om økonomisk sosialhjelp' and includes a user profile for Ola Normann. The form asks for personal information and the reason for the application. The user has selected 'Livsopphold' (Living conditions) as the reason. The form also lists documents that will be automatically retrieved from the tax authority, the bank, and other systems: 'Skattemelding (tidligere selvangivelse)', 'Bostøtte', and 'Arbeidsforhold og inntekt'. A 'Send søknad' button is visible at the bottom right of the form.

MittNav.no AWO

Logg inn på MittNav.no > Søknad om økonomisk sosialhjelp

Søknad om økonomisk sosialhjelp

Ola Normann
Fødselsnummer/ D-nummer: 12345 67891
Oslogate 1, 1001 Oslo
90 90 90 90
Telefonnummer: 90 90 90 90
E-post adresse: Navn@epost.no
Bankkontonummer/ Kroner kortnummer: 987654321

Søknad om økonomisk sosialhjelp

Hva søker du om? **Økonomisk**

Kryss av en eller flere biter

Livsopphold
 Husleie
 Strøm
 Annet

Vi innhenter følgende informasjon automatisk fra Skatteetaten, Husbanken og andre systemer:

- Skattemelding (tidligere selvangivelse)
- Bostøtte
- Arbeidsforhold og inntekt

Hvis dette er din første søknad, kaller vi deg inn til en samtale med oss innen 2 dager.

Send søknad

Case handler's overview

The screenshot shows the 'Nav Journal - BydelNavn' (Case handler's overview) for the application. The case is for Ola Norman, with birth number 12345 67891 and case number 987654321. The address is Oslogate 1, 1001 Oslo, and the phone number is 90 90 90 90. The email is Navn@epost.no. The case is currently in the '2 - Vedtak' (Decision) stage. The overview shows the case history: '1 - Kartlegging' (Mapping), '2 - Vedtak' (Decision), and '3 - Oppfølging' (Follow-up). The case is titled 'Søknaden gjelder' (The application concerns) and lists the documents that are available for retrieval: 'Skattemelding (tidligere selvangivelse)', 'Bostøtte', and 'Arbeidsforhold og inntekt'. A 'hent dokumenter' (Retrieve documents) button is visible at the bottom right of the overview.

Nav Journal - BydelNavn AWO

Ola Norman
Fødselsnr. 12345 67891
Saks. nr. 987654321

Oslogate 1, 1001 Oslo
Tlf. 90 90 90 90
Navn@epost.no

1 - Kartlegging **2 - Vedtak** **3 - Oppfølging**

Søknad fra 01.10.2023 kl 14:31

Søknaden gjelder

Livsopphold
 Husleie

Følgende dokumenter er tilgjengelige til innhenting:

- Skattemelding (tidligere selvangivelse)
- Bostøtte
- Arbeidsforhold og inntekt

hent dokumenter

Send møteinnkalling >

Chat

Structured information generates a tailored decision letter

Nav Journal - BydelNavn

Ola Norman
Fødselsnr. 12345 67891
Saks. nr. 987654321

Oslogate 1, 1001 Oslo
Tlf. 90 90 90 90
Navn@epost.no

Familiesituasjon >
Boforhold >
Arbeidsforhold >
Økonomi >
Historikk >

Send møteinnkalling >

Chat

1 - Kartlegging 2 - Vedtak 3 - Oppfølging

Vedtak gjelder
Informasjon hentet fra forrige saksnr.
Livsopphold, husleie

Beløp
Automatisk beregnet ut fra standardiserte satser
12 300 kr

Velg periode
Legg til fra og til dato for utbetaling av hjelpen
DD.MM.ÅÅ DD.MM.ÅÅ
 Velg samme utbetalingsdato som på andre ytelser

Skriv begrunnelse
Plassholder 0/100

Skriv krav om aktivitet
Plassholder 0/100

Forhåndsvisning Opprett

Easy to read decision letter

MittNav.no

Din søknad om økonomisk sosialhjelp er godkjent.

Nav saksnummer: 123454321
Fødselsnummer: 222222 22222

Vedtak

Du får 10 500 kroner for perioden 01.12.2023 - 31.12.2023, fordi du ikke har nok penger til å betale utgiftene dine til nødvendige levekostnader i denne perioden.

Utbetalingsdato er 01.12.2023. Pengene er tilgjengelig senest 2 dager etter utbetalingsdagen. Hele beløpet utbetales til deg på bankkonto som engangsbeløp.

Krav om aktivitet

- Du må søke bostøtte på: www.husbanken.no

Vi har satt av tid torsdag 8. desember kl. 12.30 på Nav BydelNavn, der du kan få hjelp for å søke om bostøtte og får stanset utleggstrøkket.

I de to neste sider kan du lese om:

- Hvordan vurdering foregikk
- Klageprosessen

Ved spørsmål, ta kontakt med din veileder på tlf. 90 90 90 90

Med vennlig hilsen,
Veileder
Nav BydelNavn

A NAV journal

Nav Journal - BydelNavn

Ola Norman
Fødselsnr. 12345 67891
Saks. nr. 987654321

Oslogate 1, 1001 Oslo
Tlf. 90 90 90 90
Navn@epost.no

Familiesituasjon >
Boforhold >
Arbeidsforhold >
Økonomi >
Historikk >

Send møteinnkalling >

Chat

1 - Kartlegging 2 - Vedtak 3 - Oppfølging

Aktuelle vedtak

- § Vedtak Økonomisk Sosialhjelp (Livsopphold og husleie)
03.10.2023 - 03.11.2023
12 300 kr
utbetales 15.10.2023

Annet

- Mottar kronekort 03.10.2023

Send pin kode til kronekort

Possible Interventions

In order to show that there is not one magic fix to streamline the casehandling, we suggested four concrete initiatives that could support the transition towards reaching the suggested design pathways. We also indicated which actor should be responsible for the intervention.

1. Intervention: Work with better overview over applicants in the software system Fasit. Facilitate that this information can be automatically weaved into decision letters.

Actor: Health agency together with NAV offices

2. Intervention: Automate decision letters for supplementary applications such as electricity, holiday supplements and refusal of already granted service. Automate decision letters for changes in payments.

Actor: Health agency together with NAV offices and AIS

3. Intervention: Guidelines on what documentations should be obtained for assessment of application & how to handle district affiliation. Possibly through an updated joint letter.

