Exploring Design Thinking in the Public Sector

A case study on collaboration as a way to develop the Design Thinking mindset

Marie Jakobsen
M.Sc. Service Systems Design
Aalborg University 2024

Thesis information

University: Aalborg University, Copenhagen
Master's Program: M.Sc. Service Systems Design
Project Type: Master Thesis (30 ECTS)
Project Period: Feb 2024 – May 2024
Hand in: May 24th, 2024
Academic Supervisor: Nicola Morelli

Collaborations:
Borgerservice Udvikling/Citizen Service Development
Københavns Kommune/ Copenhagen Municipality
Nyropsgade 7, 1602 København

Title: Exploring Design Thinking in the Public Sector // A case study on collaboration as a way to develop the Design Thinking mindset
Author: Marie Jakobsen, study no. 20220380

1 Abstract and Keywords

This study examines the relevance of design thinking in public sector organizations through a case study of Citizen Service Development (CSD) in Copenhagen Municipality, Denmark. The primary objective is to explore the potential value that a design thinking mindset can bring to non-design public sector entities. Within a design thinking framework, insights were gathered through interviews with Expert Designers, employees, and the department manager in CSD, supported by general research, observations, and a survey.

The findings revealed a lack of internal collaboration among CSD employees. Given that collaboration is a central element of design thinking, this presented an opportunity to promote a design thinking mindset in CSD through formalized collaborative initiatives. The study tested various prototypes using existing collaborative forums within CSD and ultimately proposed a solution based on three key initiatives: creating time for collaboration, creating space for collaboration, and creating a framework for talking about projects.

The case study points out that the design thinking framework is fundamentally different from the project framework in Copenhagen Municipality. In conclusion, however, the case study highlights that the principles of the design thinking *mindset* are highly relevant to the public sector as a way to be innovative and tackle increasingly complex challenges.

Keywords: Design Thinking, Public Sector, Service Design, Collaboration

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2 Introduction

This chapter presents the overall theme for the thesis as well as the motivation behind the project. Furthermore, the learning goals from Aalborg University and the personal learning goals will be described.

Design thinking is a human-centered approach to problem-solving, and is characterized by its emphasis on empathy, collaboration, and iterative processes. The design thinking mindset is characterized by being e.g. exploratory, holistic, and open to uncertainty. On the contrary, public-sector organizations are often characterized by planned processes, accountability, and rationality.

This thesis brings together design thinking and the public sector organization, Copenhagen Municipality and curiously posts the question:

Which aspects of design thinking are relevant for non-designers in the public sector?

This is the foundational research question of this thesis titled: "*Exploring Design Thinking in the Public Sector*". This has been explored by delving into how collaborative initiatives can enhance the design thinking mindset in the department Citizen Service Development in Copenhagen Municipality. Through the case study various prototypes were tested in order to create a feasible potential solution, which will be presented in chapter 7.

This thesis is carried out as the final semester of Service Systems Design Master Program at Aalborg University, in 2024. The reader will be taken through an introduction to the theme as well as methodological approach, onto a literature review which bridges into a case study of design thinking in Citizen Service Development in Copenhagen Municipality. Finally, the insights and results from both literature review and case study will be discussed and the research question will be answered.

The thesis contributes to the design field by generating knowledge about what aspects of a design thinking mindset are adoptable in a public sector – non-design – organization in Denmark.

2.1 Motivation

My motivation for writing this thesis origins from working in different departments in Copenhagen Municipality during my studies and as well as doing an internship in Citizen Service Development on the 3rd semester of my master's studies. Entering the public sector with a 'design thinking mindset' has sometimes been challenging, and occasionally led to contradicting approaches to projects and – in my opinion – undiscovered possibilities. These possibilities are my main motivation to write this thesis.

I personally believe that public services serve a great purpose by helping the citizens in different circumstances through their lives. The overall aim is to help and support people, and this overlying 'why' is a motivating factor for me to work with the public sector.

2.2 Acknowledgements

This thesis is written with Citizen Service Development as a partner organization. The thesis could not have been completed without the support and openness of the employees in Citizen Service Development, in Copenhagen Municipality. I would like to thank everyone who was involved in the creation of this project, participated in testing of prototypes, and showed interest along the way.

Specifically, I would like to thank the Department Manager in Citizen Service Development, Karen Westman Hertz, for giving me space to explore, create and test, and for being willing to take part in the project. I would also like to thank my colleague and thesis mentor, Sebastian Campion, for listening to my countless reflections and providing continuous feedback.

Furthermore, I would like to thank my supervisor, Nicola Morelli, for providing continuous valuable feedback for the project, always suggesting relevant literature, and for having capacity to guide me through the detours of the design process.

2.3 Aalborg University Learning Objectives

Aalborg University describe the following learning objectives for the Service Systems Design Master's thesis (1):

Knowledge:

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

Skills:

- Work independently, to identify major problem areas and adequately address problems and opportunities.
- Analyze, design, and represent innovative solutions.
- Evaluate and address major organizational and business issues emerging in the design of a product-service system.

Competences:

- Master design and development work in situations that are complex, unpredictable and require new solutions.
- Independently initiate and implement discipline-specific and interdisciplinary cooperation and assume professional responsibility.

2.3.1 Personal Learning Objectives

In addition to the learning objectives defined by Aalborg University, I have defined the following personal learning objectives:

- Successfully collaborating with external company: Citizen Service Development, Copenhagen Municipality
- Reaching out to and involving relevant stakeholders
- Testing new possible solutions in a non-design environment – being aware that this might seem foreign to the people involved
- Managing design process and following deadlines on my own

3 Methodological Approach

The following chapter will describe the methodological approach applied in the work with the thesis.

3.1 Design Thinking as a Methodological Approach

In line with the overall theme of the project, the methodological approach used is design thinking. The following paragraphs will describe the methodology – which will be expanded in the following chapters.

Design thinking is a powerful process that facilitates understanding and framing of problems and enables creative solutions (2). It provides a solution-based approach to solving problems, and useful when used to tackle complex problems that are ill-defined or unknown (3).

According to The Interaction Design Foundation design thinking is *"... a non-linear, iterative process that teams use to understand users, challenge assumptions, redefine problems and create innovative solutions to prototype and test. It is most useful to tackle ill-defined or unknown problems [...]"* (4). This highlights design thinking as a methodological approach for ill-defined problems.

The design thinking methodology consists of five phases: empathize, define, ideate, prototype, and test (5).

- Empathize: research and understand the needs of the user.
- Define: identify the users' problems and needs.
- Ideate: find ideas for potential solutions.
- Prototype: create possible solutions.
- Test: try out the solutions.

Design thinking has a human-centric perspective and aims to understand the needs of the user (5). IDEO describe the human-centered approach as follows: *"A human-centered designer knows that as long as you stay focused on the people you're designing for—and listen to them directly—you can arrive at optimal solutions that meet their needs."*(3). This highlights the need of keeping the user at the center.

Another important aspect of design thinking is iteration. The International Design Foundation describe it as follows: "*The iterative, non-linear nature of design thinking means you [...] can carry these stages out simultaneously, repeat them and even circle back to previous stages at any point in the design thinking process."*(5). In this way the Designer is open to learning new things along the way, that will inform and alter the outcome of the project. This will be the methodological approach to the case study carried out.

3.2 The Double Diamond, a Design Thinking Framework

The Double Diamond is a process model, which was invented by the British organization, Design Council, in 2005 (6). According to The Interaction Design Foundation *"there is no single definition or process for design thinking"* (4), and the Double Diamond is therefore one representation of a design thinking framework.

The Design Council describe the Double Diamond as "*a visual representation of the design and innovation process. It's a simple way to describe the steps taken in any design and innovation project […]*". (7) In this way it is described as a simple way to describe complex processes.

The Double Diamond divides the design process into four phases: Discover, Define, Develop, Deliver, illustrated like two diamonds, as depicted on figure 1. The diamond shape represents the 'divergent' mindset needed in the Discover and Develop phases and 'convergent' mindset needed in the Define and Deliver phases. The first diamond is often referred to as the 'problem space' and the second diamond as the 'solution space'(8), as the aim of the first diamond is to end up with a clear problem definition, and the aim of the second is to develop a potential solution.

This project is carried out with design thinking as a methodological approach and The Double Diamond as a framework for the process. This means that the case study carried out will be described according to the Double Diamond phases.

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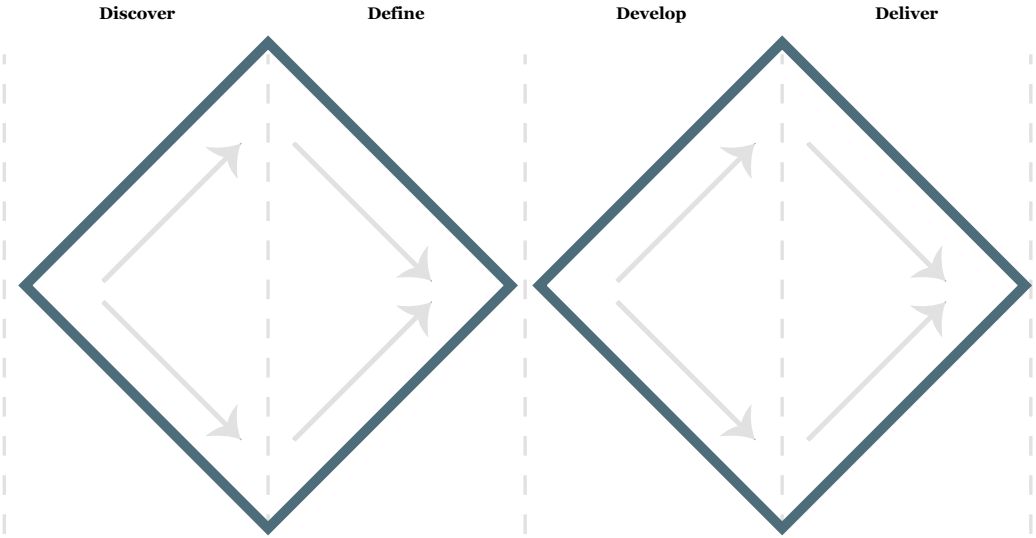


Figure 1 The Double Diamond Framework

3.3 Time Frame

The time frame for the project is as shown in in figure 2. As the figure shows, the phases Discover and Define vastly overlap, as well as the Develop and Deliver phases. This is due to the iterative and non-linear way of working in the Double Diamond framework. The overlapping phases will also be evident in the walkthrough of the case study.

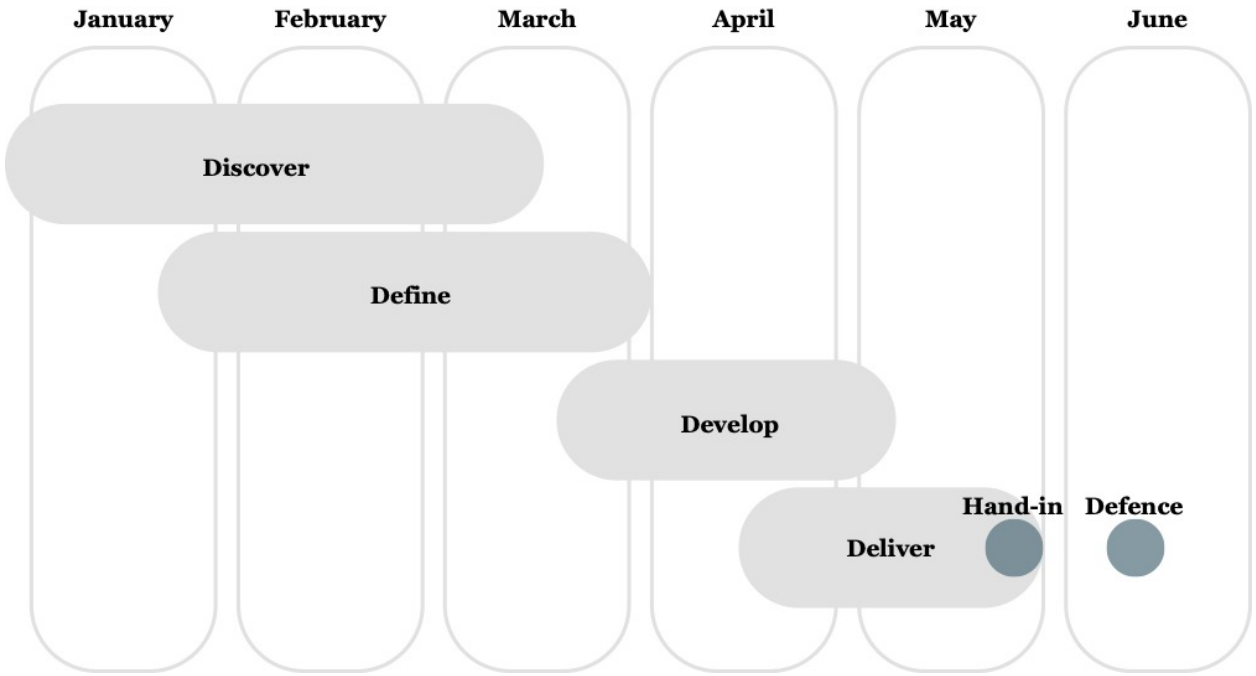


Figure 2 Time frame for the thesis

4 Literature Review

The following chapter dives into relevant literature about design thinking, the design thinking mindset, Service Design, and related works about design thinking in the public sector. Furthermore, a critical view on design thinking will be presented.

The literature creates a foundation for the case study presented in chapter 6. The points from the literature review and results from the case study will be discussed in chapter 8.

4.1 Design Thinking

As well as using design thinking as a *methodological approach* for the case study carried out, design thinking itself is a core element of the thesis – seen in relation to the public sector.

As mentioned, the design thinking methodology consists of five phases: empathize, define, ideate, prototype, and test (5). These phases can be considered the core principles for the design thinking *process*. The previous CEO of the global design agency IDEO(9), Tim Brown, argues that the principles of design thinking are applicable to a wide range of organizations (10). He explains that through history designers have been able to create enjoyable products (and services), and describes *"Design thinking takes the next step, which is to put these tools into the hands of people who may have never thought of themselves as designers and apply them to a vastly greater range of problems."*(10). He argues that design thinking can be usable in many different contexts and to many different people.

4.2 Design Thinking *as a Mindset*

Apart from being a methodological approach, design thinking can also be seen as a mindset. Luchs et al. describe it as: *"Beyond process, design thinking is also about mindset, where mindset can be thought of as an integrated set of beliefs and attitudes"* (11). In this way it is argued that design thinking is an attitude to approach projects with.

Brown describes the intuitiveness of design thinking, by saying that *"[...] design thinking taps into capacities we all have but that are overlooked by more conventional problem-solving practices"*(10). By this he argues that everyone possesses the design thinking capabilities, but some of these capabilities are not always thought of in problem-solving strategies. He continues by arguing that design thinking offers a "third way" of solving problems, which is neither based on only feelings and intuition nor only on rationality and data (10).

Brown argues that design thinking combines the 'feeling based' with the rational: *"Nobody wants to run a business based on feeling, intuition, and inspiration, but an overreliance on the rational and the analytical can be just as dangerous. The integrated approach at the core of the design process suggests a "third way"* (10). In this way design thinking can be described as a way of considering multiple aspects of a challenge when finding the core issue and creating solutions.

Furthermore, Brown mentions the way of 'thinking like a designer' as using insights (generated from different types of activities) as a source of inspiration for solutions (10).

Brown's idea of thinking like a designer leads to looking at the 'design thinking mindset'. Luchs et al. describe a list of common principles of the design thinking mindset and philosophy (11):

- **People-centric:** A shift from a product and technology-centric orientation to a primary focus on people's values, experiences, and needs.
- **Cross-disciplinary and collaborative**: Using teams with a wide variety of backgrounds and training, and with team members open to a diverse team's different perspectives and abilities.
- **Holistic and integrative**: Although details are important, design thinkers are also able to see and consider relationships, interactions, and the connections between seemingly disparate ideas.
- **Flexibility and comfort with ambiguity:** Design thinking is best suited to address ambiguously defined problems and opportunities and requires great flexibility concerning both content and approach.
- **Multimodal communication skills:** A willingness to communicate and work in various modalities, including verbal, visual, and tactile. Design thinkers sketch and create prototypes, without being constrained by a perceived lack of ability or skill.
- **Growth mindset:** A willingness to test ideas, concepts, and prototypes in an effort to learn, unhindered by a fear of failure.

These are six aspects of the design thinking mindset, according to Luchs et al. (11), and many other authors and organizations have listed similar core principles describing the design thinking mindset. Accordingly, the Interaction Design Foundation also describes how design thinking is more than a process, and dive into the 'design thinking mindsets'. They describe nine key mindsets needed for a team to successfully implement design thinking as follows:

1: Be empathetic, 2: Be collaborative, 3: Be optimistic, 4: Embrace ambiguity, 5: Reframe Challenges and Assumptions, 6: Embrace diversity: 7: Be Curious, 8: Make Tangible, 9: Take Action.

In this way The Interaction Design Foundation describes the needed attitude and orientation when working with design activities. The two descriptions of the design thinking mindset have

some variations; however, one can argue that the fundamental building blocks are the same: empathy, collaboration, open-mindedness, visuality and curiosity.

As it will be explained in chapter 6, both the *process aspect* as well as the *mindset aspect* of design thinking will be examined in relation to the public sector organization: Copenhagen Municipality.

4.2.1 Updated Double Diamond: A Framework for Innovation

As explained in chapter 3, The Double Diamond is a framework for working with design thinking. However, in 2019 an updated version of the framework was presented (12).

In late 2019 the original inventors of the Double Diamond framework, The Design Council released an updated version of the Double Diamond, which was then referred to as "A Framework for Innovation"(13) as depicted in figure 3. The framework aims at *"Helping designers and non-designers across the globe tackle some of the most complex social, economic and environmental problems."*(13) This

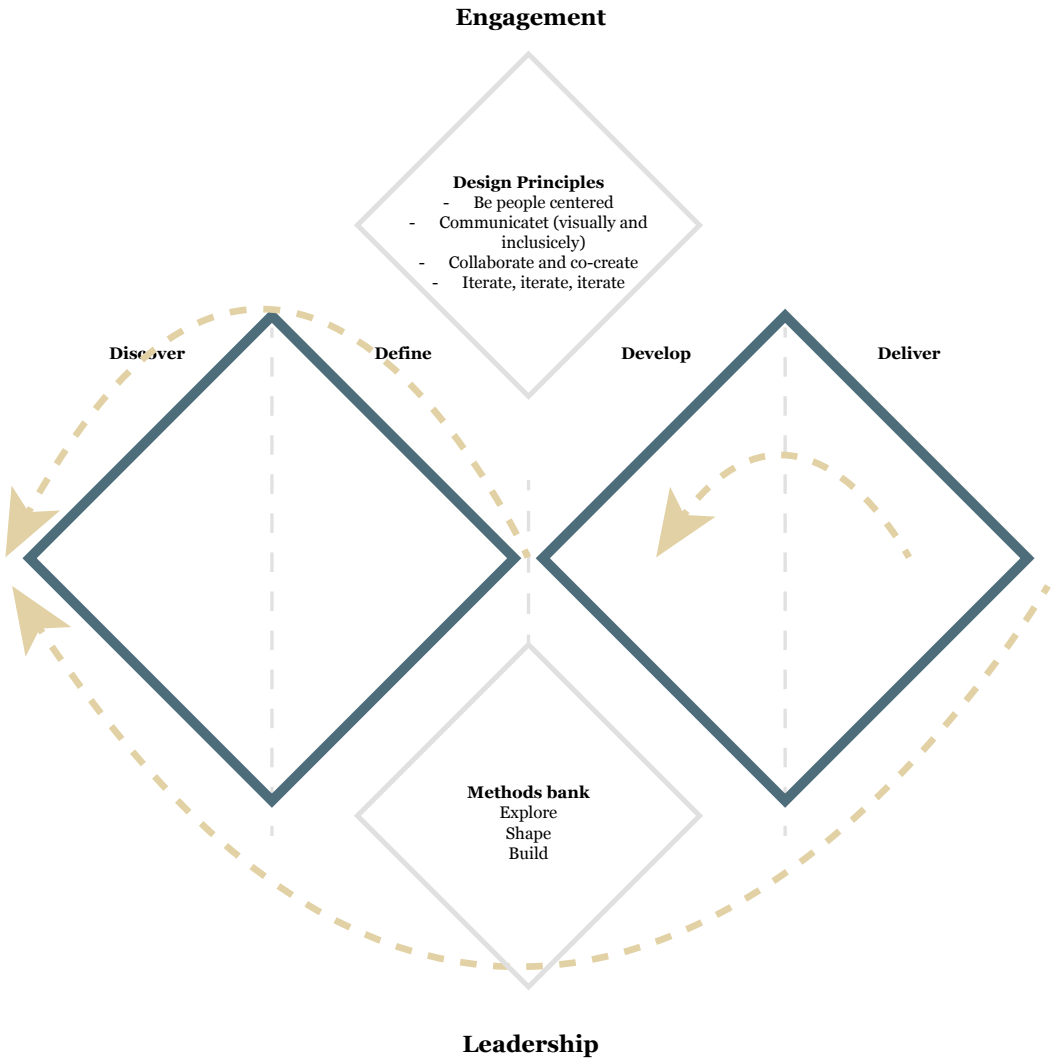


Figure 3 New Double Diamond: Framework for Innovation

description by The Design Council suggests that the framework is usable for designers as well as non-designers.