Actor: City council department for labour and social services in Oslo together with NAV offices

4. Intervention: Continue the work so that the tax report can automatically enter Fagsystem upon application.

Actor: City council department for labour and social services in Oslo together with KS, Tax authorities, NAV stat (Digisos)

Reflection: On Prototyping and Continous Interventions

Designers use prototypes to evaluate whether the object they've designed has the desired effect on the user. In this case, wireframes or digital prototypes were utilised to illustrate how the concepts of "automatization," "coordination," and "integration" could become part of the case handling process and of the interfaces used by applicants and case handlers to assess financial assistance. These wireframe-prototypes facilitated more meaningful conversations about the feasibility of the design paths by providing concrete examples of how these approaches could be implemented in the long term.

Creating sketches and illustrating an idea of a future where NAV is not just one unity on the "front stage" – to use service design linguistic -, but also one unity backstage, was helpful in communicating our intent. We do not expect those sketches to turn into a digital product. They are too preliminary to serve that kind of purpose, but they worked well in order to open thoughts and discussions.

Traditional design processes focus on the final product as the main intervention. In contrast, systemic approaches recognize that interventions occur throughout the design process, starting with boundary critique and ongoing actions to foster sustainable change within the system. This holistic view ensures that the designed product is just one part of a broader effort to create lasting impact.

Birger Sevaldson (2022) stresses moreover the importance of creating multiple design visions that can help "*us avoid the urge to fixate on certain limited and singular ideas, and work instead towards versioning approaches and other dynamic, flexible, and future-oriented ways of generating design output.*" (p. 343)

In the case of financial assistance, we became more aware of the numerous interventions that occurred during the process in addition to the "final" design pathways. For instance, the conversations fostered during the process, the connections made during workshops, and the presentation of results to stakeholders at all levels of the hierarchy were all significant interventions. To use Sevaldsons words, we see these interventions through conversations, together with our prototypes and design paths, as flexible and future oriented ways of designing.

Prototype

"A prototype is an initial model of an object built to test a design. The word prototype comes from the Greek "primitive form". The prototype helps the designer to see and test the design in action" (Blackwell & Manar, 2015).

Wireframe

A wireframe is an early sketch or prototype that represents a digital interface and aims to test the design of a digital interface in action.

Intervention

"Purposeful action by a human agent to create change" (Midgley, 2000).

Systemic Intervention

Purposeful action by a human agent to create sustainable change for the better in relation to a critical reflection upon boundaries (Midgley, 2000).

Reflection: On the Possible Implementation

Since the delivery stemmed from a collaborative effort involving key stakeholders from financial assistance, the outcomes may not have been particularly groundbreaking or surprising to them. During discussions, it became evident that most of the proposed ideas had been previously suggested or tried. Additionally, it was unsurprising to find parallel processes both within and outside the municipality, tackling similar challenges with solutions akin to those proposed above. This is common when working on service development in the municipality: discovering parallel processes addressing the same objectives happens frequently during exploration and validation phases. All of this prompts us to question why previous attempts may have failed to be implemented and what new initiatives are underway.

One reason implementing these suggestions is challenging is the high number of stakeholders involved, making it difficult to identify who is responsible for coordinating the service improvement process and how this should be done. Each entity typically focuses solely on their specific area and addresses only what is mandated by directives and budget allocations. Moreover, there is significant emphasis on meeting predefined goals (quantifiable gains) to accurately report back to the city council. This scenario makes it difficult for entities to collaborate to deliver a better service; instead, each tries to assert its own priorities or works in isolation to deliver their part. One of the intentions to involve service designers was that it was necessary to take a more systemic look at the service from different perspectives by involving various stakeholders in the mapping and ideation process.

Furthermore, many of the proposed opportunities and interventions involve significant technological development and substantial organisational restructuring, meaning that implementing even a small portion of them could be difficult and time-consuming. For instance, achieving automation necessitates the coordination of multiple actors and components within the system. Primarily, a deeper understanding of user needs through extensive user research is imperative to comprehend the potential implications of automated data sharing on citizens. An unintended consequence may arise, such as citizens harbouring apprehensions towards a seemingly omnipotent government with unrestricted access to sensitive personal information. This apprehension could potentially be mitigated by requiring active consent from citizens for data sharing, akin to the current practice of obtaining consent through forms. Alternatively, services could be mandated to access documentation only when there is documented cause to doubt the information provided by the citizen.

Navigating this terrain requires NAV offices to establish consensus on the essential data required to assess eligibility for financial assistance. However, this presents a formidable challenge, given the varying organisational cultures, leadership styles, and interpretations of best practices across NAV offices, as discussed previously. Additionally, facilitating data sharing entails significant costs, as it demands specialised technical expertise to establish digital infrastructure and APIs.

Prior to embarking on the implementation of digital infrastructure, a comprehensive legal review is imperative to ascertain the feasibility of data sharing within the existing legal framework. Should the review reveal legal barriers to data sharing, proposing legislative amendments becomes necessary. However, this process is inherently time-consuming, potentially spanning several years, depending on the magnitude of the proposed changes.

It is also unsure who should take responsibility (and the costs) for such an endeavour. Some might say that Oslo as the biggest municipality has a responsibility to spark such initiatives, while others may say it's important to also include other municipalities and their needs and thus it falls under KS mandate. However, being a minor welfare service with relatively small user numbers and costs, the question always remains if this work gets prioritised or not.

The primary goal of our design paths has been and continues to be sparking conversations among stakeholders and challenging the status quo to expedite positive change.

Further Exploration of Future scenarios

Following the delivery, we decided to explore other solutions, focusing not on the brief and effectiveness as the main value but also on other values like trust, empathy, stability, and preventive measures. This exploration will be presented in the appendix under “further explorations.”

Future scenario 1: Trust

What if we trust what the citizen is telling us without asking for evidence or documentation? What if trust is one of the underlying values of the service? What if trust is the core value of the system?

Further explorations around this scenario can be found in:
Appendix E1/E2 – Further explorations: Trust (Vedlegg 1 - Appendix.pdf, p. 22-23)

Future scenario 2: Financial stability first, then the rest

What if we provide the economical support first and then start to map out the situation together?

Further explorations around this scenario can be found in: Appendix E3 – Further explorations: Financial stability first, then the rest (Vedlegg 1 - Appendix.pdf, p. 24)

Future scenario 3: Individual assessments

What if we use more time to understand the individual’s situation instead of trying to fit the individual situation into our service categories?

Further explorations around this scenario can be found in: Appendix E4 – Further explorations: Individual assessments (Vedlegg 1 - Appendix.pdf, p. 25)

Furthermore, we tested storytelling as a tool to understand the system’s complexity and to address the question: How can stakeholders of financial assistance understand the system’s complexity and explore alternative futures?

We crafted narratives depicting current situations and possible future scenarios within the system. These stories aimed to highlight different perspectives and moments, helping stakeholders empathise with various viewpoints and envision a future for financial assistance. The narratives were then depicted and analysed through the lens of institutional logics as described by Nilsson, Prakash and Vink (2022).

The stories can be found in: Appendix F1-F8: Storytelling as a way to understand the complexity of the system (Vedlegg 1 - Appendix.pdf, p. 26-34)

Epilogue

What has happened since

Contribution to Fasit 2025



Given that this project was peripheral to Origo's primary responsibilities, our task concluded once we presented our key findings and recommendations.

However, as in-house designers, we have the privilege of being able to follow the process beyond mere delivery. We see this as an opportunity to continue contributing and observing the evolution of our recommendations.

We would like to highlight three post-delivery activities that we view as part of an ongoing conversation, shedding light on the potential impact of our work.

Exploring why data sharing initiative had stopped

Low hanging fruits

What Has Happened Since?

Contribution to Fasit 2025

We were invited to share our key findings and strategic vision for inclusion in a report aimed at proposing enhancements to the Fasit software system used for case handling (Helseetaten, 2023, unpublished). This report, with our contributions, has catalysed the formation of a new collaborative team between the health agency and Oslo Origo. Initially, this team will undertake two primary objectives: migrating the software system used for financial assistance to the cloud and thus potentially saving the municipality 10 million NOK annually, and in addition working actively with the automatisisation of the case handling process, thus freeing up time for case handlers. One of us will join the team. Here, we see that systems oriented design will play a key role in moving through the complex landscape of the service in order to implement changes on multiple levels.

Exploration of Why There is No Data Sharing

After delivering our presentation, we were eager to explore the avenues for implementing some of our key findings. One question we tried to find answers to was why there was no automatic access to the tax returns of applicants to the service. Case handlers expressed in our workshops that it was time consuming to get this type of information and they had requested automated access for a long time.

We engaged in discussions with various stakeholders:

- Our manager
- A colleague who had previously collaborated with KS to facilitate access to tax authority data for municipal services
- A service designer from DigiSos
- Bureaucrats at KS
- Bureaucrats involved in the “holistic follow-up of NAV users” initiative

While the need for accessing the data was acknowledged, it appeared to have low priority due to substantial juridical and technical considerations and costs. Our colleague mentioned her prior involvement in an initiative at KS aimed at enabling such access, indicating that progress had been made before it halted upon her return to Origo. She expressed confidence in the feasibility of resuming and completing the initiative with relatively low effort.

However, when we approached KS, they indicated that the initiative lacked sufficient organisational support and clear responsibility, resulting in it being shuffled between the municipality, KS and the governmental part of NAV. Nevertheless, there were indications that higher-level leadership was now poised to address this issue. While it's uncertain whether our inquiries directly prompted this renewed attention, we'd like to think that our efforts helped reassert the importance of the issue within the organisations involved.

During discussions with bureaucrats and case handlers from the 'holistic follow-up' initiative however, there was scepticism regarding the necessity of automated access to data from tax authorities. They emphasised the importance of NAV asking for less documentation, thereby placing greater trust in service users. According to them, establishing trust was pivotal in building a meaningful relationship with users, allowing for a focus on assisting them rather than scrutinising their eligibility for services.

Thus, yet again, we see the complexity of the service and how what is being perceived as an improvement by some, can be seen as harmful (or at least not helpful) by others. And while trust doesn't need to be at the cost of easy access to data when needed, it is, as often, a question of resources if this is worth the job to be done.

Thinking in line with the three horizons model, automating the access to tax information can be seen as a means towards a service where less documentation is required and trust is at the core. Once the automatic processes are in place much of the case handling can be automated and case handlers can focus their attention to conversations with and coaching of people struggling with their financial situation - either helping them find a job or guiding them to a better balance between expenses and income.

Work With Low Hanging Fruits

Our colleagues from the health agency pointed out that our findings and design paths were beyond their responsibility or area of influence. We tried to dig into this by asking them to help us identify responsibilities. This proved to be more difficult than first anticipated as responsibilities and roles are often foggy and undefined. Furthermore, what one thinks may be the responsibility of someone else doesn't mean that they would agree.

For instance, a case handler expects strict guidelines from the city council department on how to handle district affiliation, but the city council does not see themselves in a position where they are responsible for giving those guidelines. Or another example is the design of templates used for writing decision letters to citizens, which is handled by a third department in the municipality. The reasons seem to be historical rather than a result of a well thought through organisation.

We also identified low hanging fruits under each design pathway – simple tasks that the software system experts could immediately start working on. These were much easier to define and approach. Probably because these had already been thought about before and it fitted the usual way of working by finding smaller, more hands-on adjustments and improvements to the software system.

Reflection: The Systems Oriented Designers' Role in Implementation

It was interesting to observe that the moment our colleagues had identified the small improvements, we service/systems oriented designers were out of the picture. The improvements were so specific that it did not seem to require our type of design expertise but rather the help of UX designers in order to guarantee for example a user friendly interface. At the same time we were maybe also not completely sure if it was the right thing to focus on. This observation made us reflect on the role of the systems oriented designer in implementation processes.