The update of the model puts emphasis on 'innovation' which suggests that design is a needed when working with innovation in general (12).

The model still consisted of the two famous diamonds and the four phases of diverging and converging but had a range of new elements added which could be seen as a comment that a design process alone will not save you. You need design principles, methods, engagement, and leadership(12). Among other new elements, Design Council had added a set of 'design principles' at the top of the model, which they describe as "*four core principles for problem-solvers to adopt so that they can work as effectively as possible*"(13)

The principles are listed as follows: (13)

- **Be people-centered.** Start with an understanding of the people using a service, their needs, strengths, and aspirations.
- **Communicate visually and inclusively**. Help people gain a shared understanding of the problem and ideas.
- **Collaborate and co-create**. Work together and get inspired by what others are doing.
- **Iterate, iterate, iterate**. Do this to spot errors early, avoid risk and build confidence in your ideas.

According to The Design Council, these principles are useful when solving problems. The nature of these principles is closely related to the descriptions of the design thinking mindset, as already described. Furthermore, the updated model puts emphasis on iteration in the design process through the added arrows (see figure 3). The linear appearance was a big point of criticism in regards to the original Double Diamond – I will get back to this in chapter 4.5.

In connection with the framework, The Design Council stress the importance of 'creating a culture of success', by which they mean that today's complex challenges require two important aspects: *leadership* and *engagement* as seen on figure 3.

They describe that **leadership** *"is needed to encourage innovation, build skills and capability, provide permission for experimentation and learning"* (13). **Engagement** is described as "*Developing connections and building relationships is as important as creating ideas."*(13) The focus areas in the Framework for Innovation highlight the importance of working in collaboration with

others and staying curious needed to solve the increasingly complex challenges of today. Leadership and engagement will be important elements of the case study in chapter 6 as well as the discussion in chapter 8.

4.3 Service Design

The following sections describe the field of Service Design, and specifically dives into the topic of facilitation, as this will be a substantial part of the case study in chapter 6.

Service Design can be complex to describe as it consists of many different aspects. However, Stickdorn et al. state the following: *"Service design is an interdisciplinary approach that combines different methods and tools from various disciplines. It is a new way of thinking as opposed to a new stand-alone academic discipline"* (14). Stickdorn et al. argue that service design helps innovate or improve services to make them useful and intuitive for the users. (14)

Stickdorn et al. quote Senior Director of Service Design & Facilitation, Stanford University, Morgan Miller(15), who writes "*Many service design tools are mind hacks that help us reframe problems in a way that humans can handle better"*(16). By this it is argued that the role of a Service Designer is to apply tools that 'create mind hacks' and reframe complex challenges. This can be seen in close relation to design thinking which, as mentioned, is used for tackling ill-defined problems.

In the book "This is Service Design Doing" Stickdorn et al. touch upon the cross-disciplinary aspect of service design *"[...] service design can be seen as a common language or even "the glue between all disciplines" offering a shared, approachable, and neutral set of terms and activities for cross-disciplinary cooperation"*(17). In this way it is argued that an important aspect of the service design toolbox is the facilitation of others and their interests and ideas.

In describing what Service Design is Stickdorn et al. have formulated 'The 12 Commandments of Service Design Doing' (17). The last of the twelve Commandments states *"it's all services"* by which they mean that service design can be applied to anything(17) *"[...] services, digital and physical products, internal processes, government offerings, employee or stakeholder experience [...]"* (17). Essentially, they argue that service design is not only for 'services for a customer' but can be applied in many different settings and challenges.

In line with the design thinking mindset, the 9th commandment described by Stickdorn et al. is that *"It's not about using tools; it's about changing reality"* by which they stress the importance of prototyping and testing – and not letting a project end with ideas on paper (17).

4.3.1 Facilitation as a Service Designer

In this chapter relevant aspects of being a facilitator are described. These will be central in the prototyping in chapter 6.3.4.

Facilitation is central in service design. Stickdorn et al. state that *"If service design is a truly co-creative activity, then facilitation must be the key tool of any practitioner"*(17). Being a Service Designer does not mean knowing everything about a specific topic but being able to facilitate the co-creation of people with different knowledge areas around said topic.

Stickdorn et al. describe that putting a group of people, who have different backgrounds, levels of comprehension and motivational factors, requires a facilitator (18). They describe: *"How can we get the most out of these people, and keep them moving forward together in a context where they all feel useful, engaged, and might even come again next time? How can we even help them get better at what they do? Figuring that out is the role of the facilitator."* (18)

Stickdorn et al. highlight different aspects of the role of the facilitator. One aspect is the planning of the facilitation which "*will be a matter of choosing activities and allocating resources along this timeline*"(18). Although planning is important, Stickdorn et al. argue that it is counterproductive to try to plan everything, whether for a project or a session, as they state "*…design is exploration*". (18) This means that the role of the facilitator is not to have a 'master plan' but to be able to read what is happening in the room, and guide participants accordingly.

Another important aspect of facilitation according to Stickdorn et al. is the creation of a 'safe space'. They describe *"Many service design tools and methods seem uncomfortable and strange to people in organizations…"* (18). This is supported by their point about 'starting in a safe space' by e.g. having a workshop in a meeting room that the participants are familiar with and present in formats they already know.

Invoking authority is also important (18), as it can be a way of getting a conservative organization to open to service design tools and methods. Stickdorn et al. give the example of having senior staff

address the group and talk about the initiatives behind the initiative. (18) In this way they argue that getting someone with authority inside the organization to promote the activities can have a positive effect on the perception of the activities.

4.3.2 Service Design in Organizations

Stickdorn et al. also touch upon introducing service design in an organization. They argue that it takes time: "*Just acquiring service design capabilities is not enough to sustainably introduce service design in an organization. That process usually includes a cultural and organizational transformation that cannot be implemented in a few months*"(17).

About the 'getting started' phase of implementing service design in an organization, they state that the following is central:

- Starting with small projects
- Secure management buy-in
- Raise awareness
- Build up competence
- Give room to try

Diving further into the second point about securing management buy-in, Stickdorn et al. argue that it gives 'political support': *"If needed, find someone from management to sponsor your initial ideas [...] Often just a brief introduction from a higher management will give a design team the credibility that you might need for your first projects"* (17). This will be important in the case study in chapter 6.

4.4 Design in the Public Sector: Related works

This section provides a closer look on related papers and articles about design and design thinking in the public sector.

4.4.1 Activating design thinking in the public sector

Many authors and researchers have explored the space for design thinking in the public sector. Brinkman et.al. simply describe that *"in general, public organizations do not provide the most receptive context for design thinking."*(19) They argue that design thinking requires willingness to take risk and openness to uncertainty, and that public organizations "*instead, favor rationality, stability, and accountability [...]"*(19). In other words: the design thinking

mindset does not match the mindset in the public sector. At the core of the differences, they argue that design thinking is *creativity driven* and the general logic in the public sector is *rationality driven* (19).

Like Brinkman, Starostka et al. mention the fundamentally different mindset in public organizations (in this context about policy making) compared to the design thinking mindset. *"On one hand, designerly methodologies are seen as having the potential to improve public policymaking. On the other hand, design's traditional focus on experiences and creativity neglects understanding of government systems and may be at odds with current organizational cultures and practices"* (20).

Nevertheless, there have been several projects carried out by others involving design in the public sector. Based on studies of 14 design thinking projects from the work of prominent design agencies in The Netherlands and Denmark Brinkmann et al. lay out a taxonomy of four overall strategic purposes to support the application of design thinking in the public sector: (19)

1. Building confidence in design thinking
    - Creating a safe setting, providing clarity, showing the potential, offering guidance, giving training
2. Forming a design thinking alliance
    - Building relations, creating a group identity, promoting engagement
3. Generating support for design thinking
    - Showing progress, looking for traction, producing attractive work, creating visibility, cultivating empathy, reducing liabilities
4. Enhancing compatibility between the design project and the external context
    - Seeking alignment, boundary spanning, bypassing existing structure, flying under the radar

Under each of these strategic purposes they outline several specific actions to take to unfold design thinking in the public sector. These actions set the lines for practitioners to activate and support design thinking in a public sector context. Some of the purposes are highly relevant in the case study for this thesis, which I will get back to in the prototyping chapter (chapter 6.3).

Finally, Brinkmann et al. conclude – more critically - that their research *"[…] enhances our understanding of the limited impact design thinking currently has in the public sector […]. Practitioners are mainly occupied with making the design thinking project a one-off success rather than instigating lasting change within public organizations"* (19). By this they state that practitioners (Designers) introduce design thinking in a way that is not sustainable in the long run – but might be a success as a one-time experience.

4.4.2 Design capability in the public sector

Malmberg on the other hand argues that *"Public sector organizations are in need of new approaches to development and innovation […]"* and that *"design is increasingly put forward as a potential answer to this need"*(21) and through a comprehensive literature review she examines the design capability in public sector organizations.

Like Brinkmann et al., Malmberg examines different aspects needed for design to fit into the public sector, and she introduces the term 'design capability'. According to Malmberg 'design capability' can be described as *"the knowledge and skills of a designer […] or design maturity, or the awareness of design in the organization"* (21). In other words, this can be seen as the level of maturity a public sector organization has in working with design.

Based on a large literature review Malmberg identifies 3 different aspects of design capability: (21)

1. **Design resources** = the design competency, skills, or activities brought by trained designers or in the use of a design methodology
2. **Awareness of design** = an organization's perception and understanding of design and designs potential contribution.
3. **Structures that enable the use of design** = an organization's ability to make use of design practice by creating the right setting for it

Thus, Malmberg claims that organizations aiming to foster design capability need to identify and leverage design resources, raise awareness about design, and create enabling structures for design practice. These three aspects can be seen as three levels of design maturity in the organization; firstly, bringing in a designer as a driving factor, secondly seeing the potential contribution of design and thirdly creating the right setting inside the public organization to use design practice.

Malmberg also introduces the concept 'absorptive capacity' as a term within the field of organizational learning. Absorptive capacity is described as a perspective with *"focus on how an organization recognizes and assesses new information as potentially valuable to the organization before assimilating the knowledge and developing capability to exploit it."*(21). This 'new knowledge' can be seen as e.g. design. Malmberg uses this perspective to investigate how design knowledge is absorbed and developed into 'design capability' in a public sector organization – although this is a rather unexplored field, according to Malmberg.

Malmberg illustrates a 'Model of Absorptive Capacity' consisting of three levels: (21)

1. Recognize value in new knowledge
2. Assimilate new knowledge
3. Exploit new knowledge

These levels can be seen as the ability to handle, incorporate and make use of new knowledge. Malmberg continues this thought and argues that the absorptive capacity can be influenced by various aspects in a organization (21):

- **Prior related knowledge:** it is easier to understand new knowledge if it is connected to something you already know
- **Organizational structure and combinative capabilities**: system-, coordination- and socialization capabilities (e.g. processes, routines and culture in an organization) affect the employees individual capabilities
- **Management's influence on knowledge absorption:** the activities of the management influence the perception of the applicability and perception of the new knowledge

In this way Malmberg states that a number of factors can affect the absorptive capacity in a public sector organization, which will ultimately affect how new knowledge about design approaches can be developed into design capacity. This will be discussed in relation to the case study in chapter 8.

4.4.2.1 The Role of the Designer – in the public sector

As Malmberg argues, design is highlighted as a way of tackling and understanding the challenges in the public sector (21). But what does it mean for the role of the designer, if design is more widely used?

Manzini argues that the role of 'design experts' is to cultivate design activities, and to guide non-designers to become more design-oriented: *"[...] although design capability is a widespread human capacity, to be usable it must be cultivated. [...] Confronted with*

this contradiction between a reality that calls for all subjects to be more design-oriented and their difficulty in being so to an adequate extent, design experts can come into play."(22) Manzini refers to educated Designers as 'expert designers'. Although he emphasizes how you cannot design people's behavior, he highlights that *"...it is possible to create conditions that make some ways for being and doing things more probable than others"* (22). In this way he argues that the role of the designer is to 'create conditions' for the non-designers to make certain actions more likely.

In addition to this, the British Professor of Design Studies, Nigel Cross (23), uses the term 'designerly ways of knowing' (24) to describe the role of the designer. He lists five aspects of designerly ways of knowing: (24)

- *Designers tackle 'ill-defined' problems.*
- *Their mode of problem-solving is 'solution-focused'.*
- *Their mode of thinking is 'constructive'.*
- *They use 'codes' that translate abstract requirements into concrete objects.*
- *They use these codes to both 'read' and 'write' in 'object languages'."*

Like Malmberg, Cross mentions the increasingly complex challenges of today – the ill-defined problems – and argues that "In order to cope with ill-defined problems, designers need to have the self-confidence to define, redefine and change the problem-as-given in the light of the solution that emerges from their minds and hand"(24). In this way he explains that the ill-defined problems of today's world must be redefined to be solvable, and it is a task for the designer. He argues that it takes work to define problems clearly and see potential solutions: *"Designing is a process of pattern synthesis, rather than pattern recognition. The solution is not simply lying there among the data, like the dog among the spots in the well-known perceptual puzzle; it has to be actively constructed by the designer's own efforts."* (24)

Cross describes this way of creating synthesis of data as a language: *"The designer learns to think in this sketch-like form, in which the abstract patterns of user requirements are turned into the concrete patterns of an actual object. [...] it is like learning an artificial 'language', a kind of code which transforms 'thoughts' into 'words'"*. (24). As previously argued the role of the designer is to guide non-designers to be more design-oriented in tackling increasingly complex challenges by e.g. making synthesis of complex

components (data, thoughts etc.) and seeing patterns that are solvable.

The American Social Scientist, Herbert Simon(25), argued that "*Everyone designs who devises courses of action aimed at changing existing situations into preferred ones"*(26). In his book 'The Science of the Artificial' he discusses the role of the Designer, and emphasizes the iterative ways of working, in the example of 'decomposing interrelated tasks': "*One way of considering the decomposition [...] is to think of the design process as involving, first, the generation of alternatives and then, the testing of these alternatives against a whole array of requirements and constraints. There need not be merely a single generate test cycle, but there can be a whole nested series of such cycles."* (26). In this way he describes the role of the Designer as working iteratively and learning from the iterations.

Simon thoroughly describes the design process, acknowledging that it involves a combination of creativity, problem-solving, and iteration to arrive at a 'satisfactory'. By that he means that Designers work towards creating solutions that are 'good enough' while constraints are taken into account during the design process. He states *"When we recall that the process will generally be concerned with finding a satisfactory design, rather than an optimum design, we see that sequence and the division of labor between generators and tests can affect not only the efficiency with which resources for designing are used but also the nature of the final design as well* (26).

Going back to the question posted in the beginning of this chapter, about what it means for the role of the Designer if design is used more widely, there are different answers. Overall, the research presented points towards the Designer being a 'guide' for the non-designers and set up frames for certain activities to happen. It Is also about translating abstract requirements into concrete objects and designing the *process* itself.

4.5 Critical view on the Design Thinking

Over the past few years more critical voices have talked about design thinking and whether it is still relevant in solving problems (27).

Author Nick Skillicorn raises criticism towards design thinking. He sees a downfall of design thinking in close relation to the revenue of the design thinking pioneer company, IDEO, decreasing drastically. He points out that design thinking has been at the center of

innovation in the 1990's and 2000's, which was closely related to the pioneer work at IDEO. However, Skillicorn raises criticism and argues that design thinking *"[...] was often primarily focused on developing an idea into a prototype which might have desirability in the market."* (27) In this way it is argued that design thinking led to 'small successes' and not impacting the larger picture in a company or business. Skillicorn lists three concrete points of criticism, where design thinking is failing: (27)

- Assessing the feasibility and viability of those innovations (vital for the innovation to bring value)
- Helping to manage the innovations once the initial idea or prototype is developed, and execute the innovation project
- Dealing with all of the hurdles and blockers which prevent innovation from succeeding at the company in the first place

In this way Skillicorn argues that the design thinking projects are easily disconnected from the core business of a company.

Author Debbie Levitt argues that design thinking 'sells a fantasy' (28). She says that *"It sells you the fantasy that with some guidelines, templates, and sticky notes, you can do what IDEO does just like how they do it. [...] That's a big promise, especially when I consider that design thinking tries to take something that takes weeks or months to do well and says you can do it in 5 days."* In this way Levitt criticizes the way that non-design organizations will claim to work with design thinking after a short workshop, which reduces the actual value of design thinking.

Levitt's criticism can be supported by Ketterman, who explains that *"Critics of design thinking believe that it has become yet another corporate box to check off. Once it becomes a: "Did you remember to check off that box?" mentality, it is no longer thought-provoking, nor does it stoke the fires of creativity."* (29). Ketterman argues that businesses want to find new ways to innovate, but just because they 'tick the box' does not mean that they are actively working with a design thinking mindset. He continues by explaining the broad spectrum of aspects of design thinking: "*it takes a thoughtful, complex, iterative, and messy process to arrive at a solution. We can't learn this from a two-day workshop or a TED talk. Learning about empathy doesn't mean we are empathetic all of a sudden"* (29). In this way it is argued that working with design thinking requires time and practice – and fundamental new ways of thinking compared to organizational linear models. Learning about something does not mean that you can practice it tomorrow.

A very central voice is IDEO's Tim Brown, who states: *"Now that design thinking is everywhere, it's tempting to simply declare it dead—to ordain something new in its place."* (30) However, he continues: "

"But in practice, design thinking is a set of tools that can grow old with us. And I'd argue that in order to create sustained competitive advantage, businesses must be not just practitioners, but masters of the art."(30) With these lines Brown emphasizes the potential for continual evolution and refinement of design thinking. Brown argues that organizations should build and secure 'deep design thinking skills' in order to still have a competitive advantage of using design thinking (30).

4.5.1 Critical view on the Double Diamond

Besides the critical views on design thinking, different authors have looked critically at the Double Diamond. The Design Leader, Dan Ramsden (31), acknowledges that the Double Diamond can be useful in some instances, and specifically that it is an easily understandable framework for explaining design to non-designers*: "[...] the Double Diamond is good at introducing this idea to non-designers—that design is more than just solutionizing, it's also about "problematizing" to reveal the biggest opportunities."* (32).

However, he criticizes the high level of abstraction in the framework: *"Google's definition of abstraction is "the quality of dealing with ideas rather than events." And that's the most perfect critique I can think of for why the Double Diamond falls short as soon as you get into process questions about design. It's too abstract to inform or standardize practice."*(31,32). By this Ramsden argues that the Double Diamond is too vague to guide the user. As an example, he argues that there is no description of when to move from one phase to the next. Additionally, he states that the implication of the linear relations between the stages is misleading, as *"the most successful design projects see a dialogue of back and forth, rather than a linear progression"* (32).

As a conclusion, there are points of criticism towards both Design thinking and the Double Diamond framework. The criticism will be discussed in chapter 8: Discussion.

5 Project Context

The literature review leads to the project carried out as a case study at the Citizen Service Development in Copenhagen Municipality. Before diving into the project itself, this section will provide a basic understanding of Copenhagen Municipality as an organization and Citizen Service Development as a department within the organization.

5.2 Copenhagen Municipality

Copenhagen Municipality is a large politically led organization consisting of seven administration areas (see figure 4) working their separate area of expertise to help and support the citizens of Copenhagen (33).

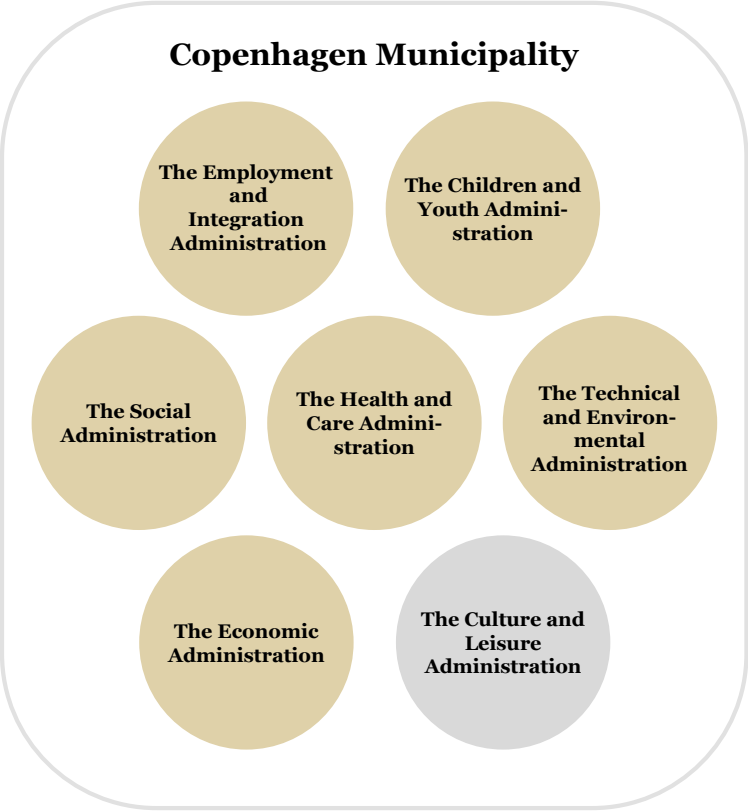


Figure 4 The Seven Administrations of Copenhagen Municipality

Given that the concept of this thesis was founded during my internship in Citizen Service Development, the following two chapters (5.2 and 5.3 have a strong relation to my internship report from the fall semester 2023 (34).

Zooming in on The Culture and Leisure Administration and it has around 1650 employees, and the core services of the administration are listed as: *"Libraries, Citizen Services, public education, population register, sports facilities and halls, cultural centers, museums, City Archives, grants for theater, music and art, events, regional and international cultural and sports cooperation as well as the Grants Board, Rent Board and Grants."* (35). This is a large spectrum of services which means that the areas are divided into three 'centers': 'Citizen Services and Authorities', 'Culture and Leisure Activities' and 'Finance, Digitalization and Organization' (36) (see figure 5 on the following page).

Citizen Services and Authorities consists of two areas: Authority and Internationalization, and Citizen Service (see figure 5). Finally, Citizen Service consists of three areas: 1. The phone lines, 2. The physical entrances, and 3. Citizen Service Development.

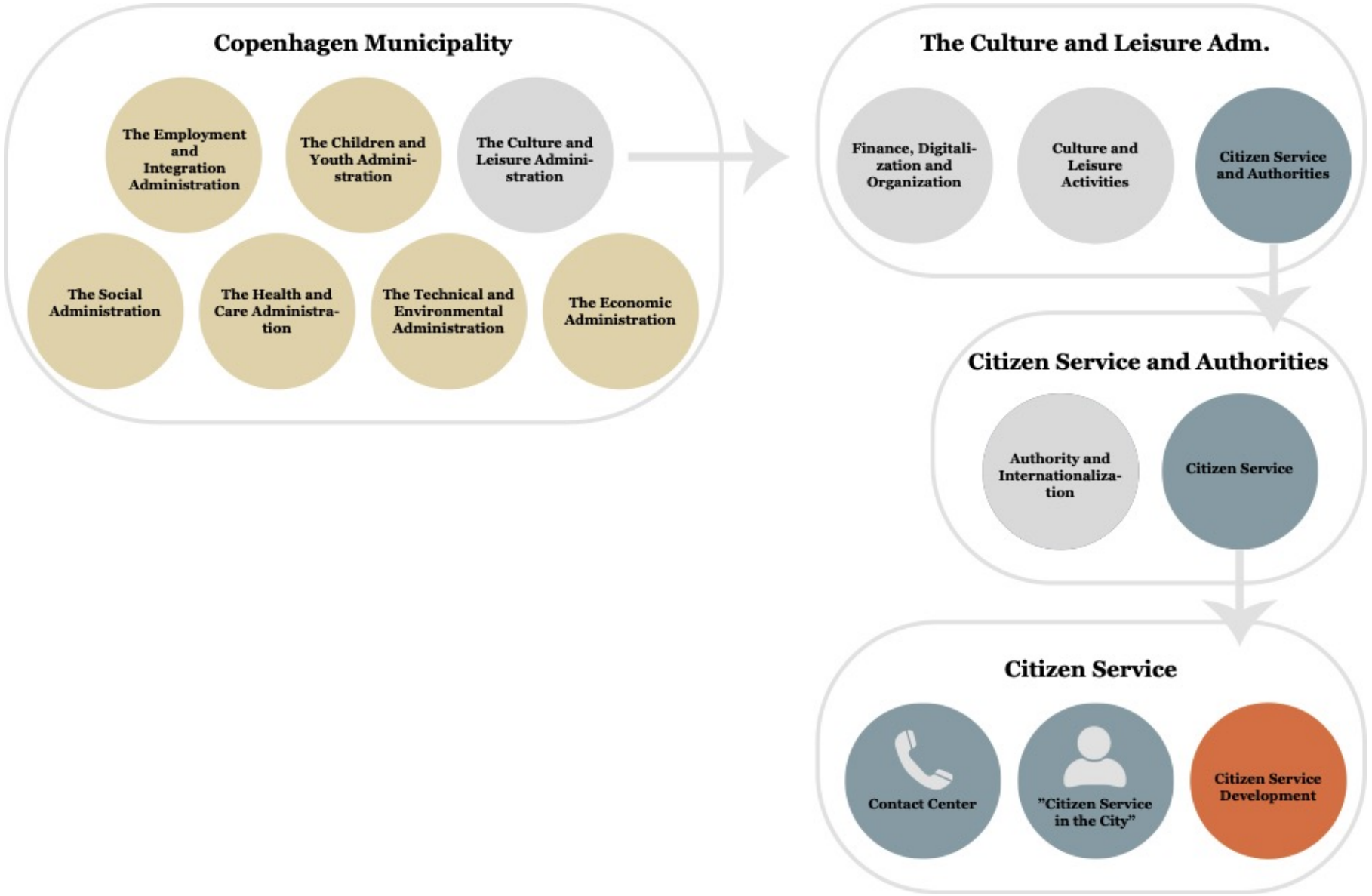


Figure 5 Overview of Administration, Culture and Lisure Adm. and departments

"Citizen Service" has two ways of helping the citizens of Copenhagen: the phone lines, and the seven physical locations across the city.. In the daily language, the term 'Citizen Service' covers both the phone lines and the physical locations. The people working there can be considered the 'front-line staff'. The services provided in Citizen Service are the listed as: passports, MitID and digital services, driving license, moving and address, finances and pension, and marriage (37) as seen on figure 6.

This thesis is created with Citizen Service Development as a partner organization, which also means that the case study took place in the Citizen Service Development office. Citizen Service Development is working towards improving and innovating the services offered across Citizen Service. This will be elaborated in the next chapter.

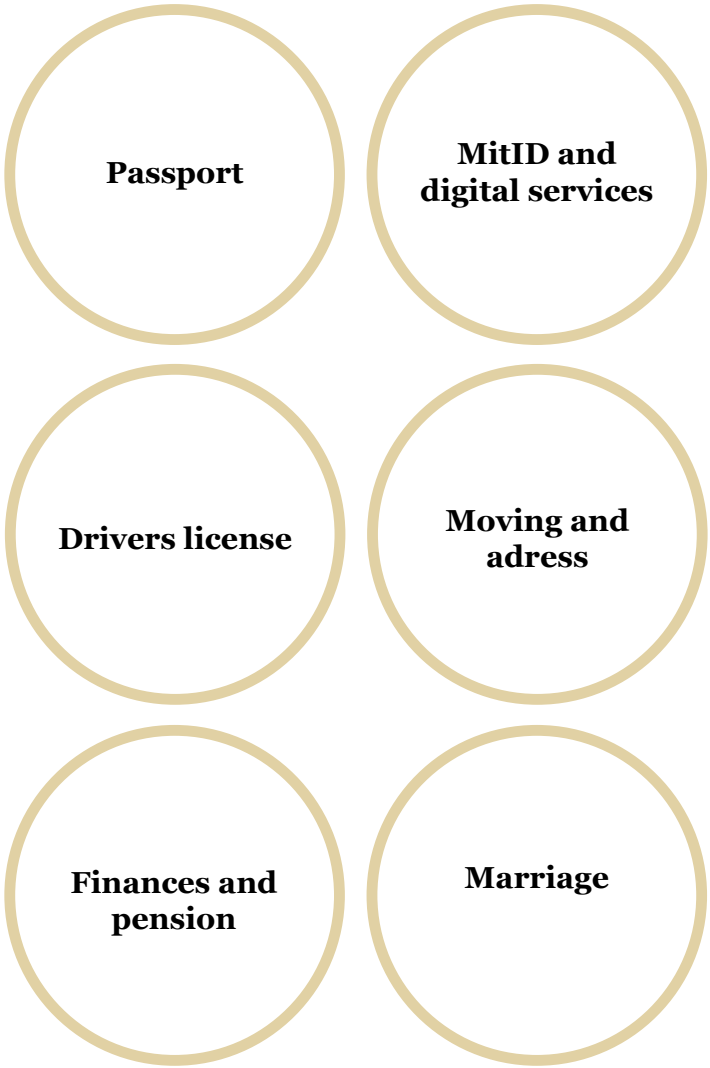


Figure 6 Services offered in Citizen Service

5.3 Citizen Service Development

In Citizen Service Development (from here referred to as CSD) there are currently 23 employees. This includes Project Managers, Data Analysts, Development Consultants, Digital Development Consultants, Communication employees, Web Editors, IT Employees, an Architect, and a Service Designer etc.

The employees in the department have very diverse tasks, although the overall goal is to improve the service level for the Copenhageners and make the job easier for the front-line staff.

Some tasks are focused on operations and improvements of existing services and workflows (booking system, physical layout, service improvements etc.) while others have a future perspective by aiming to streamline services across multiple administrations in Copenhagen Municipality. Based on interviews with the employees in CSD (see chapter 6.1.4) the tasks in CSD can be described in four categories: Operations, Development, Management Secretariat tasks and Consultant style tasks for other departments in Copenhagen Municipality (see figure 7).

Figure 7 Categories of tasks in Citizen Service Development

One example of a project currently happening in the department is development based and aims to find better ways of helping

‘challenging citizens’ who are under pressure for different reasons such as e.g. illness, or loss of income, and therefore react strongly and possibly aggressively with talking to the front-line staff in Citizen Service. Two employees are working on making educational material for the front-line staff to know how to handle these types of citizens. The goal of this project is to support the front-line staff when talking to challenging citizens, as well as help the challenged citizen get the best possible help.

Another example of a project that is being worked on is implementing a so called ‘voice bot’ to help the citizens make time reservations in Citizen Service through the phone. This is a more technical project with many stakeholders involved including e.g. an external booking system provider and the technical provider of the voice bot. The goal of this project is – like the other project – to help the front-line staff on the phones save time, but also to help the citizens to be self-sufficient when booking a time in Citizen Service.

The two examples presented highlight the ‘two-part’ support focus of the projects in CSD: support the front-line staff *and* support the Copenhagen citizens (see figure 8). The overarching goals of most projects carried out in CSD are streamlining and improving the services provided.

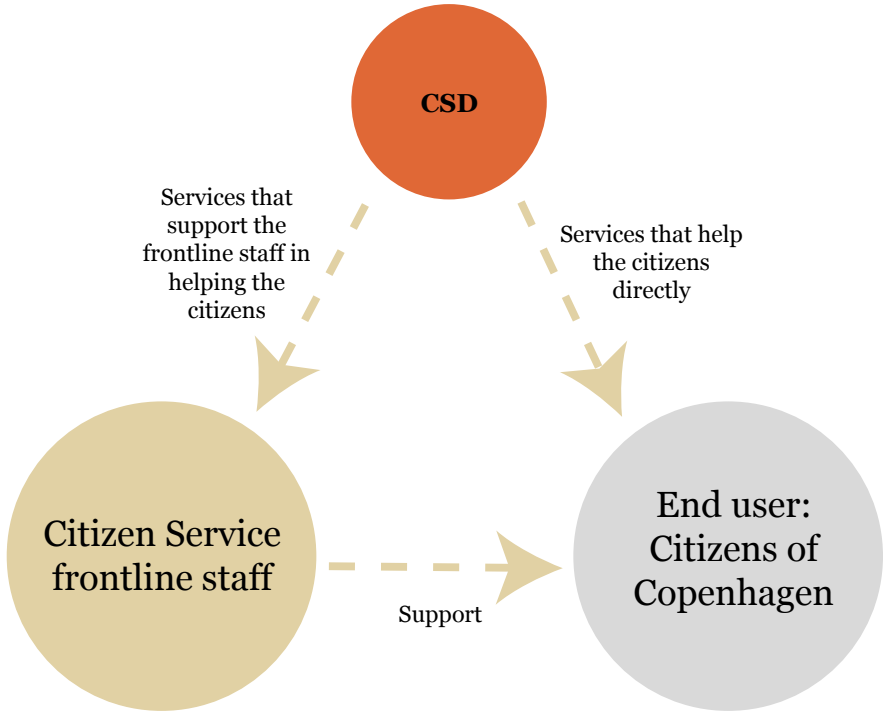


Figure 8 Aim of the work in CSD

5.3.1 The brief

As previously mentioned, this thesis is made in collaboration with CSD and with the Department Manager, Karen Westman Hertz, as a main stakeholder. This means that the brief for the project was created in collaboration. The brief for the project was:

“Make design tools usable for non-designers in their work in the Citizen Service Development department in Copenhagen Municipality”. Further on this was translated into a ‘How Might We’ (see chapter 6.2.1), which was used for developing possible solutions.

6 Case Study: Design Thinking in Citizen Service Development

In this chapter the reader will be taken through the design process of a case study based on the brief: 'Make design tools usable for non-designers in their work in the Citizen Service Development department in Copenhagen Municipality'.

The structure of the process follows the stages of the Double Diamond, and in line with the iterative approach of the framework (7) the phases will be presented in clusters as 'Discover and Define' and 'Develop and Deliver'. This is since the process of the case study was not linear, but rather went back and forth iteratively as new discoveries were made and affected the following steps.

Although I describe the tasks carried out by *me*, the insights, ideas, and understandings have continuously been shared with a group of other Service Systems Design students, colleagues in CSD, the Department Manager as well as my CSD mentor and AAU supervisor of the project.

6.1 Discover and Define

This section will provide an overview of activities carried out in the 'Discover' and 'Define' phases combined. The paragraphs follow a chronological order, however as the Double Diamond framework is iterative, so was the process. This means that knowledge from different activities will be presented when informing the progress of the project.

As The Design Council describe, the first diamond in the Double Diamond "*helps people understand, rather than simply assume, what the problem is*" (7). The first part of the first diamond, the 'Discover' phase, is about talking to people and understanding the challenge, and the following 'Define' phase is about defining the challenge based on the gathered insights (7).

6.1.1 Internship in CSD in the fall semester 2023

The work for this thesis can be said to have started even before the project did. I spent the third semester of my Service Systems Design studies in an internship in CSD. This can be considered the very first step of the discover phase, as it provided general understandings of projects, the processes, and challenges in both CS and CSD. Coming into a public organization workplace like CSD as a design student – with a design thinking mindset – gave a new perspective of being a Designer in 'the real world' rather than inside the university. The mindset seemed generally more 'closed' and focused on delivering a product or project, rather than having an exploratory approach to finding new possible solutions to a challenge. This difference sparked my personal interest and was the initiator for doing my thesis in CSD. The internship can be considered 'participant observation' which Stickdorn et al. describe as the researcher immersing themselves in the lives of the research participants (17). They describe that an output of this can be field notes, which I wrote many of in my time as an intern – they served to create the founding ideas of the thesis.

Additionally, I worked part time as a Student Assistant in CSD while carrying out the thesis project. This provided easy access to both the employees, the Department Manager, and their internal forums, which proved to be a great advantage as it offered plenty of opportunities to do research and test prototypes. More on that in the following chapters.

6.1.2 The IT Project Model

To understand the overall framework for projects carried out in Copenhagen Municipality it is relevant to look at the so called 'IT Project Model'(38). This is a project framework developed by Copenhagen Municipality as an organization (38).

The aim of the model is to give a framework of steps during a project as well as identifying the required deliverables. The name of the model indicates use in IT (Information Technology) projects; however, the model is used across projects in the municipality. The framework is accompanied by suggested activities, and various documents to be filled in. The model distinguishes between project sizes, which determines the number of documents that need to be filled in during the project.

With design thinking as a theme for the thesis it is central to look at the project phases of the IT Project Model. The model consists of 4 main phases that a project should go though: 'needs assessment', 'analysis and planning', 'implementation' and 'completion'. Before the first phase there is an indication of 'maturing' and after 'completion' there is an indication of 'operation and realization', however these two smaller phases do not have further descriptions or tasks attached. (see figure 9).

Some of the central goals for each phase are described as follows: (38). (Please note that there are more thorough descriptions to each phase, but these describe the main concept in response to each phase).

Needs assessment: "*Getting the business need crystal clear. It must be clear what the need is and what value the project will create.*"

Figure 9 The IT Project Model

Analysis and planning: "*A plan for a real solution that creates value. That is, it meets the business need, highlights the complexity and scope of change.*"

Implementation: "*Develop deliverables on time, on budget and on quality. And **i**nvolving operations and support on an ongoing basis to ensure the best foundation for the future use and operation of the solution.*"

Completion: "*That the developed solutions are established, and any deficiencies are handed over to the business for completion.*"

These four steps of a project and its described goals give an overall picture of how projects are carried out in Copenhagen Municipality. It is clear that the value of the project is to be clarified *from the beginning* and that 'experimentation' and 'iteration' are not part of the work.

It can be argued that the framework stands in contrast to e.g. The Double Diamond, as many decisions are taken from the beginning of the project – instead of working exploratively and iteratively with a design thinking mindset. More on this in the discussion in chapter 8.

6.1.3 Expert interviews: Service Design in Copenhagen Municipality

As a general introduction to working as a Designer with a design thinking mindset in Copenhagen Municipality, two Designers from different administrations in the municipality were interviewed: Nadja Rikke Andersen, Service Designer in The Social Administration (see figure 4), and Martin Dahlbeck, Specialist Consultant and User-Centered Designer in The Culture and Leisure Administration – but in the finance office (see figure 5). According to the different Administrations, the two Expert Designers work with different types of projects and different user groups. Yet, both approach a project with a design thinking mindset.