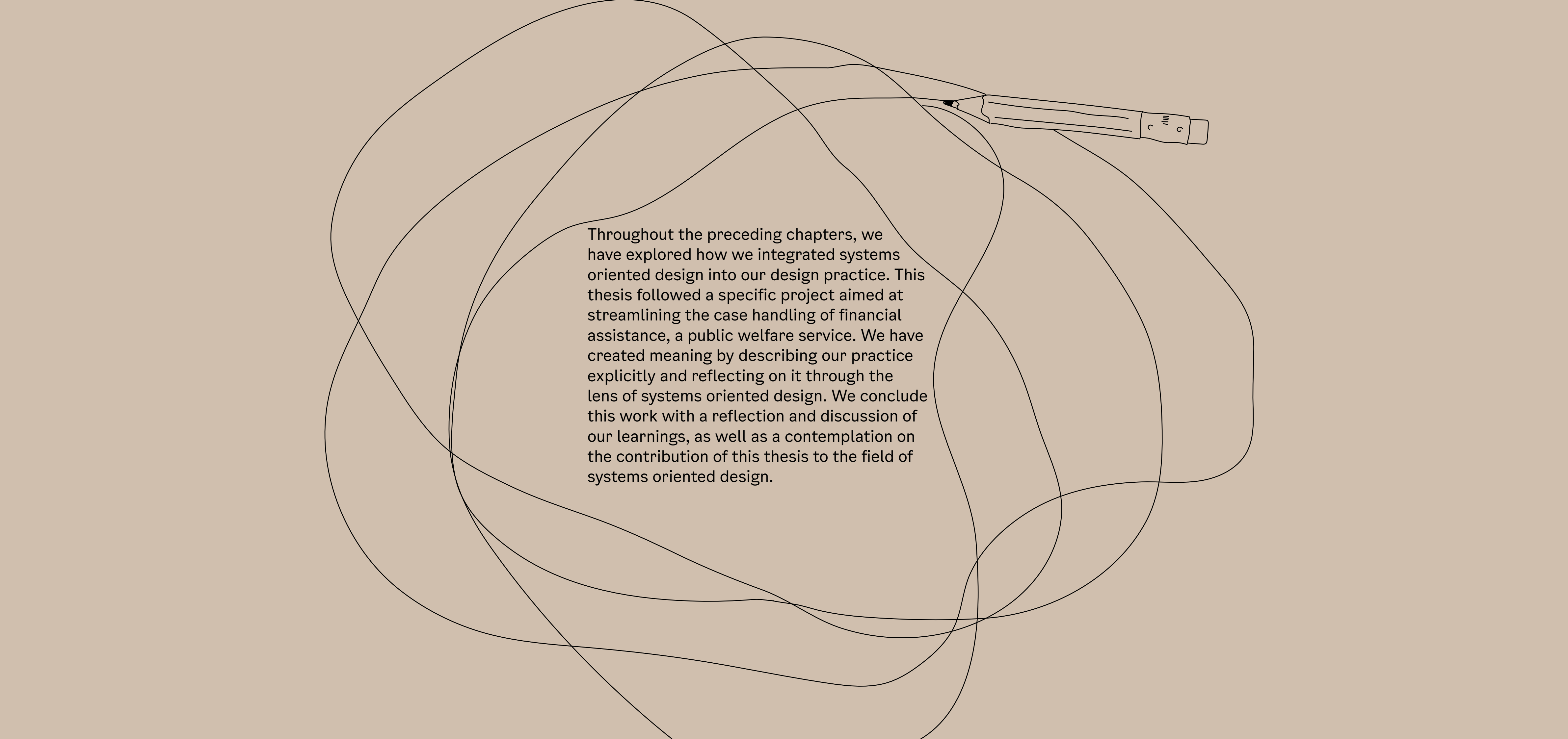
It might depend on the competence of the individual service or systems oriented designer if they will be able to contribute with other design skills such as UX design, graphic design or product design in the implementation phase. However, it seems realistic to say that one should not expect to get an expert in all design disciplines from a single designer. Maybe the role of a systems oriented designer in implementation can be the one of orchestrating different initiatives and stakeholders, while continuously strengthening relations and ensuring that all perspectives are heard and taken care of. We also agree with Wettre and Christodolous who write that *“we argue that a more overlapping approach to development and implementation is needed to deal with complex issues.”* (Wettre & Christodoulou, 2022, p. 1). Thus there will not be the divide between the research or investigation phase and implementation as we experience it now.

In our work with financial assistance, we were not able to contribute (yet) with orchestration in implementation. The moment we delivered our presentation, we had sent it into a black hole not knowing what would happen further. And for as long as we have the “order and supply” mindset and established hierarchies in public service development, this might not change. Unfortunately this often results in the planning trap: reports after reports are written but no change is implemented.

Still, we hope that our further engagement with financial assistance can shine light on if having a systems oriented designer on board, together with using agile methodology, can create the desired systemic changes with research, design and implementation going hand in hand.

Discussion

SOD Elements • Mindset • **Contribution** ■ Limitations

A pencil is positioned horizontally in the upper right quadrant of the page. A large, intricate, hand-drawn scribble of overlapping, irregular loops surrounds the pencil, extending across most of the page. The scribble is composed of several thin, black lines that cross and overlap themselves in a complex, organic pattern. The pencil is a simple line drawing with a sharpened lead tip and a small eraser at the other end. The background is a solid, light beige color.

Throughout the preceding chapters, we have explored how we integrated systems oriented design into our design practice. This thesis followed a specific project aimed at streamlining the case handling of financial assistance, a public welfare service. We have created meaning by describing our practice explicitly and reflecting on it through the lens of systems oriented design. We conclude this work with a reflection and discussion of our learnings, as well as a contemplation on the contribution of this thesis to the field of systems oriented design.

“It matters what matters we use to think other matters with; it matters what stories we tell to tell other stories with; it matters what knots knot knots, what thoughts think thoughts, what descriptions describe descriptions, what ties tie ties. It matters what stories make worlds, what worlds make stories.”