Two separate semi-structured interviews were carried out. According to Bjørner (39) a semi-structured is characterized by the possibility of reordering the prepared questions during the interview which offers flexibility in the interview (39). Bjørner also highlights that the semi-structured interview form allows the interviewer to include additional questions in response to the answers of the respondent (39). The interview guide for both interviews can be seen in appendix 1.

Both Expert Designers had worked in Copenhagen Municipality for many years, in various design and development positions. The interviews shed light on the general work of a Designer in the municipality, and what to focus on when working in a non-design organization.

The interviews both lasted one hour and touched upon many interesting points. However, in relation to the theme of this thesis, only the relevant points will be presented.

An aspect pointed out by both experts was the language used when working as a Designer in the municipality. They argued that using 'service design terms' can make models and activities sound more abstract and challenging than they are. Instead of using terms such as 'service blueprint' it can easily be referred to as 'an overview' or 'a map of the service' or 'before, during, after'. Both experts highlight the importance of using everyday language when working with non-designers in design activities. One of the experts follows up this thought by arguing that the Designer does not need to be 'very explicit that they are using design' by e.g. calling a process 'design driven' as this can make the activities less relatable and accessible. The argument was therefore 'not to stay in the service design bubble'.

This leads to another argument from both expert designers: simplicity is key. Make simple prototypes, explain things simply and make it as simple as possible for the end user to interact with the solution as this makes design generally more accessible. The design experts furthermore both highlight the use of 'storytelling': One gave the example that it can be difficult to get the economy department to understand a Design process, but it just requires a good explanation that outlines *their* tasks within the process. In other words, the tasks of the non-designers in relation to the design project or design task should be put into context – preferably a context they already understand.

Additionally, it was argued by both Expert Designers that when explaining design tasks and processes there is a need for the Designer to work visually – in all contexts. They argue that visualizing things will support the understanding of the topic in question.

When asked about the process of suggesting design activities to management, one expert explained that when arguing why design methods are important to spend time on, it can be beneficial as a Designer to "turn the story around" and argue what will happen if they *do not* do it. E.g. explain that 'if a collaborative workshop is not happening, then we will not get the important knowledge from

other stakeholders, and therefore we will not understand the core of the challenge'.

When asked about the IT project model both Expert Designers explained that they try to 'fill in' what the model asks, but 'tweak' it along the way and add design methods as well. One of the expert designers argues that 'the IT project model imposes requirements that are not relevant in design – you have to make decisions too quickly'. In this way both Designers work 'within the given frame' but add methods and activities that are otherwise missing when working with a design approach.

Finally, they commented on the general role as a Designer in Copenhagen Municipality. One Designer explains that 80% of the role as a Designer is as a 'mediator' between professionals, citizens, or employees and relational work that establishes the necessary conditions for service design to happen. The other Designer explained that being a politically run organization, it takes time to run projects in the municipality, and patience is therefore important if you want to use your design professionalism.

In connection with this, the other Designer argued that one of the most central aspects of the role as a Designer is to 'stop and assess' and challenge whether projects are addressing the right challenges, and whether the process is headed in the right direction. It is argued that it is the role of the Designer to ensure what the purpose of the project is – and whether it is the right purpose for a project.

Summing up the points from the expert interviews, it can be stated that the following things are import when implementing design in Copenhagen Municipality:

- Use everyday language
- Simplicity is key
- Storytelling to explain
- Using visuals
- Tweak the existing system
- Facilitation and relational work
- 'Stop and assess'

Talking to other Service Designers in the same organization, although from different departments, gave me a basic understanding of the possibilities and limitations of working creatively with design tools – and a design thinking mindset – in a municipality context.

Many of these points will be central in the prototyping chapter (chapter 6.3).

6.1.4 Interviews with seven Project Managers

As mentioned, the first thought behind this thesis was initiated by the observation during my internship, that project work in CSD seemed opposite to design thinking as it was not particularly explorative. The case study in CSD started therefore with a strong focus on *processes* in larger projects in CSD. This is the reason that seven *Project Managers* (from here referred to as PMs) were invited to do individual interviews, as they possess knowledge about projects and processes. This way of choosing participants can be defined as 'maximum-input sampling' according to Stickdorn et al. (17) This is characterized by involving participants who have a comprehensive overview of the system, which makes them able to give maximum input. This was true for the PMs who all have many years of experience in planning and managing a project in CSD.

Like the interviews with the expert Service Designers, the interviews with the PMs were conducted as semi-structured interviews (See interview guide in appendix 2). The interviews took place in the beginning of March 2024, and each interview lasted between 30 and 70 minutes. (See appendix 3 for transcription of interviews).

The interviews were built around 3 topics: the employee self, processes, and projects in CSD and finally, design thinking. The oral answers were supplemented by two drawing exercises: the first one about getting the PMs to draw *their process* for a project, and the second one to see their project in the light of the Double Diamond phases. The findings from the interviews and the two drawing exercises will be presented separately in the following pages.

6.1.4.1 Findings from interviews

The interviews provided many valuable points and insights, however in line with the scope of the project only some insights will be described in detail, as these were driving factors in the following steps for the case study.

The insights from the interviews were condensed on a 'research wall' (17) of post-its which were clustered in different categories (see figure 10 in the following page).

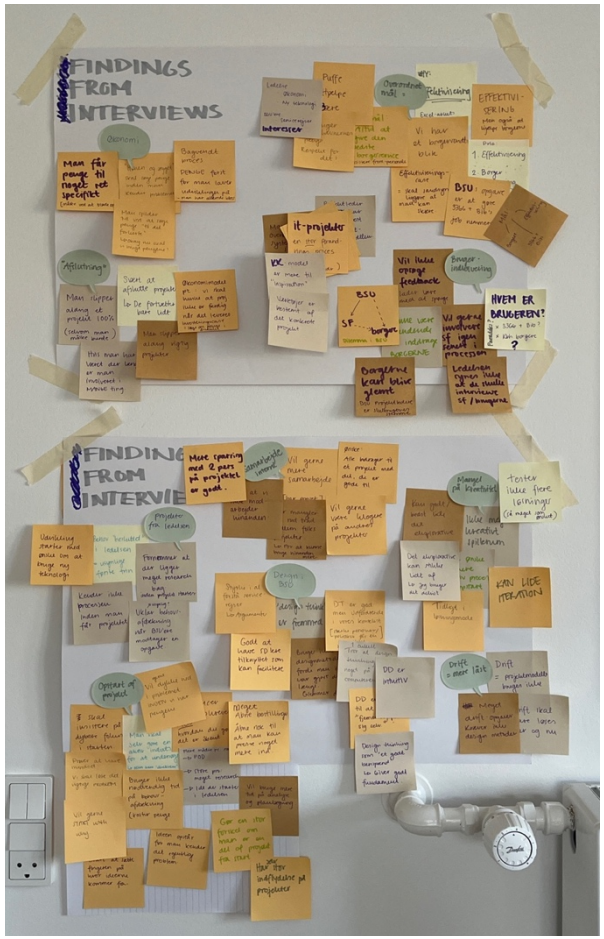


Figure 10 Research Wall with insights

Some clusters were about 'background knowledge'. These shed light on the fact that many projects originate from the management team, that the overall goal for CSD projects often is to rationalize or streamline services or systems, and that economy is an important factor as projects often need to apply for funding from the municipality funds. Other clusters revealed areas of opportunity or challenges, which I will now dive further into.

6.1.4.1.1 The use of Design Thinking and the Double Diamond

Part of the interview was regarding design thinking and the participants were asked to describe what it is – in their own words. The answers were varied a lot, and some were not able to describe it. One PM was asked if they knew about design thinking answered *"Not very much, no"*, and another PM described it as "*Isn't it something about prototypes and stuff like that? I think I might be a bit too old-fashioned to see how it can be used in the projects I'm doing."* This represented a rather unfamiliar view on design thinking.

Others had more experience with design thinking, and described it as "*For me, design thinking is about investigating the reasons before you start working on the solutions. And then there are all sorts of different methods within it."* And yet another PM described it as *"Design thinking is an approach to a design process. It's headings for some processes, where you then incorporate the tools that make sense to you there. But what characterizes it is that it must resonate with the user's needs. It must resonate with*

reality." These explanations are characterized by design thinking being true to the end users and understanding the problem before trying to solve it.

None of the PMs claimed to work only with design thinking. A few of the PMs who already knew about design thinking and the Double Diamond described it as 'intuitive', and something they followed without aiming to. One said *"[...] I think I have the mindset to do it because I'm not the kind of Project Manager who likes everything to be defined and then we just go. I like to work on it myself, so in that way it fits in well with design thinking which is curious. [...] I'm probably a type that fits in well with that"*.

When drawing their own process – before being introduced to the Double Diamond in the interview – a few of the PMs realized that they drew a Double Diamond. One said *"It's kind of funny to see that the diamond was there. I think that's a good point: [it appears] because it just makes sense"*. Considering that the PMs are all non-designers, and many worked in a "Double Diamond manner" intuitively, clearly showed that the framework is adaptable in many different contexts, as The Design Council argues (7).

The PM's different responses to design thinking and the Double Diamond can be mapped in four quadrants (see figure 11)

The x axis represents "Does not know about design thinking" to "Knows about design thinking', and the y axis shows "Does not work in a Double Diamond manner" and "Does work in a Double Diamond manner". Two did not know about design thinking nor

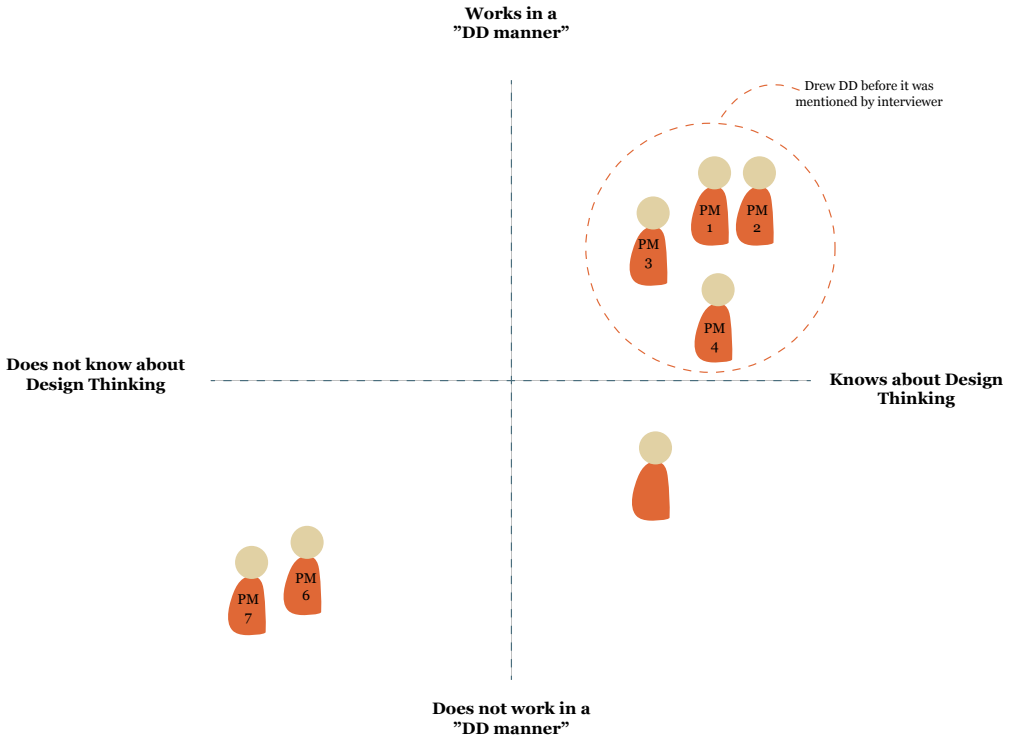


Figure 11 Overview of PMs use of the Double Diamond (DD)

worked in a Double Diamond manner. One knew about design thinking but did not work in a Double Diamond manner, and four knew about design thinking and drew their own process as a form of Double Diamond – before they were introduced to exercise 2 about the framework.

These different perceptions illustrate the different mindsets in CSD. Some seem to work in a more designerly manner, whereas others have a more foreign view on design generally.

A symptom of this can be seen as a PM, who worked in a 'Double Diamond manner' pointed out that *"ideally, the projects should 'start with why' instead of with an idea for the solution"*. This indicates that some employees would possibly prefer a different approach to the overall framework than the IT Project Model.

6.1.4.1.2 A Designer on the team

Some of the PMs also expressed the need for design capability in the department. One described the need for a design facilitator: *"I can't facilitate myself. Maybe I could, but not in a professional and proper way I think, so it's very nice to have service design attached who can"*. Another PM saw design and explorative thinking more as a good constraint to give yourself: "*It's also always a good constraint to 'have I've actually done this,' 'I've actually thought about this', because sometimes you just do what has worked 100 times before"*. This exemplifies a generally positive mindset towards design and the design thinking mindset, while highlighting that it disrupts the usual way of thinking in the municipality.

6.1.4.1.3 Lack of collaboration

The interview covered many aspects of project work and design thinking in CSD, and additionally, all interviews ended with the open questions 'Is there anything you think is missing in the project work in CSD?' and there appeared to be a theme in many of the answers to this question. One PM expressed the need for a 'red thread' in the department: "*We've talked about. We need more coherence in one way or another in the projects we're working on. In other words, that we have a red thread.*" This highlighted a need to see the department as a whole. Another colleague openly said that they did not know much about their colleagues' ways of working with projects *"Well, you know. I don't really know how the other PMs work. It's kind of weird not to know actually, so we could do that. So maybe we could be inspired by each other."*

In line with this, another PM answered the question as "*I would like to see a more creative process, i.e. around projects that start up and get involved and share knowledge more [...] use the capacity and resources we have in the group more. Partly because everyone would be better oriented, but you would also get some more angles. I think that would be good.*" At its core this wish is about knowledge sharing and creativity in a collaborative way. The thought of sharing is also expressed by another PM – although in a more festive way: "*You could perhaps have a New Year's Eve/end of year, where you briefly review the projects that have been completed in the past year and tell 3 good things and 3 bad things about the projects that were completed.*"

All these requests pointed towards collaboration, knowledge sharing and seeing the department as a unit working towards the same goals through different projects. This gave an initial thought, whether the PMs already use each other's knowledge in their work. One PM described the recent change to being 2 PMs on one project: a 1st and a 2nd, who have different levels of responsibility. However, looking at the PM's drawings of their process – and listening to the audio file – showed that none of them expressed that they ask their CSD colleagues or involve each other in their projects.

Instead, many described that they gathered inspiration and knowledge from various other places: other departments in the municipality, other municipalities, companies with similar services etc. Additionally they got input from the users as well as the management team. (See figure 12 below)

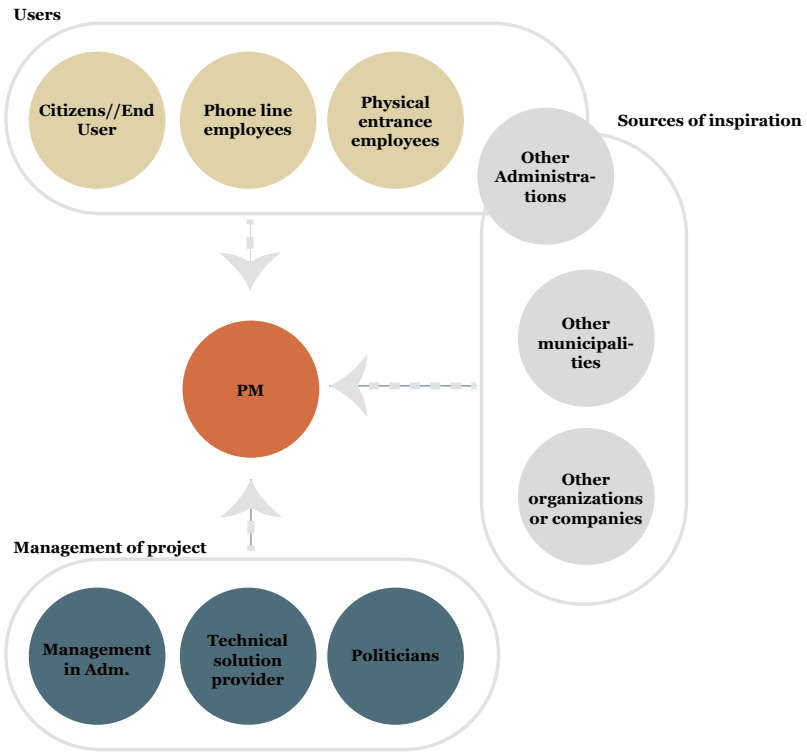


Figure 12 PM's sources of input for project

This figure can be seen in relation to the overall lack of internal collaboration and knowledge about the colleagues' work. I will get back to this.

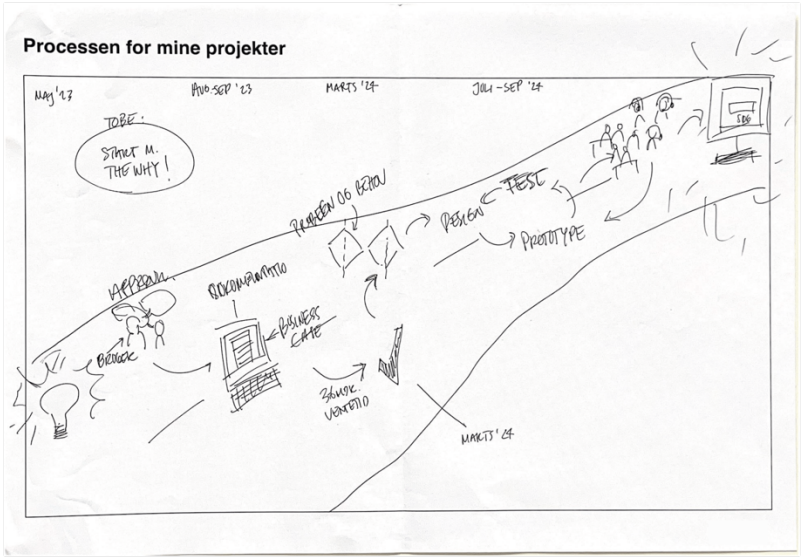
The interviews were arranged to provide a deeper insight into the *project work* and the process behind it in CSD. However, during the case study it became evident that the focus of the project would *not* be on the overall process for a project and experimenting with using the design thinking methodological framework in CSD projects. It quickly became evident that the overall framework for projects in CSD was the IT Project Model, which is a general rule in Copenhagen Municipality. Changing or remodeling this would therefore be out of the scope for the case study. Instead, the focus shifted towards collaboration.

6.1.4.2 Drawing exercise 1: “The process for my projects”

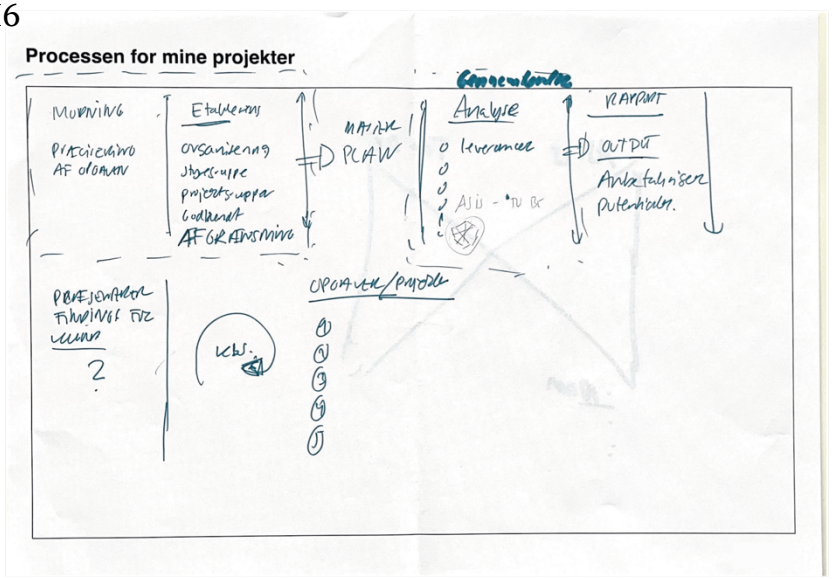
The drawing exercises were part of the interview for different reasons. Firstly, they enabled the PMs and me as an interviewer to ‘talk about the same thing’ during the interview, as an oral description of something intangible can look completely different to people. Stickdorn et al. describe that *“appropriate visuals speed up the process, allows for iterations and get people on the same page very quickly”*(17).

However it is important to remember that asking a non-designer to draw might seem very foreign to them. Stickdorn et al. argue that it is important to reassure them as as Designer: *“[…] don’t show them your exquisitely drafted flipcharts first. Use scrappy visuals and scribbled templates yourself, tell them that stick figures are welcome […]“* (17). Keeping this in mind, I humbly asked them if they were up for drawing and reassured them that there would be no right or wrong way of drawing or writing – and that it was just interesting to see how they envisioned their own process.

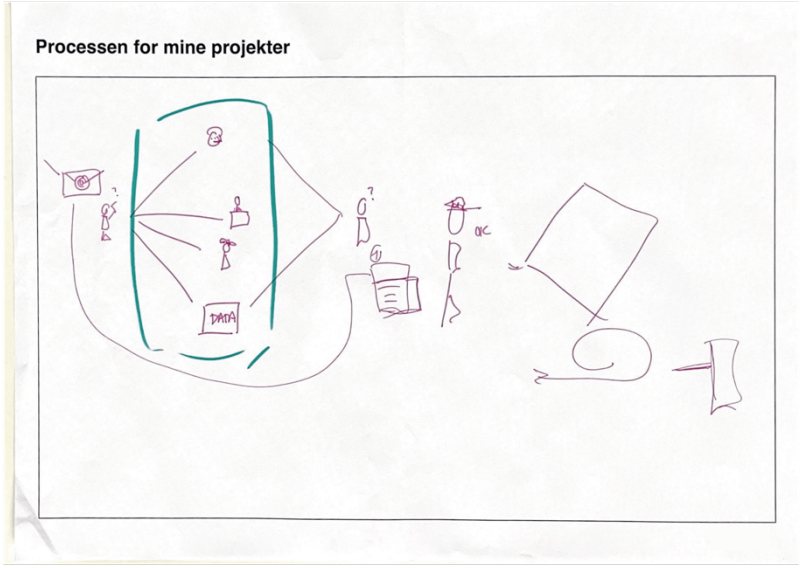
PM1



PM6



PM3



PM7

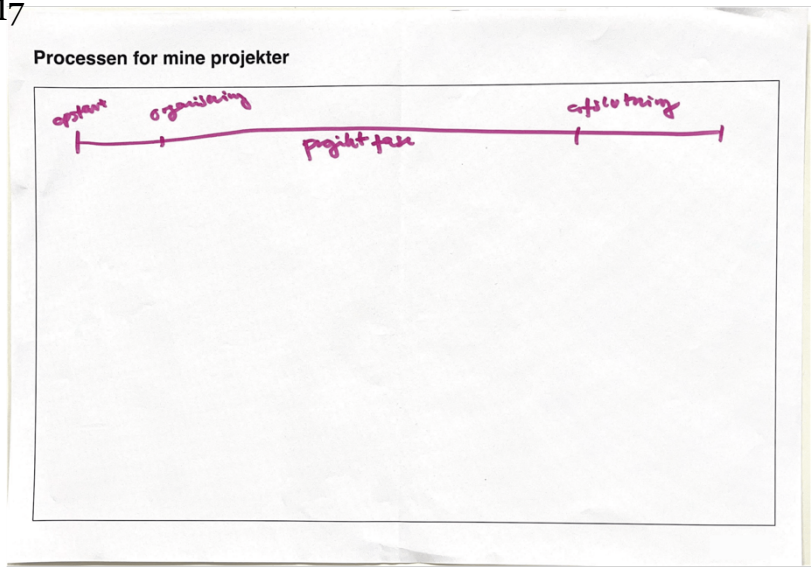
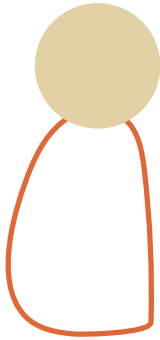


Figure 13 4 Process Drawings from 4 PMs

As seen on figure 13 there are many ways of perceiving and explaining one's own process. Drawing style, detail – and the fact that the PMs were not asked to prepare anything for the interview, and therefore needed to draw freely on the spot (see all drawings in appendix 4)

The different styles of drawings (writing, drawing) and level of complexity illustrates the different ways of thinking of a process. Some only use written words, whereas others only draw the process and others again have done a combination. This could potentially indicate different levels of creative confidence. Looking at the drawings in figure 13 it can be argued that PM1 and PM3 have drawn more freely and creatively, than PM6 and PM7 which are made in a more simple and linear way. The drawings can furthermore be seen in relation to the matrix in figure 10. A comparison of figure 13 (drawings) and figure 10 (matrix) two overall different attitudes towards design thinking. This can be condensed in two different personas, as depicted in figure 14.



DT Familiar

- Has some experience with Design Thinking and is curious to know more
- Key attributes: Curious, creative, learns along the way

Needs	Challenges
Would like more creative	Likes to explore and get bored if projects are too predictable

DT Unfamiliar

- Plans project from the beginning and follows the plan throughout
- Key attributes: Structure, planning, experience

Needs	Challenges
Structure and set expectations	Likes the familiar and can be ovewhelmed with new initiatives

Figure 14 Two simple personas for PMs different views on DT

The fact that the illustrations of the processes are so different from each other could indicate that it can be hard for two colleagues who are not involved in the same project to clearly communicate their project, when people see the process itself fundamentally different. It can be argued that they do not have the same frame to talk within. In the light of the need for more collaboration, it could therefore propose the need for a 'common language' when talking about a process and the current status of a project.

Additionally, in the light of the need for more collaboration, the drawings *themselves* turned out as type of *pretotype* for a tool that enhances collaboration and knowledge sharing. According to Stickdorn et al. a pretotype is a type of prototype that follow a fake-it-before-you-make-it approach and explores and validates the core of the value proposition(17). Therefore, it can be argued that the drawings served as very first take on 'explaining your project to a colleague', as the PMs were passing on knowledge (within a set frame) to the interviewer. In the prototype chapter, 6.3.5, a similar framework will be prototyped.

6.1.4.3 Drawing exercise 2: "Your project as the Double Diamond"

The following visual exercise was about the PMs seeing their process in the frame of the Double Diamond framework drawings. This drawing/writing exercise was carried out to get a 'common reference' when comparing the individual work of the employees. This can function as a 'boundary object'. Stickdorn et al. describe that a boundary object with the sentence *"Sometimes people with different skills can understand each other better if they have a common artefact to look at"*(17). In this case 'people with different skills' could be seen as me, as a Designer, and them as non-designers. Stickdorn et al. also describe how service design tools (in this case a visual representation of the Double Diamond) can be used as a boundary object, although it is important that *"they employ language and models that are easily understood across disciplines and functions"* (17). By this they emphasize that the service design tool used as a boundary object should be easily understood by everyone involved.

The PMs were intentionally asked to draw and talk freely, before being introduced the Double Diamond framework, to make sure that they did not 'try to make their project fit' into the model and neglecting how the actual process was.

It is important to notice that the PMs do not generally use the Double Diamond as a framework for their process – although some of them ended up drawing *their own process* like an unintentional Double Diamond (See figure 13).

Like the first drawing exercise, this model was met with different reactions. Some knew the framework already, and others found it intuitive to fill it in after a short introduction. However, one did not find it meaningful to fill in a model they do not use and said *"I simply can't do that. I don't think it really makes any sense compared to the more classic approach I'm referring to."* (referring to the first drawing). They did not fill in the framework, but instead raised awareness of how foreign the Double Diamond can seem to a non-designer. (See drawings in appendix 5)

Nevertheless, most of the PMs filled in the framework, which then provided an option for me to compare their processes. Comparing all the filled in frameworks showed a general tendency of doing a lot of work in the beginning of a new project (in 'discover') by e.g. uncovering user needs, talking to others and researching the topic in different ways.

Figure 15 shows a combined version of all the activities described Double Diamonds in the interviews. The fact that there tends to be more activities happening in the beginning of a project, illustrates that there is *lots of new knowledge* generated every time a new project starts.

Figure 15: knowledge gathering happening

Considering that the projects in CSD all aim to improve and streamline *the same* services (passports, MitID and digital services, driving license, moving and address, finances and pension, and marriage, see figure 6), it could be argued that some of the research in one project might be relevant in another – and some things could potentially be overlapping.

6.1.5 Interview with Department Manager

After conducting interviews with the CSD PMs, the Department Manager, Karen Westman Hertz (from here referred to as the DM) was interviewed. The initial focus for this interview was on the process of *starting* a project in CSD, as I had learned from the first interviews that the projects often start in the management team. see appendix 6 for interview guide).

However, as previously mentioned the focus of the project shifted towards collaboration and knowledge sharing after processing the interviews, and insights regarding this will therefore be highlighted in the following paragraphs.

The interview with the DM provided many valuable insights about the overall work in CSD. Like the PMs, she talked about the complexity in the CSD department working both with operational tasks and development projects. *"[...] there are complexities in being all of these things at once. We call ourselves a development department and people are development consultants, but there are a lot of people who have operational tasks"*. Here she states that the department is an atypical mix of development and operations, which requires a lot of different qualifications.

The DM was also asked to define 'design thinking' with her own words, to which she answered: "[...] *it's very much about starting from the users' experience of the problems in reality or understanding what the real problems are. And then trying to solve them in some kind of interaction with the end users".*

When asked about whether CSD works with design thinking, the DM explains "*Yes, we try to use it in projects where it's relevant. But not as a method for all projects, and it has something to do with the fact that design thinking works best when you have the space to actually go in and be investigative in your approach to it."* She follows up by stating "*[...] there are so many things that are self-evident, where there's actually no space or time, or it doesn't make sense to investigate or have the energy for it in that way"*. This shows the tight time frames and the thought that requires extra time and work to actively use design thinking.

She added that due to the department not having a Service Designer for the second half of 2023, it is a 'bad year' talk about design thinking in CSD. In continuation of that she explained that working actively with design thinking requires a Designer on the team. *"It requires certain skills and resources. Even though everyone has to get it in somehow, to have some kind of understanding of it, it also requires someone who actually has those skills and whose job it is to hold on to it. Otherwise, I don't think you can hold on to it. Because it is quite time consuming"*. In this way she argues that working with design thinking takes both time and effort and needs to be facilitated or run by someone with strong design capabilities.

Besides informing the overall work process in CSD, the DMs drawing included an interesting aspect: internal collaboration (see highlighted sentence on figure 16). Contrary to the PMs' drawings,

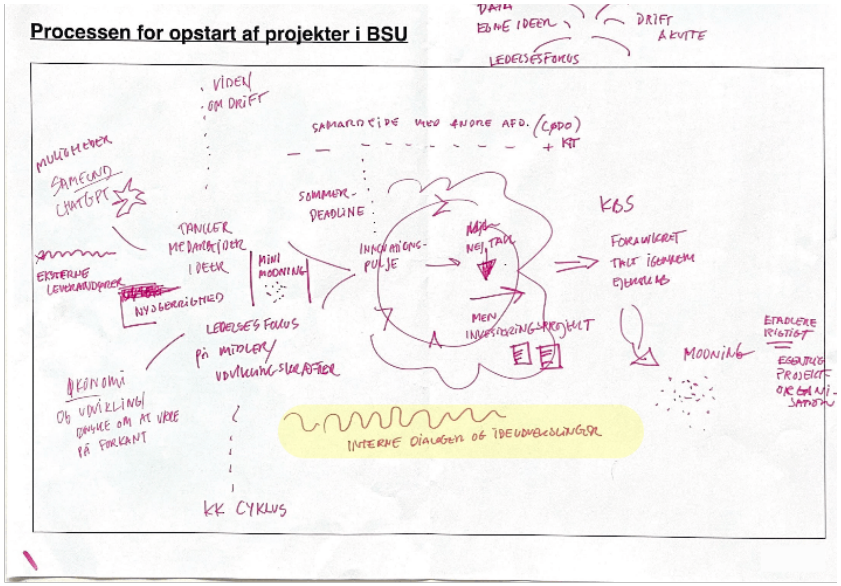


Figure 16 DM drawing of starting projects in CSD

the DM did write 'internal dialogues and exchanges of ideas', meaning that according to the DM, the PMs in CSD use each other and share ideas throughout a project. This stands in contrast to the drawings and explanations from the PMs.

Although the DM sees the internal collaboration as part of the project work, she also commented on the challenging aspects of collaboration when asked about what she thinks is generally missing in the work in CSD. To this question she expresses a wish for more *time* for collaboration *"If we had 48 hours a day, I think we should talk a lot more about all projects together and get many more different angles and have more loops and do a lot more user involvement"*. This indicates a wish to collaborate, explore and try out more things, but that it is not prioritized in a busy schedule with many other important tasks.

She furthermore states that *"I think there is still a lot to learn from each other if we had time to share more with each other and use each other's skills better. And it's a bit of pressure, because we have so many things we have to deliver on. So, the potential that lies in having many different eyes on things - I think it seems like you guys are pretty good at it - but it requires that you decide to do it, right?"*. This once again refers to the time pressure, but also to the conscious choice of making time for knowledge sharing in your daily work – and an understanding of the employees being 'pretty good at it'. Again, this stands in contrast to the PMs explanations.

6.1.6 A gap and a focus point

The contradicting perceptions of the level of internal collaboration opened a window of opportunity for the thesis project. The DM describes internal collaboration as a natural part of projects, whereas none of the interviewed PMs mention that they collaborate internally during their projects.

I therefore dived deeper into internal collaboration in CSD, and expanded the research.

“I don't really know how the other Project Managers work.

It's kind of weird not to know actually, so we could do that. So maybe we could be inspired by each other.”

Project Manager 6

[Pointing to process illustration]

“This is also where the dialog with the rest of CSD begins.

Internal dialogs and exchanges of ideas.”

Department Manager

6.1.7 Identifying a gap

In this way a 'gap' was identified. Although the Serv Qual Map is usually used in relation to services for 'customers' (40), however as Stickdorn et al. argue, 'it is all services' (17) and the frame for collaborating and sharing knowledge in CSD can therefore be seen as a 'service. In that way the DM can be seen as a 'provider' and the employee as a 'customer/user' of the service. However, not all elements of the model are relevant for this case, and have therefore been left out.

As seen on the (simplified) Serv Qual Map (see figurre 17) the detected gap can be descried as a gap between the 'expected service' and the 'management perception of consumer expectations, which is 'Gap 1'. This clearly shows that the employees (users) have expectations to the formalization of collaboration, which are not met by the DM (provider).

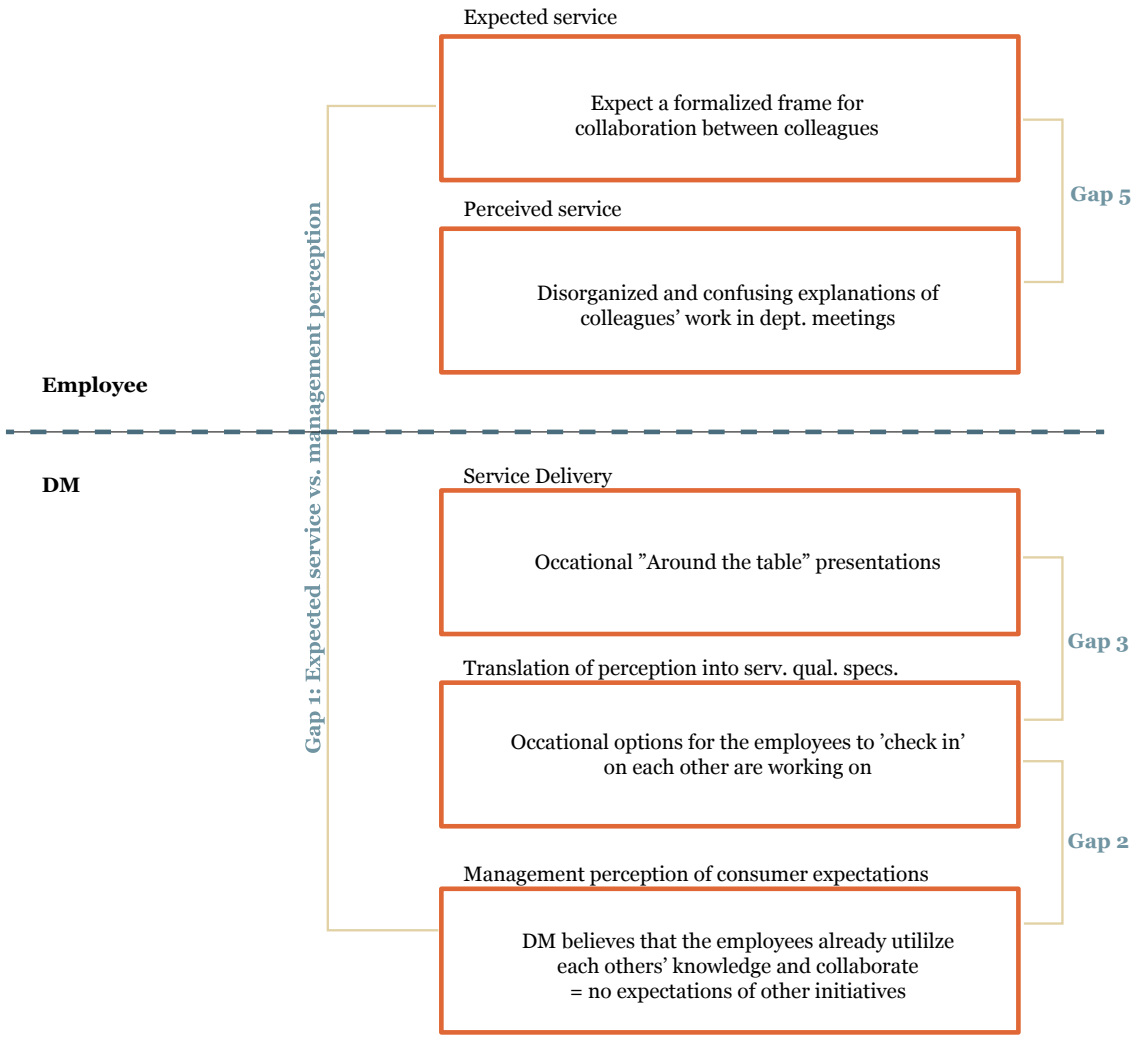


Figure 17 Serv Qual Model: Gap 1

6.1.8 Collaboration and knowledge sharing

In order to get more information about the collaboration in a survey was created. However, before creating the survey, it was important to clarify what was meant by 'collaboration'.

According to the dictionary 'collaboration' is defined as *"the situation of two or more people working together to create or achieve the same thing"*(41). This definition highlights the common goal for people working together. 'Knowledge sharing' is defined by Oxford Reference as *"The exchange of information, ideas, and technologies between people and organizations"*(42,43). This definition highlights the more 'transactional' aspect.

Chedid et al. describe that *"Knowledge sharing is associated with the collaboration process, since it is possible to leverage and create new knowledge, solutions, processes or products through it"*(42). In this way it can be argued that collaboration is the process itself of working together to achieve an overall goal and knowledge sharing can be part of the collaboration by exchanging information.