Donna Harraway

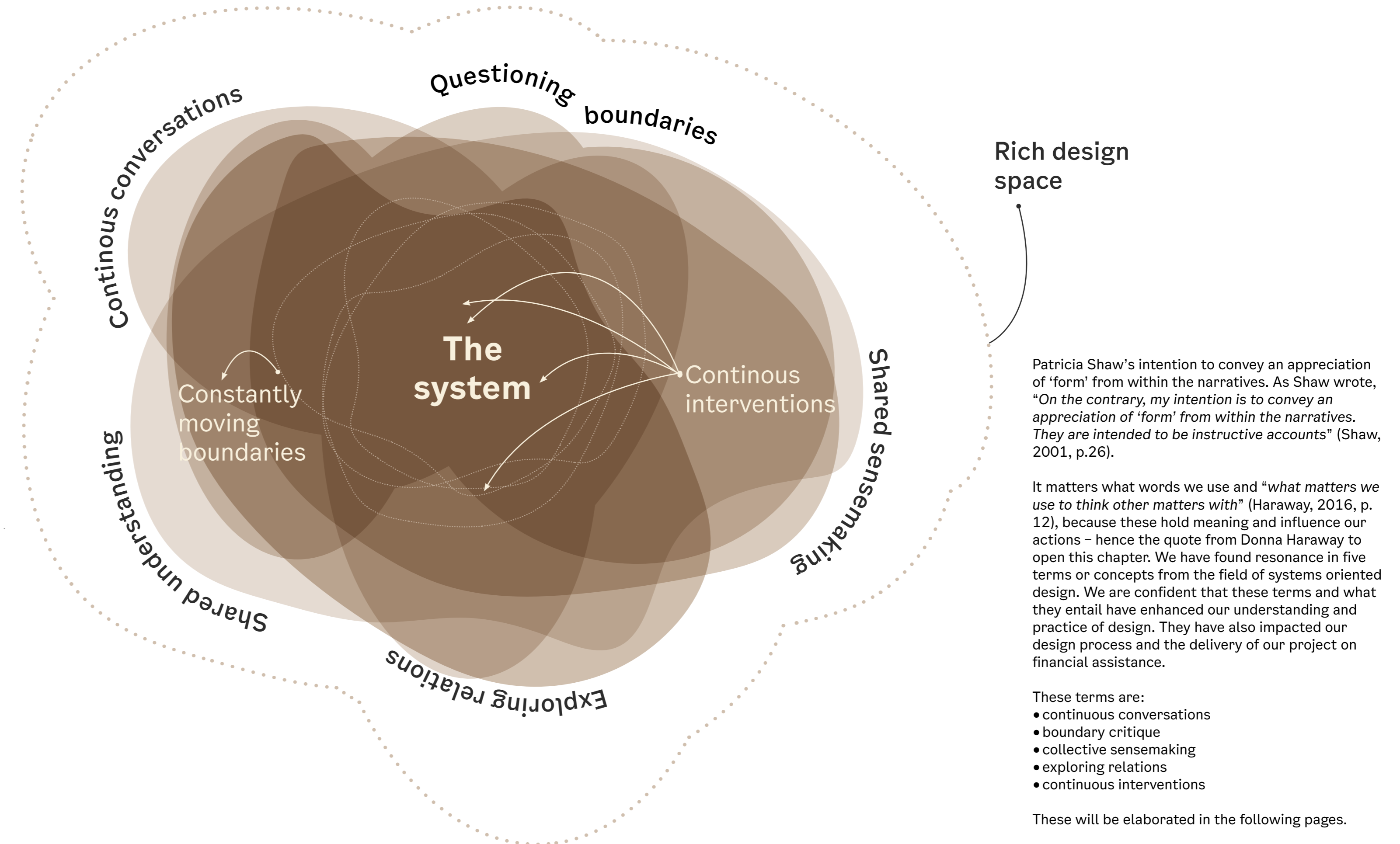
Learnings from Practising SOD

In adopting a more systems oriented approach in our design project, our goal was to achieve better design outcomes. This raises the question: did we succeed in designing better solutions?

This question is difficult to answer definitively, as this work aligns more with research through design than with a scientific experiment conducted in a controlled environment. The uneasy feeling of never being able to definitively say that we have designed a better service is linked to both the dynamics of systems and the concept of design as a practice of approximating the ideal (Nelson & Stolterman, 2012). We can never know if we would have done better had we taken a different approach (Rittel & Webber, 1973).

However, we trust our professional experience, expertise and our intuition. Throughout the text, we share our stories of how systems oriented design provided us with new insights and ideas for approaching our tasks. This underscores the fact that systems oriented design has indeed contributed to our practice and to designing better solutions. Yet, we also reflect on the challenges we encountered.

We do not wish to conclude this document with a universally applicable model, prescription, or guide. Instead, we share our stories and reflections, aligning with



Continuous Conversations or Understanding Conversations as a Material for Design

Throughout our reflexive design process, we have emphasised the importance of continuous conversations. This does not imply that conversations were previously broken or discontinued before we integrated a systems perspective. Conversations are inherent in all design projects. However, systems oriented design has heightened our awareness of the emergent quality of these conversations within design processes. A deeper exploration of the background of the brief in this thesis could have fostered better continuity. As designers, consistently seeking background information might, over time, help establish more effective feedback loops within the municipality.

A conversation always carries potential, but what emerges from it results from a complex interplay of various factors. The success of this approach heavily relies on the active and sustained engagement of stakeholders. Ensuring consistent and meaningful participation can be challenging, especially in contexts where stakeholders have competing priorities or limited availability. As designers, we have come to realise and accept that we do not control these factors. Nonetheless, we recognize the significance of trying to initiate diverse conversations and using our design skills to sustain engagement – not only to foster shared understanding but also to facilitate emergence and promote change without needing to control what emerges (Solsø & Thorup, 2015).

At times, it feels uncomfortable to relinquish control. The emergent nature of conversations and their outcomes can make it also challenging to measure their direct impact on the design process and final outcomes. This can pose difficulties in justifying the approach to stakeholders and in assessing the success of the design. However, we have found it both helpful and reassuring to understand how we can design for emergence within the system by perceiving conversations as design material (Romm et al., 2020). By nudging the flow of conversations (Stacey, 2007) and potentially altering mental models, we can lay the groundwork for systemic changes (Vink et al., 2019; Vink et al., 2020).

Boundary Critique

Questioning boundaries has been an ongoing discussion among ourselves and with other stakeholders. We have asked questions such as: How important are user perspectives in addressing the brief? Who should be invited to participate in workshops? Should we establish closer ties with an ongoing initiative that takes a holistic approach to supporting NAV users? Should we explore the underlying reasons

why people need financial assistance and how to prevent it? Additionally, how should we address findings such as NAV spending considerable time finding housing for users, which introduces a new set of challenges?

Boundaries also played a significant role in analysing our findings. We continuously reflected on what is excluded when we categorise findings in certain ways. This heightened awareness of where and how we draw boundaries, along with the discussions and reflections it spurred, has significantly contributed to our design practice. Questioning boundaries distinguishes our approach from the concept of “scope” in digital product development. While scope establishes clear boundaries to deliver value quickly, as systems oriented design practitioners, we constantly reflect on what is excluded by these boundaries. This critical perspective helps us avoid what Churchman describes as an “*improvement given a narrowly defined boundary may not be seen as an improvement at all if the boundaries are pushed out*” (Midgley, 2000, p. 137).

Despite its importance, questioning boundaries remains challenging within our workplace. Our critical approach is often perceived as causing delays that are not grounded in facts or numbers but rather in intuition and ethical considerations. These “soft” attributes make it difficult to demonstrate the tangible effects of our considerations, such as improved service quality or cost savings. Consequently, it remains challenging to justify the importance of questioning boundaries.

Collective Sensemaking and Shared Understanding

In the workshop descriptions, we reflect on how collective sensemaking influences the actions of participants and the system as a whole. We also emphasise the importance of ensuring shared understanding among all stakeholders when presenting our findings. This fosters alignment, builds trust, and facilitates effective decision-making.

Systems oriented design has provided us with methods such as gigamapping and rich design space, which help create environments conducive to various ways of understanding a complex subject or situation. As previously noted, we valued the use of both digital and physical rich design spaces as collective memories that supported ongoing shared understanding. Responses to these spaces varied. Some colleagues expressed enthusiasm and appreciation for the depth of information, while others seemed almost intimidated by its richness. Understanding the rich design space as an actant that affects actors and the social system (Latour, 2005) requires us as designers to be mindful of how we introduce and engage people with the space. It does not mean that we shall not allow ourselves to provoke – sometimes that is exactly what we have to – but we have to be aware of our intention and be sensitive to the responses.