In the work with this thesis 'knowledge sharing' will therefore be seen as part of the collaboration process. Survey: Internal Collaboration across CSD

Brown argues that design thinking offers an integrated approach, which combines feelings (e.g. interviews) with the rational (e.g. a survey) and therefore offers a 'third way' of detecting a challenge. The survey can therefore be said to balance the research.

In order to verify the insights gathered through the interviews with the PMs, a survey was created. As I wanted to learn more about the general experience with collaboration in CSD, the focus shifted from only the PMs to the entire CSD department. The survey "Samarbejde på tværs af BSU" (29) [eng: Collaboration across CSD] was therefore sent out to all 23 employees in CSD.

This part of the research phase can be considered 'confirmatory research', which according to Stickdorn et al. is intended to validate specific assumptions (17). Based on the interviews the hypothesis was that there was a lack of collaboration, and the survey was sent out to validate that hypothesis.

The survey consisted of four sections:

1. The general collaboration in CSD
2. Desired types of collaboration
3. Previous experiences with collaboration
4. The challenging aspects of collaboration

The sections were built so that only people who answered 'yes' to the final question of the first section "Are there any situations in your work, where you would like more collaboration across CSD?" would be asked to answer section two. In that way the survey adapted to the answers of the employee.

In total 14 answers were collected. The low number of answers mean that there is significant uncertainty about the results, which means it will be analyzed as *qualitative* data. The survey was made in Danish.

Before looking at the results it is important to notice the definition of 'collaboration across CSD' which was presented to the respondents as the very first page of the survey.

Figure 18 Introductory page of survey

Here collaboration was defined as "*Using our colleagues in CSD who are not working on the same project as ourselves to expand our knowledge of e.g. a topic, task or project. Collaboration thus includes sparring, feedback, joint workshops, meetings and the like - out-side the established project group.*" (29). This definition was written to specify that people working on the *same project* did not count as 'collaboration across the department'. The focus was to explore the 'broader knowledge sharing' in the department rather than people who are usually part of the same project group.

As the first question, the respondents were asked to what extent they think that they collaborate with their colleagues across CSD on a scale from 'not at all' to 'to a great extend'.

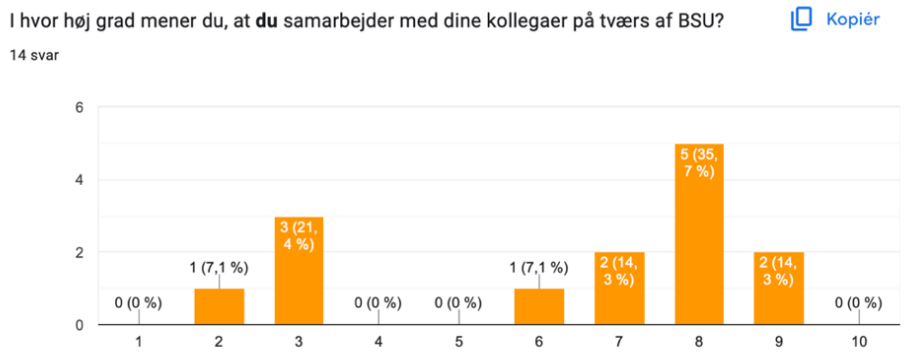


Figure 19 Survey question, current level of collaboration

As seen on the bar chart (figure 19), no one answered 'the extremes' (1 or 10), which could indicate that no one thinks they are *never* collaborating, and no one does it *to the highest degree*. The answers were formed in two 'bells': a smaller one in the lower end (2-3) and a big-ger one (6-9), which could indicate that the employees do not agree. The overall tendency leans towards that they *do* collaborate, however the 'bell' in the high-er end peaks on 8 (and not 9 or 10), which could indicate collaboration is happening but there are still things to improve.

Following up the first question, the respondents were asked how often they think their colleagues collaborate with each other. Firstly, it is important to notice that this question can be affected by bias, such as 'the grass is greener on the other side' as you might think that people are doing better than yourself. This should be kept in mind then looking at the results.

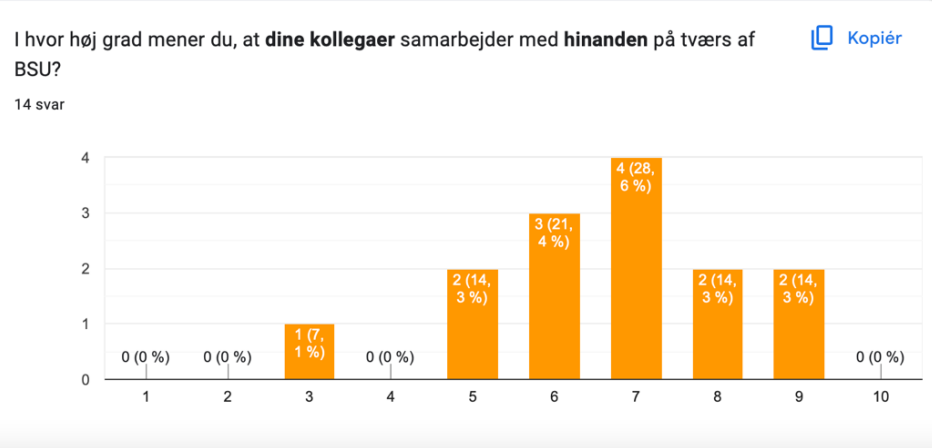


Figure 20 Survey question, others' level of collaboration

This bar chart (figure 20) has a clearer tendency, with a bell towards the higher end with a peak on 7. Only one person answered '3', but the rest of the answers are focused around 5 to 9. This result might indicate that the employees think that their colleagues collaborate with each other. As mentioned, this could be due to bias.

When asked about what is currently working well about the collaboration internally in CSD, common responses circle around open mindedness, high level of trust, positivity, curiosity and general willingness to collaborate. One respondent writes *"That everyone really wants to share their knowledge and see it live on in other tasks. That most people are really curious about each other's tasks and want to contribute."*. This statement sums up the overall answer very well.

When asked about what could be improved in the current collaboration, one theme is prominent: a structure for collaboration. Several respondents highlight the current lack of structure around collaboration, as seen on figure 21:

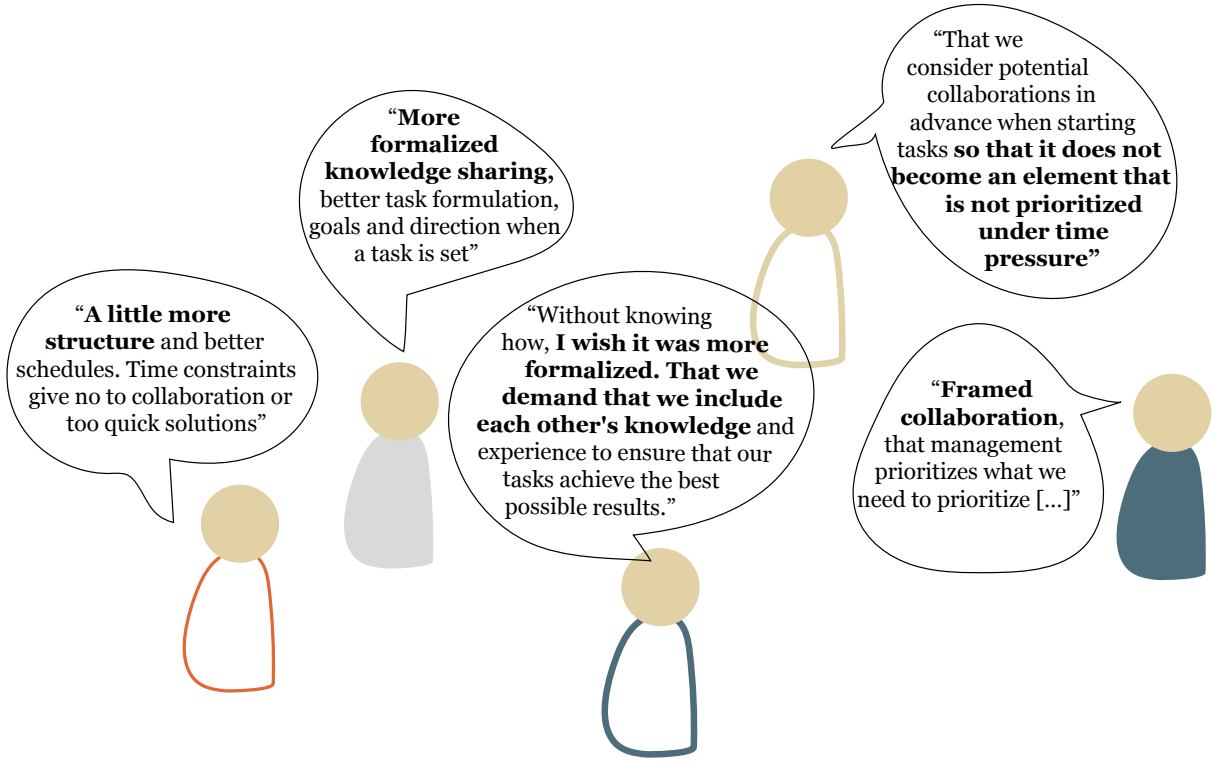


Figure 21 Quotes from survey about desired collaboration

All the quotes seen on figure 21 point towards a wish for a formalized structure for collaboration – potentially by the management taking more responsibility for the framing.

In line with the interviews, some of the respondents highlighted a wish to know more about their colleagues' work and competences when asked what could be improved. One respondent wrote *"Greater knowledge of what others are doing"* and another one states *"Maybe a little more knowledge about what my colleagues are good at or have experience with."* Like the interviews with the PMs, this highlighted a tendency of colleagues not knowing a lot about each other's work.

When asked about if they experience situations where they would like more collaboration, 9 out of 14 respondents answer 'yes' (see figure 22). This could indicate that although the answers about whether they collaborated already showed a slight positive tendency (see figure 19) many still have a wish for more collaboration.

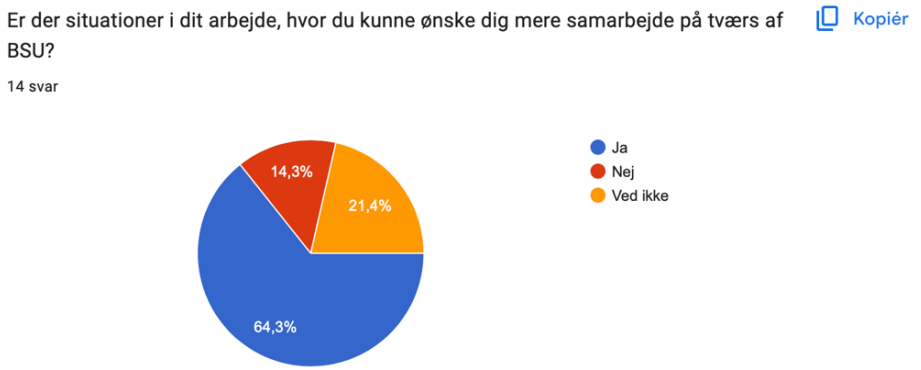


Figure 22 Survey answers for 'would you like more collaboration?'

Looking back to the first question once more (see figure 19) it gave an indication that the respondents did not fully agree and had different perceptions of the current situation. This tendency follows the answers throughout the survey: the respondents do not see it the same way. In this way it can be said that the numbers are small, yet consistent and can therefore be trusted. Although, they point in different directions.

An example of these different perceptions can be seen in the two questions addressing which initiatives have worked in the past, and which have not. One respondent highlights a 'project wall' as a positive initiative: *"The project wall was great for getting a status on a project"*. However, another respondent has the opposite experience with the same project wall: *"The project wall where you talk about your project. It just got long and tiring because there was so much that wasn't of interest (to me)"*. This exemplifies the different perceptions of what works and what doesn't. The project wall is an existing wall in the office space with a large overview of the current projects. The intention with the wall is to give an overview of how far each project has come, which was meant to be discussed in weekly 'Project wall meetings'. However, these meetings have not been happening since the end of 2023, and therefore the wall has not been updated since.

Overall, the survey answers did not show a tremendous lack of collaboration in CSD, however there was a tendency of a lack of *formalized* collaboration initiatives.

6.1.8.1 Critical view on the survey

Looking at the survey questions after having received answers, it could be argued that the questions with answers 'on a scale from 1 to 10', may have given the respondent too many options. Having used a scale of 5 and 7 could potentially have given a clearer picture.

Furthermore, the answers to one of the first questions: "How do you collaborate with your colleagues in BSU? (E.g. meetings, workshops, professional chat at lunch)" could indicate that the respondents did not read or understand the definition presented in the beginning of the survey. A few of the respondents answered 'projects' and 'development projects' which is what the definition was aiming to *exclude*. This could suggest that although stated in the beginning of the survey, it might not have been clear throughout.

6.1.9 Observation: Employee "hacking" the system

Almost simultaneously as the survey was sent out to the CSD employees, an interesting example of 'employees hacking the system to what they need' took place in the CSD Teams chat. A colleague sent out a question to the "CSD Brain" in order to find out if any of the colleagues had experience with the Enneagram personality test (44) (see figure 23).

Generally, this Microsoft Teams chat is used for employees informing each other that they are working from home on the given day, or maybe working in one of the other CS locations. There is a generally informal tone in the chat – also as indicated by the GIF sent by one of the other employees to resemble the 'CSD Brain' (see figure 23).

Figure 23 Screenshot: Employee hacking the system

The fact that this employee uses this informal chat to reach out to the colleagues could indicate two things:

1. It is up to the individual employee themselves to reach out to colleagues to get knowledge from each other.
2. There is a need for knowledge sharing – and people use the communication lines they have to talk to each other.

Finally, it was interesting to observe the response on the request: the colleagues were more than willing to help, and one colleague turned out to be 'Enneagram Practitioner'.

I talked to the employee posting the question afterwards who added: *"If I didn't ask I would have never known that we have both a practitioner and a few colleagues with experience with this topic"*. From just asking a simple question she had gotten a colleague to help her facilitate a workshop about Enneagram.

This case of an employee 'hacking' the system to spark collaboration about a topic provided an interesting example of a need not being met in the current system – and therefore the employee found alternative paths. This indeed highlighted the need mentioned in the survey answers: a forum for collaboration.

6.1.10 Current format for talking about projects

Zooming in on how projects were being shared in CSD, I made an interesting discovery in a department meeting. Usually a project would only be presented in a meeting, once it was finished. The DM would ask the PM in question to present the final project, and the PM would present a finalized solution.

The presentations would often lead to *many* questions from the colleagues, such as 'did you remember this detail?' or 'did you talk to this person, who knows a lot about this topic?'. These would all be well-meaning comments, however not very useful as the project had already been carried out and delivered. This could indicate that the colleagues had not known about the project in detail until the presentation, and therefore did not share their knowledge on the topic while the project was still in progress.

6.2 Conclusion of the Discover and Define phases

This chapter sums the learnings from the Discover and Define phases.

The Discover phase started with a strong focus on the process for carrying out projects in CSD, and therefore the IT Project Model was investigated. The framework represents a very linear process, which stands in contrast to a creative framework like the Double Diamond, which could indicate that a creative framework might not be useful as the overall frame for projects in the municipality. Investigating, prototyping, and testing this would require more research and work than the time frame for this thesis allows.

However, design thinking (and the Double Diamond) is more than a framework: it's a mindset which promotes collaboration. This will be the focus point for the thesis.

The interviews with the PMs revealed different perceptions of design thinking: some are used to working with an open mindset, and to others design thinking seemed rather foreign. When describing design thinking, the PMs and the DM emphasized 'user involvement' and 'making sure you solve the right thing'. However, as

mentioned in the literature review, collaboration is a strong pillar in design thinking.

Through the interviews with the PMs, it was discovered that there is a general lack of collaboration and knowledge about *what* other people in CSD are working on as well as how they work. The interview with the DM showed that she had the understanding that people used each other to a greater extent throughout their projects. These two points of view opened a window of opportunity: improving the internal collaboration. This meant that the scope shifted from just the PMs to the CSD department as a whole.

The interview with the DM indicated that she believes that collaboration is a matter of lack of time: *"If we had 48 hours a day, I think we should talk a lot more about all projects together and get many more different angles and have more loops and do a lot more user involvement"*. However, both the PM interviews as well as the survey point towards having a more 'formalized frame' for collaboration. So maybe it is not about lacking time, but about prioritizing collaboration in the time that is available.

The PM's work with the Double Diamond framework in the interviews revealed that a lot of knowledge is being generated during a project. Considering that CSD often work on improving the same services and systems (e.g. passport and driver's license) it can be argued that some of the knowledge gathered in one project might be relevant in other projects too (see offered services in figure 6).

The survey showed that the impressions of the current collaboration are divided. Some experience a lot of collaboration, and others have a feeling of not knowing what their colleagues are working on. This could indicate that it is up to the individual employee to seek the collaboration and make sure to involve each other. This hypothesis could be supported by the fact that the survey revealed that there is a general desire for more planned, structured, and formalized collaboration. In other words: a frame for collaboration which legitimizes spending time on it during a project.

As uncovered in the expert interviews it is essential to keep things simple, work with everyday language and set the design activities into a known context in the municipality. These will be important factors in the prototyping phase. The challenges uncovered regarding collaboration can be condensed as seen on figure 24:

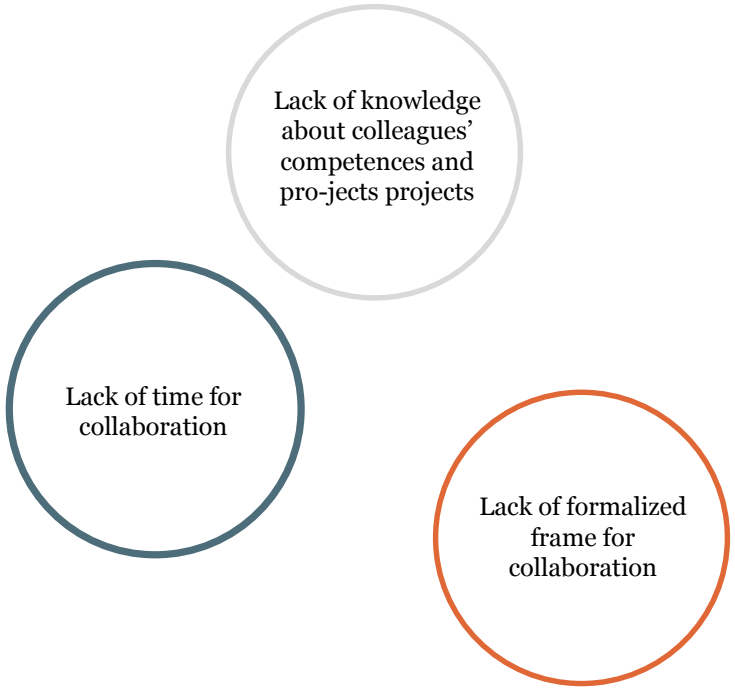


Figure 24 Challenges in CSD regarding collaboration

6.2.1 How Might We

Ending the Discover and Define phase – and therefore the first diamond (see figure 1) – the following 'How Might We' question was formulated:

How might we promote Design Thinking in CSD by creating initiatives that support internal collaboration?

As Stickdorn et al. argue a How Might We is a way to turn a question "*[...] into opportunity areas that suggest directions for potential ideation"*(14). The How Might We question will be the basis for the prototypes and tests carried out in the Develop and Deliver phases of the project.

6.3 Develop and Deliver

The following chapters dive into the second diamond of the Double Diamond: 'Develop' and 'Deliver'. As The Design Council describes *"The second diamond encourages people to give different answers to the clearly defined problem [...]"* (7) and Develop therefore means to collect inspiration from elsewhere and develop possible solutions for testing (7). The Deliver phase *"[...] involves testing out different solutions at small-scale, rejecting those that will not work and improving the ones that will"*(7). This is what will unfold in the following chapters.