Rather than focusing on rigid agendas or overly structured workshops, the methods and mindsets of systems oriented design encourage spaces that allow for spontaneous interactions and emergent sensemaking processes. This approach values the informal, iterative, and non-linear nature of human interactions, recognizing these elements as crucial for constructing, collaborating, and creating effectively within complex systems (Shaw, 2003).

Our experience of involving others in working with complexity, and using methods such as the rich design space, demonstrates that a sensitive approach, patience, and support are necessary to help others become familiar and confident with these approaches. As Birger Sevaldson commented to us: “*Complexity hurts and grappling with it gives you a headache but also great rewards*” (Sevaldson, personal communication, 2024). While we may not engage everyone happily in working with complexity, the aim of our work is not to please everyone.

Exploring Relations

“*Designers are often accused of being overly concerned about ‘things’ in a superficial way, turning every design challenge into an app, for example. System-conscious designers recognise that the interactions and dynamics between people, things, and environments are just as much the ‘material’ of systems as those ‘material things’.*” (Drew et al., 2021)

While it is evident that examining relationships is crucial for systems-oriented designers, capturing and conveying the materiality of these relationships and the dynamics involved remains challenging. Most stakeholders are still accustomed to a mechanistic and reductionist mindset. In the public sector, this often translates to thinking in terms of specialisation and defined tasks. Mechanistic and reductionist perspectives treat phenomena like “*clockwork toys: predictable, functional, inherently understandable objects seen from a discrete distance by an independent subject*” (Midgley, 2000, p. 39). Other stakeholders might lack the knowledge to work effectively with the complexity they observe.

To address this, it would be beneficial to explore practical methods for emphasising relationships in real-life projects. Tools such as service blueprints or gigamaps are helpful for connecting the dots and understanding how different stages and tasks in service delivery are interrelated. Our experience shows that it remains challenging to capture the full complexity of relationships visually with these tools. At some point, we tend to get lost in a web (or mess) of lines or become exhausted by attempting to visualise all the details.

On another level, reflecting on the importance of relationships in systems-oriented design has led us to rethink the role of the facilitator, which service designers often assume. We believe this role can be expanded, and we have embraced the term “weaver” (Wahl, 2018). A weaver builds or weaves relationships across all levels of the system, fostering coordination and creating conditions where interactions between stakeholders and other elements can emerge in various ways. This expanded role empowers designers to focus on creating environments conducive to new initiatives rather than solely concentrating on product or service development.

Facilitators have significant influence as they guide conversations and select methods to nurture shared understanding and new realities. The role of the weaver further enriches this by allowing diverse intentions to emerge, strengthening relationships, and coordinating initiatives, all aimed at improving conditions for everyone within the system.

Continuous Intervention or the Use of ‘Acupuncture’ as a Design Technique

With building a deeper understanding for systems through systems oriented design, we realise that if we want to see change happen, we have to look at all layers of the system simultaneously and think about small interventions and long-term goals at the same time. Even from our position (meaning a position without any formal decision power), we can find leverage points such as sparking conversations, presenting ideas, sketching possible futures, asking questions and following up these conversations. A key is curiosity paired with courage: not telling stakeholders what to do, but asking questions about what they think is possible, what they consider to be important, why they believe initiatives stop, why initiatives are not seen in relation to each other and asking questions to find out where responsibilities lie.

We start thinking about these leverage points as ‘acupuncture’: intentionally planting needles in different layers of the organisation, trying to unblock flows while at the same time not being able to control how the organisation reacts and what results we create. This approach is thus again about letting go of control while still being intentional.

We would argue that this is a realistic approach within the context we find ourselves in, however it is difficult to trace change – and in a current paradigm where everything needs to be measured and where the public sector is obsessed with proving effects, it might not become the new status quo but rather stay where it is now: an informal approach that goes under the radar of many, yet potentially being highly influential without the need to control or prove it.

Contribution Additional Mindshifts

This SOD thesis contributes with unique insights from design practice to the knowledge field of systems oriented design. The work paints a realistic picture of a situation many designers in the public sector meet. We discuss tactics to be able to work systems oriented in environments and from hierarchical structures that do not seem to necessarily fit for working systems oriented. Our hope is that this thesis will provide inspiration and knowledge to other design practitioners who find themselves within similar settings.

We aim to further contribute to systems oriented design (SOD) by suggesting three additional mindsets to the five already proposed by Birger Sevaldson (2022, p. 15). These mindsets are derived from our experiences and reflections throughout this SOD thesis:

The Sixth Mindset: Embrace Humility and Be Courageous

Systems oriented design is a humbling experience, unveiling the intricate web of relationships that constitute complex systems. It underscores the inadequacy of any single actor's understanding, emphasising the collective intelligence embedded within the system's interactions. This awareness instils a sense of humility and redirects the focus from asserting control to conscientiously fulfilling one's role within the system's ecosystem. It is crucial to recognize each individual's capacity to influence systemic dynamics, regardless of hierarchical standing. This requires courage, as the systems oriented designer needs to bravely engage with other actors, build relationships, unblock flows, and find creative ways to intervene in the system to effect desirable changes.

The Seventh Mindset: Foster Emergence

Working with systems shifts the focus from prescribing definitive solutions to catalysing dialogues and fostering emergent possibilities. This empowers a systems oriented designer to engage in dialogue and catalyse initiatives across all levels of the system, nurturing conditions conducive to emergent phenomena. A systems oriented designer is intentional, knowing where to intervene and what to achieve, yet cannot fully control what emerges from the intervention. This also prompts critical self-reflection on positionality and responsibilities, fostering a deeper understanding of the designer's personal motivations and potential unintended consequences of their designs.

The Eight Mindset: Designing as Weaving

The systems oriented designer is a weaver of relationships across all levels of the system. A weaver builds bridges between different professional silos and sectors of society (Wahl, 2018), identifying gaps where things fall between two stools. They see links between elements, actants, and initiatives that others might miss, empathising with the different perspectives they aim to involve and weave together (Wahl, 2018).

Critical Reflections

These mindsets highlight the delicate balance systems-oriented designers must maintain. How do we ensure we don't become passive or cynical while simultaneously giving up control and acknowledging our limitations? Are we asking too much of ourselves when we need to be strong in our stance but also humble and open to multiple ways of knowing? In a world where designers are still expected to provide a solution, how can we promote more emergent offerings? This is where the courage of the systems oriented designer is essential. However, it is also important to acknowledge that working as a systems oriented designer can be overwhelming, often feeling like swimming upstream. We strive to stay positive, reminding ourselves that with practice, this will become easier.



The five changes in mindset suggested by Sevaldson (2022, p. 15)

Systems are everywhere

Everything can be interpreted in the context of systems

Look beyond the object

Move attention from object to relations

Systems are dynamic

What seems stable is just moving very slowly

Look for the “Gestalt” of the system

rather than understanding the sum of its fragments

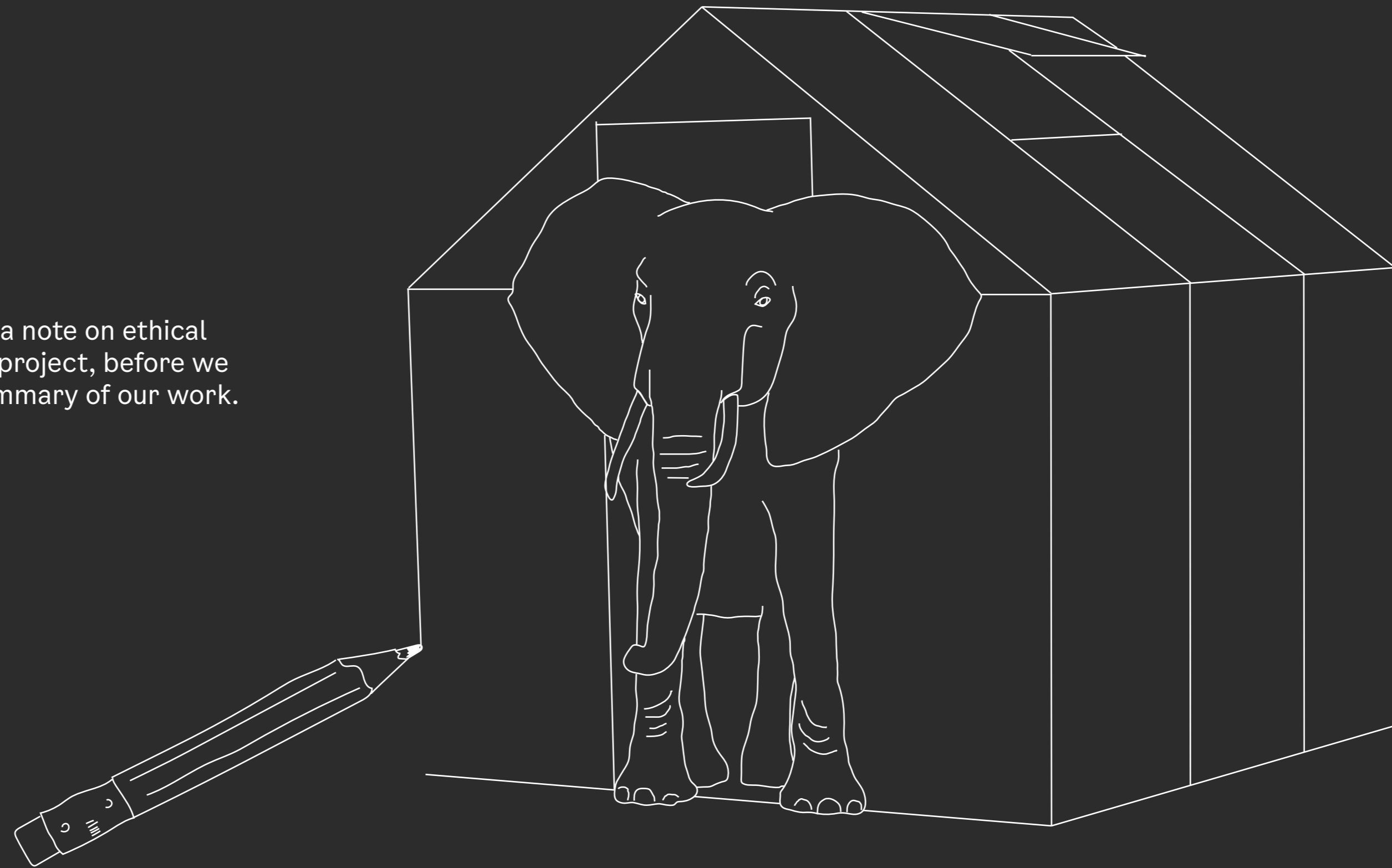
Designing means working with systems

Designing is potentially the best way of dealing with systems

Validity

Ethical Considerations • Limitations

Finally we will end this thesis with a note on ethical considerations and validity off the project, before we round off with a conslusion and summary of our work.



Validity of Our Work

In design and real-world research (Robson, 2002), each project or case is unique which can pose challenges to generalise our findings. If we would do the same project again – would we have similar results? Most likely not. Still, we have used triangulation (Yin, 2009) and methodological pluralism (Midgley, 2000) throughout working with the design project, in order to maintain data from different perspectives and get a rich perspective on financial assistance. Due to the brief we received, the perspectives of case handlers might have weighed more heavily when trying to solve the brief. Furthermore, as designers, we have a tendency to weigh user perspectives higher than the perspectives of other stakeholders in the system, something that might have influenced our design suggestions. As introduced in the preface we believe that our world view, cultural background and values also influence our work with the design project and this SOD thesis, which is the reason for including a short introduction of ourselves at the beginning.

On one hand, using a project that we worked on as practitioners limited our capacity as researchers. We had to deliver, not experiment, and we also had only little time to reflect on our actions. On the other hand, being practitioners within the public sector opened many doors that would have otherwise been more difficult to open and it gave us the opportunity to relatively easily connect with important actors that helped inform the work. The fact that we did this design project as a result of a brief from our workplace and not solely as a student project helped build legitimacy for the project.

The project was on the side of having other responsibilities and tasks. This reflects our everyday work reality and comes with its goods and its bads. For our design project, the limited time led to us being unable to dive deeper into the subject and explore the whole potential of systems oriented design within it. It was easier to fall back on familiar methods such as the service blueprint than to try out something different, especially in settings where other actors were involved.



«We have been involved in something similar before. We do not want to be involved if nothing comes out of it, if no resources have been set aside to work on this in the future.»

Case handler at NAV about service design process

Ethical Considerations and Limitations

Considerations in Relation to the Thesis Content

Given that much of our research was conducted within the framework of our daily professional practice, determining the appropriate timing and method for informing participants about our studies presented a challenge. Nevertheless, we were committed to ensuring ethical research practices, particularly regarding participant consent and data usage.