6.3.1 Collaboration forums in other places

In order to collect inspiration for possible solutions I researched other types of collaboration forums in workplaces, which provided a pool of ideas. I searched for inspiration online, asked fellow students and revisited the answers from the survey about what the CSD employees had tried in previous jobs (see appendix 7).

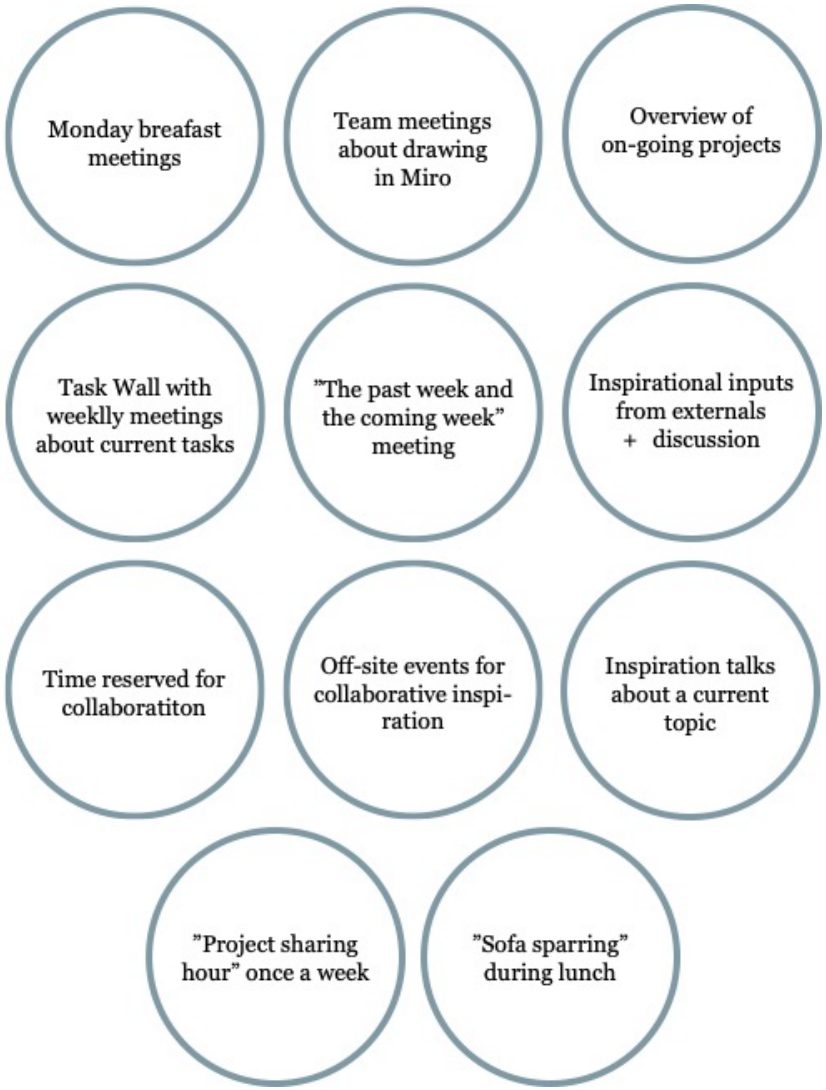


Figure 25 Collaboration in other work places: inspiration

The research of what others are doing, served to kickstart the idea generation. As seen on figure 25 the ideas and concepts range from formal to informal, quick to time consuming and involving many people or involving a smaller group of people. The fact that there are generally many initiatives to promote internal collaboration also showed that supporting collaboration is an important focus area for many companies.

As previously stated, The Design Council describes that "*developing connections and building relationships is as important as creating ideas*" (13) which supports the notion that collaboration between colleagues is important.

6.3.2 Conditions for collaboration in CSD

With input from other organizations, and a thorough understanding of the needs in CSD, I described conditions to create initiatives that foster collaboration.

1. Creating **time** for collaboration
2. Creating a **space** for collaboration
3. Creating a **framework** for explaining what you are working on

These would be the foundational themes for developing prototypes.

6.3.3 Generating ideas for prototypes

Through the Discover and Define phases, different important characteristics, and priorities in CSD had been identified. In order to compare these, a polarity map was created (See figure 26). Polarity maps are described by Manzini et al. as *"A polarity shows a possible variation along one dimension of a product-service system, between two opposite directions."* (45) In other words seeing two extremes of an aspect: e.g. long or short time.

Four critical factors were identified on the polarity map: time consumption, preparation, scheduling, and formality (organized by the management).

As previously mentioned, the time pressure is a dominant factor in the lack of collaboration, according to both the PMs and the DM. Therefore, a potential solution should not require a lot of extra time in the already tight calendars, nor require a lot of preparation. Additionally, the employees described that it is 'up to each person individually to remember to reach out to colleagues', and it is therefore easily neglected. Therefore, the collaboration should be scheduled by the management. This would furthermore send a message of collaboration being prioritized by the management.

Finally, many of the PM's requested a more formalized frame for collaboration: in other words, a higher level of formality established by the *management* who would therefore indicate that they approve of the time spent on collaboration.

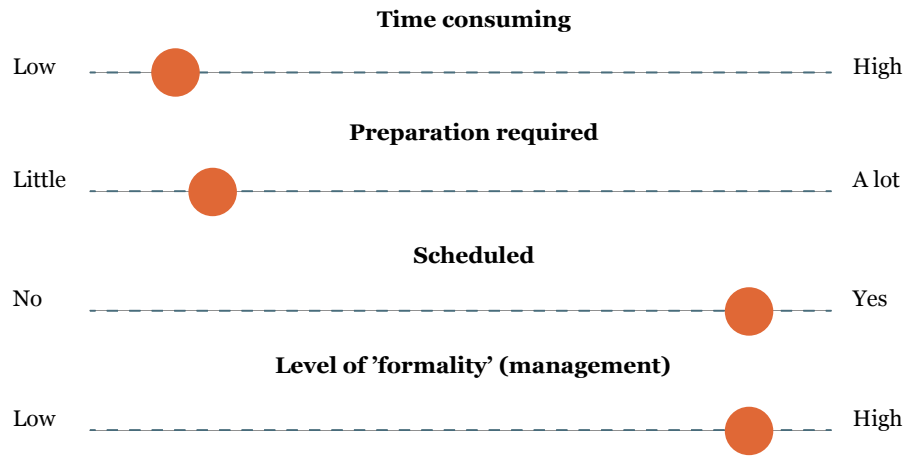


Figure 26 Polarity Map

Based on the polarity map, two important factors were detected: **scheduling** and **level of formality**. These are two independent critical factors meaning that the variation of the first factor does not influence the other. These were then put in relation to each other in a critical factor matrix (figure 27).

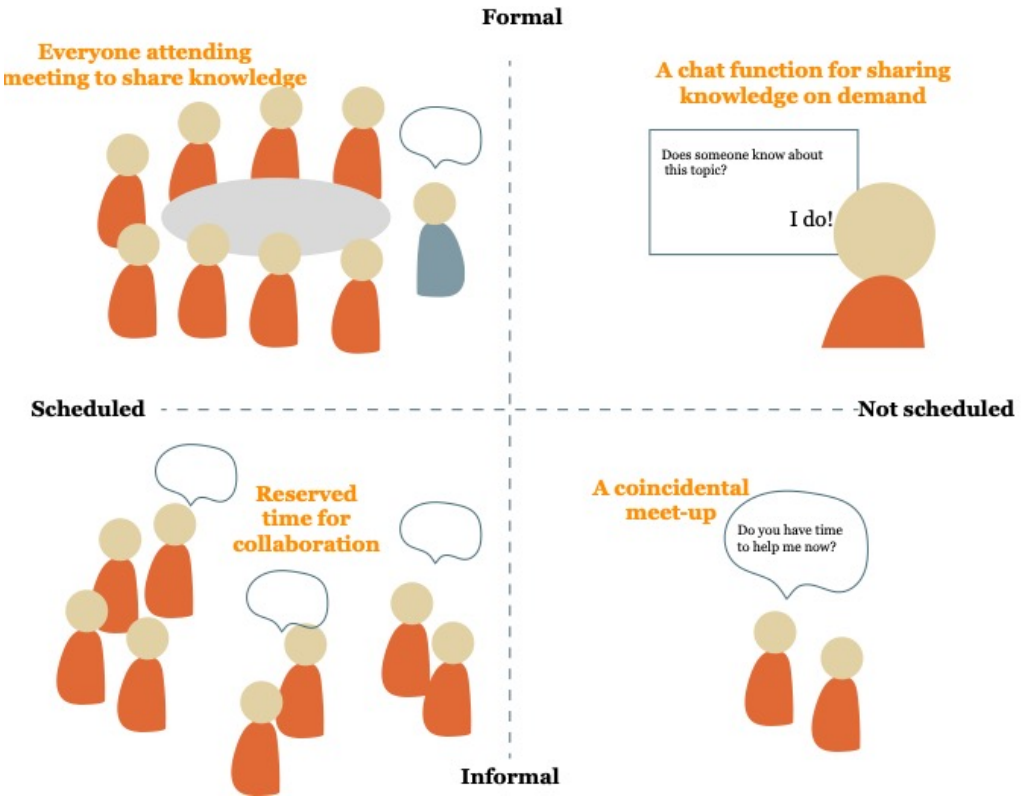


Figure 27 Critical factor matrix

The critical factor matrix explores two independent critical factors to suggest four potential concepts based on the priorities. According to Manzini et al. these can be described as *Design Orienting Scenarios* (45).

As seen on figure 27 the x axis ranges from 'scheduled' to 'not scheduled' and the y axis represents 'informal' and 'formal' meeting style.

This suggests four combinations for potential solutions that foster collaboration.

1. **Not scheduled time frame + formal**: A chat function for sharing knowledge on demand
2. **Scheduled time frame + formal**: Everyone attending the same meeting to share knowledge
3. **Scheduled time frame + informal**: Reserved time for collaboration

The **fourth** quadrant represents 'not-scheduled' and 'informal' (coincidental meet-up) which could be considered as ad-hoc questions asked when e.g. waiting by the coffee machine which happens 'by coincidence'. However, the first three quadrants show potential solution spaces, that will be tested through different prototypes.

6.3.3.1 Using existing platforms and forums

These four quadrants can be seen in relation to the existing knowledge sharing platforms or forums in CSD.

Social Teams channel (online)

The chat is typically used for informal announcements, funny pictures, and GIFs. The informal tone and friendly style can be seen as a symptom of the general positive relation they have to each other. The good atmosphere can be seen in the screenshot in figure 28.

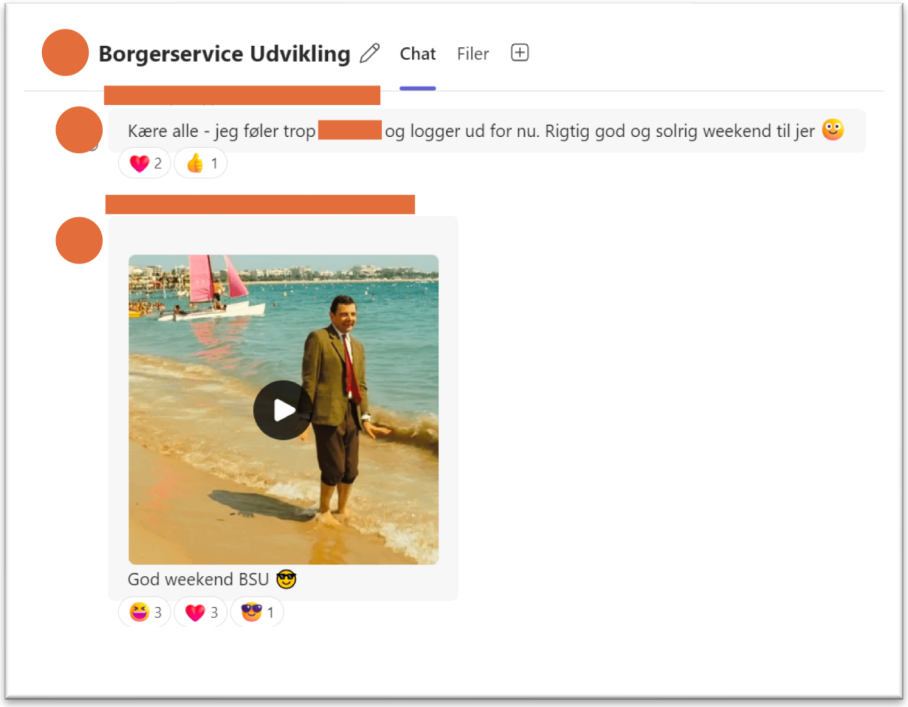


Figure 28 Existing 'social' chat

Department meetings (physical, biweekly)

The DM hosts department meetings with varying intervals depending on the calendar. The meetings usually consist of some information from the DM and smaller presentations by the employees of projects that have been carried out recently. The typical journey of the meetings is depicted in figure 29. The content of the department meetings varies a lot, but figure 29 shows an example consisting of both an 'around the table' presentation by the attending employees (2 mins each) and a presentation of a project carried out.

Figure 29 Journey Map for dept. meetings

6.3.3.1.1 Benefit of using existing channels

As Stickdorn et al. argue it is important to create a 'safe space' when facilitating design activities (17). They argue that design activities might seem foreign to non-designers, and therefore 'starting in a safe space' can be helpful. A safe space in this case can be seen as the familiar surroundings or forums.

Furthermore, Brinkman critically described that in the public sector "*Practitioners are mainly occupied with making the design thinking project a one-off success rather than instigating lasting change within public organizations"* (19) and therefore argues that design initiatives in the public sector do not last. In order to prevent this, it was a deliberate choice to create prototypes that utilized the *existing* platforms for knowledge sharing and collaboration in CSD. By doing so, the initiatives would arguably have e higher chance of surviving after the ending of the case study.

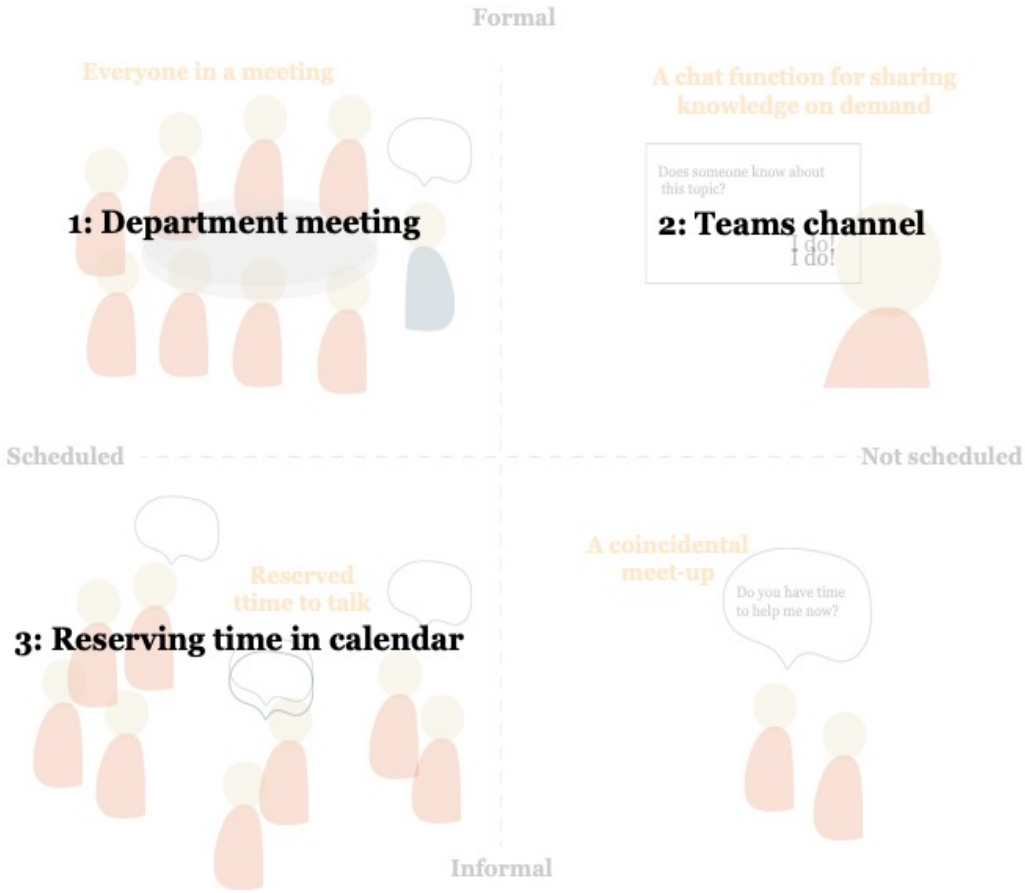


Figure 30 Existing forums seen in relation to Critical Factor Matrix

Therefore, prototypes were developed within the format of the two existing forums: the department meetings and the chat in Teams (see figure 30) The third quadrant suggested a solution space of reserving time for collaboration. This will also be tested through a prototype.

6.3.3.2 Involving the DM as a facilitator

Before starting to create prototypes, the DM was involved as a facilitator. After defining the window of opportunity in 'internal collaboration', the insights were presented to the DM. The overall message was "you believe the employees in CSD use each other a lot, and they do not have the same perception". Personally, this was an important learning point, given that I (as the Service Designer) had to point out contradictions between the DMs own perspective and her employees' words. However, the DM was willing to be part of the prototyping.

This was an important factor, as The Design Council describe: They describe that **leadership** *"is needed to encourage innovation, build skills and capability, provide permission for experimentation and learning"* (13) in this way it can be argued that involving the DM in the prototyping would be impactful for the project. As a support to this, Malmberg (21) describes the importance of the management's influence on knowledge absorption, and that 'the activities of the management influence the perception of the applicability and perception of the new knowledge'. Hence, it was interesting to activate the DM as a facilitator of the collaboration activities.

This put me, as a Designer, in the position of *planning* the facilitation which was *carried out* by the DM at the department meetings. This included making prototypes that would 'suit her' as a Manager, and not be too 'designy' and make her feel out of her comfort zone. I planned prototypes to be tested in each meeting, which I then presented to her in a 'briefing' prior to the department meeting. I would present the needed materials and give the DM instructions on how to facilitate the activity. In the briefings she had the opportunity to suggest adjustments which I would then implement in the materials before sending her the final presentation. (See figure 31).

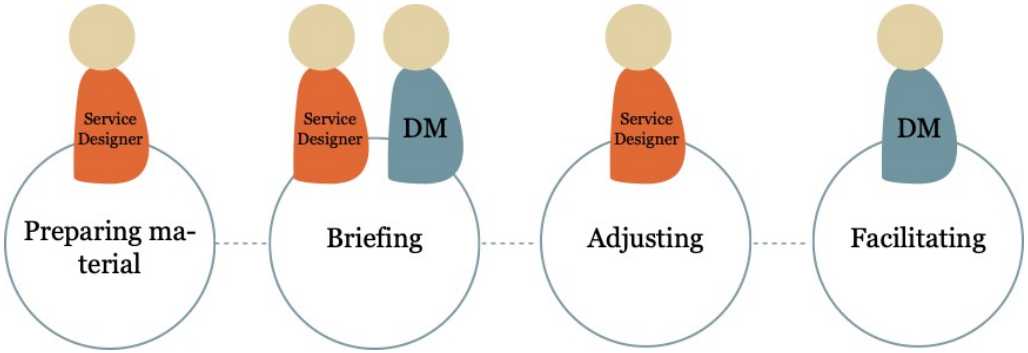


Figure 31 Process for creating materials for department meeting prototypes

6.3.4 Creating Prototypes

The following pages carefully outline the prototypes created. In the next chapter (6.3.6) the testing of each prototype will be described.

6.3.4.1 Creating prototypes for the department meetings

The prototypes in the department meetings were planned to take place in the last 10-15 minutes of the meetings. As a result, the prototypes were rather condensed.