We opted to verbally inform participants, prior to interviews and workshops, that their data would be used anonymously. While this approach allowed for immediate consent, it lacked the formal documentation typically associated with research ethics. We recognize that providing a written consent form would have been preferable from an ethical standpoint. However, in some instances, introducing written consent forms alongside our explanation of the project's dual purpose as both a research endeavour and a deliverable for the city council department caused confusion among participants.

To address this, we later sent our completed thesis to participants, inviting them to review it and raise any objections to its publication. We acknowledge that expecting participants to thoroughly read a document spanning 30,000 words is a significant request.

Considerations in relation to the design project

In general, it is always challenging to determine precisely whom to invite and which perspectives to include in a project. Although most people reacted positively to contributing to the work, some chose not to participate for various reasons. As designers representing Origo, we feel a responsibility to build trust with all stakeholders, not just in this particular project but in the long term. This is not always as easy as it might seem. Some scepticism expressed by stakeholders about contributing to the project was rooted in previous experiences of investing time and energy in similar processes without seeing any resultant changes. While we cannot fully understand how previous processes unfolded, we are aware that the flow of information is often poor. Information frequently has to travel through multiple departments and individuals within the municipality, or even several public sector organisations, making it difficult to trace links between previous work and future decisions, initiatives, or directions that might eventually reach the place of origin.

As previously mentioned, we try to be considerate of the case handlers' busy schedules. However, no matter how much effort we put into timing the work, we still ask them to take time out from their very busy daily schedules.

Furthermore, financial assistance is a sensitive topic. Users can experience stigma as a result of receiving support from NAV. Taking a glance at the political debate it is clear that not all political parties express sympathy with people receiving support (e.g. Kurseth & Sølhusvik, 2023). The Norwegian government stresses the importance of getting people off benefits and into work life rather than discussing root causes for why people need the support in the first place (Persen, 2023).

In addition it was surprisingly difficult to engage users. We believe that every project certainly benefits from sufficient user involvement, however, in the brief it was formulated that citizen needs should be mapped and taken into consideration to the extent it seemed relevant. The framing did indicate that users' perspectives weren't too important which might have also led to us not trying very hard to pursue them.

We did try to recruit users through various platforms, for instance facebook groups, directly through case handlers as well as physically in a NAV office inspired by the idea of real world labs (Schäpke et al., 2018). Our intent of going to the NAV office was good, we thought it would be a nice gesture meeting the users where they are. However, it turned out to be a situation of two clumsy elephants in a glass house. We brought coffee and buns and posters stating that we wanted to talk to people who had experience with financial assistance. After a while some of the staff reacted to our little stand. It turned out that we did not take care of the duty of confidentiality, which is one of the most important principles at the front desk in the NAV offices. By noon we had a few less buns and no posters, but tried to recruit users through the front desk staff. By 4 PM we went home without any interviews but feeling awkwardly aware that we crossed an ethical line. Yet, we still do believe that the user's perspective is important. We share this story to illustrate how challenging it can be to navigate the landscape of such sensitive topics as financial assistance.

Conclusion

The story you just read unfolds in a complex landscape of public sector giants that are entangled yet poorly coordinated. It zooms in closely on one specific process – case handling – to handle one specific service – financial assistance. Even though the lens has been zoomed into such a tiny detail, there is no escaping the entanglement of the entire welfare system of Norway. Designing in such a context can be both overwhelming and feel like an enormous responsibility. How to grasp, even vaguely, the consequences of our work as public sector designers?

Conclusion & Further Work

Conclusion

This SOD thesis explores a systems oriented design approach to highlight pain points and look at the potential of streamlining the casehandling of the service of financial assistance.

Suggestions for possible interventions in the case handling process and system of financial assistance have been presented to leaders and as we write this thesis, the work runs with the stream of conversations and time and travels on in the municipal system. Meanwhile we have reflected on how SOD has altered our design practice.

As a mindset and practice in constant movement, ever evolving and not quantifiable, it isn't easy to pinpoint the effects of systems oriented design. However, using a narrative form to share our reflections from the process, we tell the stories of how systems oriented design gave us new insights and ideas on how to approach tasks at hand. SOD heightened our awareness of additional, less tangible but highly important elements in the design process, including:

- The importance of continuous conversations and focusing on relations. Doing so by understanding these intangibles as design materials.
- Collective sensemaking and shared understanding to draw in the same direction, yet letting go of control and welcoming emergence.
- Questioning and negotiating boundaries, through staying critical towards one's own work and remaining aware of what is left outside of it.
- Continuous interventions performed as an acupunctural approach to influence flows in the system.

These elements complement, rather than replace, the stages of a traditional service design process carried out in the Municipality of Oslo.

At this point, in the relative beginning of our journey as systems oriented designers, we humbly offer our learnings as suggestive instructions for other designers muddling through the complexity, though we also see the shore of all the unknown land. We look forward to learning and practising more systemic and systems oriented design in coming years.

Suggestions for further work

There are numerous approaches from systems oriented design and systems thinking that we wish to explore more deeply and become more confident in applying to our practice. This includes testing various ways of visualising or communicating relationships, engaging colleagues in boundary critique, and utilising futuring techniques such as the three horizons model, among others.

Our thinking and reflecting have evolved significantly, and we have integrated the systems oriented design mindset further into our professional practice. We observe many small examples from our daily work that demonstrate how we actively incorporate our suggested mindsets – continuous conversations, boundary critique, collective sensemaking, exploring relationships, and continuous interventions – alongside those proposed by Birger Sevaldson.

These mindsets help us navigate the constant complexity we encounter in our service areas. They have influenced how we design workshop agendas, facilitate gatherings, question decisions that overlook the broader context or key stakeholders, involve as many stakeholders as possible to make sense of a situation, and actively create conditions for both small and large interventions to emerge.

We also believe it is essential to share the insights we have gained throughout this systems oriented design thesis. Our reflections and insights are particularly valuable in practical contexts, where opportunities to pause, reflect, and connect learnings to theory are rare. We hypothesise that many other designers in the public sector struggle with inherent complexity and are eager for concrete examples of how to navigate it. This Master's thesis can serve as a valuable resource for them.

More concretely, we are thinking to share our learnings from this SOD thesis at:

- Internal events at Oslo Origo
- As an event for and from Forum for tjenestedesign, an internal network for service designers at the municipality
- We want to propose a presentation to the International Design in Government Conference, Helsinki 2024
- We want to propose a presentation for SDA Norway and maybe also for the next RSD (if we have time)

Most likely other possibilities will emerge that we can't anticipate yet. It looks like our journey as systems oriented designers has just started and we are almost tempted to take another master in a couple of years to reflect on its continuation.



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