The fact that there were five department meetings within the testing time frame offered the possibility to test different prototypes in different meetings and as well as building on the new knowledge acquired from meeting to meeting. This builds on the insights gathered from the Expert Designers, and ultimately works towards a *culture* of sharing knowledge and collaborating.

This provided an opportunity to:

1. First let the employees share the many competences they possess, to become aware of the many qualifications on the team.
2. Secondly, introduce a shared framework for talking about projects in a structured way.
3. Thirdly, introduce a new presentation format for future meetings.
4. And finally, let the employees interview each other to know more about their colleagues' projects.

As seen on figure 32 the first two sessions had the same theme, hence the first session was also a general introduction to the theme about collaboration. My general focus in creating the meeting activities was to create a 'safe space' for learning new things and experimenting with new ways of working, as Stickdorn et. al argue (17). The simple form and very basic presentations were based on the knowledge acquired from the interviews with the Expert Designers

Figure 32 Themes for the prototype in each department meeting

Furthermore, Stickdorn et al. argue that *"[...] service design can be seen as a common language or even "the glue between all disciplines" offering a shared, approachable, and neutral set of terms and activities for cross-disciplinary cooperation"*(17). Creating prototypes to be used by people of different disciplines, can therefore be said to be an interesting aspect of being a Service Designer. This can also be seen in relation to the statement from the interview with an Expert Designer, that a lot of the work is about enabling relational work between others. The prototypes will be described one by one in the following chapters.

Although figure 32 outlines the prototypes nicely, it is important to note that the plan was made from meeting to meeting. The overall theme of each prototype was planned from the beginning, however the specific activity could be adjusted to suit the employees and their reactions to the prototypes. As Stickdorn et al. argue, planning is important when facilitating, however it is necessary to keep in mind that design is also exploration, and hence a 'master plan' is not needed.

1. The first step in the department meetings was about sharing your competences

This prototype consisted of two steps: self-reflection and sharing.

Self-reflection

The first part of this prototype was an 'easy start' with a reflection exercise of answering the question: '*Write three things that I look forward to the most, when I am part of a new project in CSD'* (see figure 33). The question was answered on a piece of paper handed out. It was clearly explained that the sheet would not be shared with others. The simplicity of the task can be supported by the

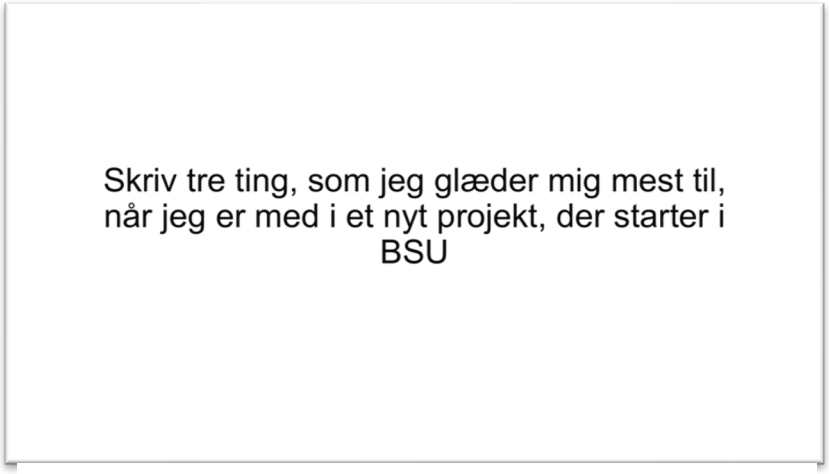


Figure 33 Question posted in the first prototype session

Expert Designers who stated that 'simplicity is key' when working with design in public sector organizations.

The exercise provided a 'warm-up' for the theme of collaboration. As Stickdorn et al. describe that warm-ups can be *"[...]great models of communication patterns or show us valuable behavior for group cooperation. Some demonstrate a point. Nearly all of them are ideation boosters."*(17) Usually warmups are done as an introduction to other the following activities, however, in this case the warmup was the only activity presented in the first session. The idea behind this was to 'generally warm up the employees' to the new theme, and delicately make them think about their competences. This was done in order to gently introduce a more reflective state. As understood from the expert interviews, it is important to approach the introduction of design thinking and its methods with simplicity and a level of ease in order to reach the employees in a non-design organization.

Stickdorn et al. argue that using tools and props is vital in a workshop, as well as 'post-it or lose it', by which they indicate that everything should be written down on post-its (17). Giving the employees a framework of questions to quickly fill in gives them a "prop" but still a rather familiar one; regular paper. This material was

chosen as it is one that the employees are familiar with and does not seem overly "designy" – also in relation to the session being facilitated by the DM.

Sharing

The second part of the competence prototype was about getting the employees to *share* their competences with each other. This was done by handing out an a5 piece of paper with simple questions as seen on figure 34.

As The Design Council argues, "*Developing connections and building relationships is as important as creating ideas.*"(13). Therefore, the second prototype explored the idea of acquiring new knowledge about colleagues – in order to build a stronger professional connection.

The template asked the employees two questions, besides filling in their name. The first question was building on the reflection question from the previous session.

1. What I look forward to the most when I am part of a new project in CSD?
2. What can my colleagues ask me about? (topic, program, method etc.)

This time the employees were informed that the piece of paper was to be shared with the colleagues and hung up in the office space afterwards. When everyone had written their answers, they were asked to share with the two colleagues sitting next to them. After the meeting, the sheets were collected and hung on a wall in the office for everyone to look at.

As stated by The Design Council, communicating visually is a central principle for the design thinking mindset (13). Following this logic, placing the sheets in the office would visually communicate the many diverse competences possessed by the CSD team.

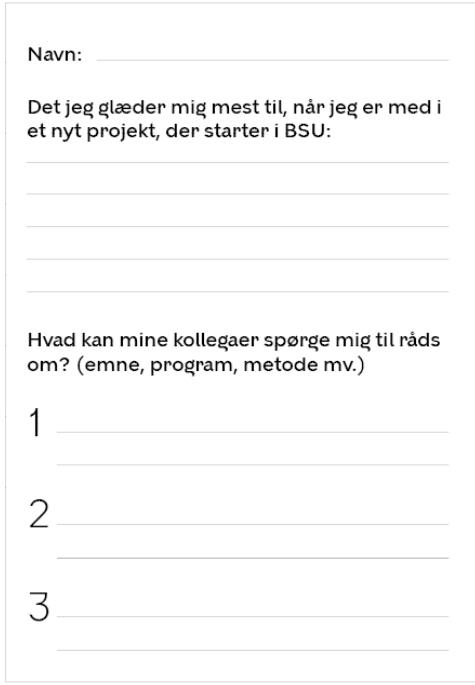


Figure 34 Prototype 1.2 Sharing your competences

2. The second step in the department meetings was about talking about your projects – in an organized way

The third prototype in the department meetings was talking about projects. Through the interviews I had learned that many employees do not know much about their colleagues' projects. Furthermore, observations in recent department meetings showed that there is a general lack of structure when people talk about what they are working on. Due to some projects being very complex it can be difficult to explain the core aspects of it. Therefore, it can be tricky for a colleague to understand, if the presenter gets lost in details but does not describe the overall aim of the project.

Additionally, the current setup for getting feedback on a project was only allowing *finalized* projects to be shared in the department meetings.

"The short explanation"

Therefore, the first prototype regarding projects was about creating a shared frame for talking about their project. The prototype consisted of a sheet of paper with a sentence to be filled in. The aim of the sentence was to guide the writer to answer five basic questions: *what, for who, why, what is the solution, and what are your challenges*. (see figure 35) The sentence was presented as "the short explanation". In this way, the employees were 'forced' to answer the same basic questions instead of getting lost in project details.

Projektets titel er _____
(skriv titel)

Det, vi forsøger at løse er _____
(beskriv problemet)

det er rettet mod _____ fordi de er udfordret af _____
(skriv målgruppen, der oplever problemet) (beskriv målgruppens primære problem)

Løsningen består i _____
(beskriv hvad løsningen er)

Min aktuelle udfordring lige nu er _____
(skriv din aktuelle udfordring i projektet)

Figure 35 'The short explanation'

In the expert interviews it was emphasized that storytelling is important when working with service design in the public sector. This exercise can be said to support *the employees* in telling a story – about their own project. The frames for the story have been created, and they fill in the professional knowledge about the topic. This can be seen in the light of the facilitator role, as explained by Stickdorn et al (17). They argue that putting a group of people, who have different backgrounds, levels of comprehension and motivational factors, requires a facilitator. They post the question: "[...] *How can we even help them get better at what they do? Figuring that out is the role of the facilitator.*" (18) The idea was to 'make them better at *telling* what they do – by giving them supporting tool.

As previously mentioned, Miller states that many service design tools are mind hacks to help reframe problems in a way that we can handle (16) The framework can arguably be seen as a 'mind hack' to explain a complex project in a simple manner.

The prototype was facilitated like a writing exercise. The employees were asked to fill it in and share their sentences with the colleagues sitting next to them. This exercise was a 'warm-up' to the following prototype: the new presentation format as this was built around the same frame.

The presentation format

Building on the 'the short explanation', a prototype for a new presentation format was created. This prototype had two goals: 1. To give a shared frame for presenting a project, 2. Allowing for *unfinished* projects to be shared in department meetings in order to open up a space for collaboration before the project is finished and it is too late.

The prototype consisted of a PowerPoint template following the same principle as the sentence for explaining your work. That

meant that instead of a blank line for each answer, there was a page in a slide deck to answer: *what, for who, why, what is the solution, and what are your challenges*. (See template in appendix 8)

The presentation was furthermore meant to be short and precise, and lasting only 5 minutes. This would require the employees to boil down their points and only tell the most central aspects.

The template was to be used by two employees at each department meeting, while allowing all colleagues in CSD to take turns to share their work.

Following the logic of the presentations being shared *during the process* the final question, 'my current challenge', allowed vulnerability and openness. This question was deliberately placed in the end of the presentation to end with 'could someone potentially help me with this?' and therefore foster ongoing collaboration.

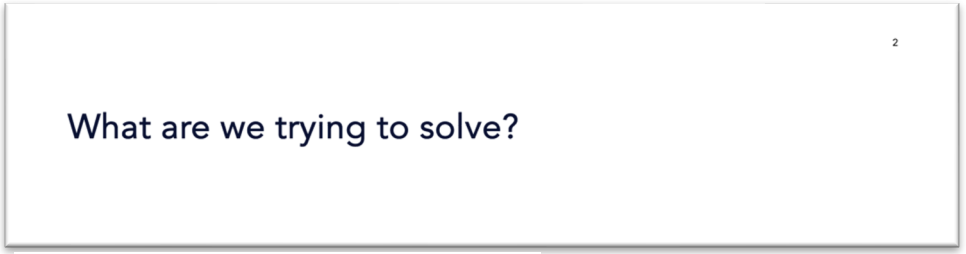


Figure 36 Slide two of presentation template

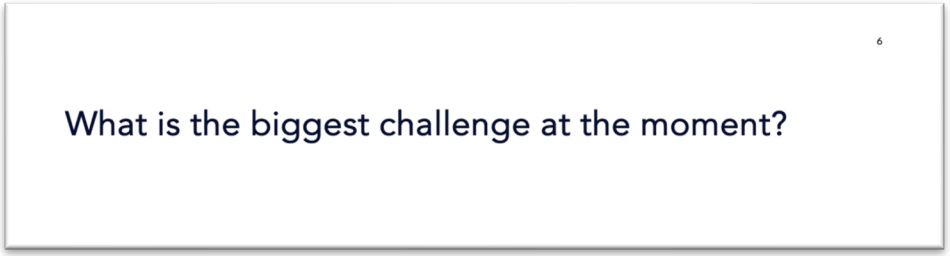


Figure 37 Slide two of presentation template

As mentioned, the presentations were meant to be shared *during* the process – when it is actually valuable and can be taken into consideration –.and not when project was finished. This can be said to change the presentation system in CSD as the existing system only supported presentations of finalized projects, as seen on figure 38.

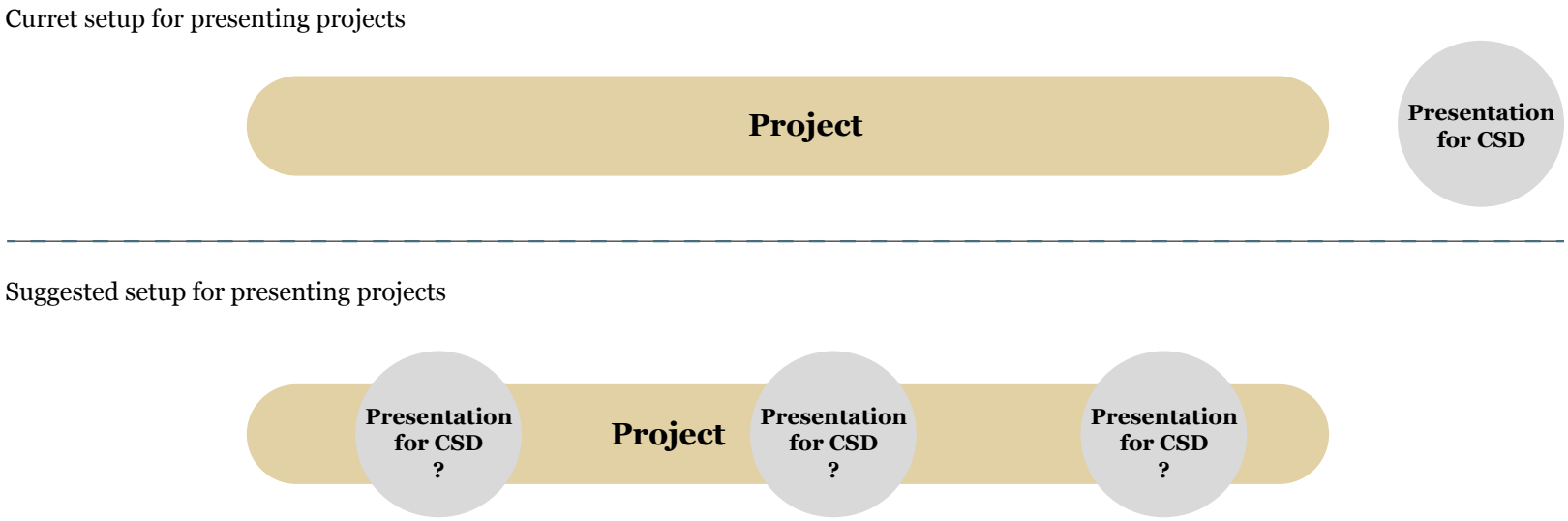


Figure 38 Current and future setups of sharing a project with colleagues

3. The third step in the department meetings was about talking about a *colleague's* project

The final prototype in the department meetings was marking the development from

1. Talking about yourself
2. Talking about your project
3. Talking about a colleague's project

This prototype was using the same format for 'the short explanation', and therefore had a familiar element.

The prototype was about giving the employees the time between two department meetings (approx. 1 week) to 'interview' a colleague about their project and fill in the 'short explanation'. In the following meeting everyone was asked to read out the sentence they had written about a colleague's project.

This prototype compelled the employees to talk to each other about their project and explain them in an understandable way – guided by the framework.

As already mentioned in regard to prototyping, The Design Council stress the importance of creating engagement by developing connections and building relationships (13). This prototype can be said to promote professional relations.

Furthermore, the prototype can be seen as a pretotype for testing the allocation of time for collaboration. Given the fact that the DM presented the prototype and informed the employees to interview each other before the next meeting, it can be argued that she 'allowed time for collaboration'. This will be further explored in a following prototype, as can be seen as a direct response to the insights collected in interviews with the PMs: the time general time pressure made it difficult to prioritize collaboration. However, through this test the DM 'allowed' time spent on getting to know more about a colleague's project.

Ultimately this prototype would create a sense of development, as the case study started with an insight about 'now knowing what my colleagues are doing'. Through this last prototype, they would be asked to do exactly that: know more about what their colleagues are doing.

6.3.4.2 Creating prototypes for the Teams channel

Besides the department meeting as a forum for everyone in CSD, they also have the 'social' Teams chat.

However, occasionally some employees ask more serious questions, which can easily get lost in memes, GIFs, and "have a nice weekend everyone" messages. Therefore, a prototype was created in the frame of Teams: a professional chat (see figure 39).

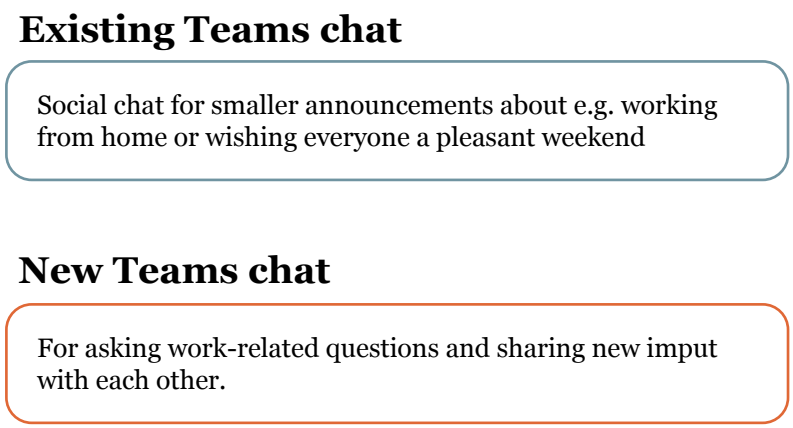


Figure 39 Prototype in Teams: a work-related chat

The chat allowed a space only for work-related questions, as well as an option for the other colleagues to answer when it suits their schedule.

The chat was created with the name: "BSU: Bare Spørg Ud" (eng: CSD: Just Ask Out). The name was creates to distinguish it from the existing chat. Moreover, the name indicated the main idea behind the chat: to just ask the CSD colleagues.

6.3.4.3 Creating prototypes for changing the schedule

The third prototype can be described as more 'system based', as it was about altering the calendar and reserving time for collaboration. This prototype was based on the interviews and survey answers where the employees expressed the 'lack of time' for collaboration. In the survey a few explained that there had been attempts to arrange "walk and talk"-sessions in the past, but the employees simply forgot to do it, as there were so many other things to take care of. Figure 40 shows a real example of how intensely reserved a regular week can be very heavily booked for an employee in CSD.

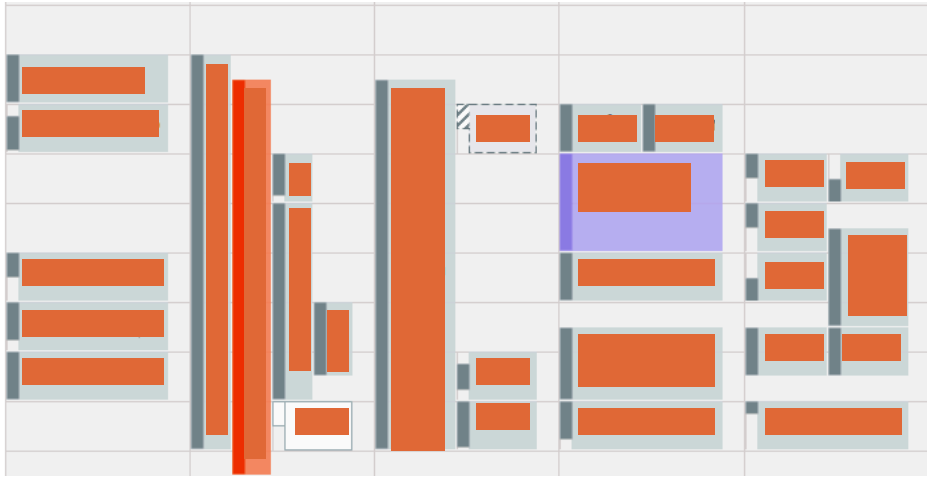


Figure 40 Screenshot of actual Outlook calender for a CSD employee (anonymized)

Therefore, this prototype allowed reserved time in the calendars of everyone in CSD – booked by the DM. In that way collaboration wouldn't be up to the individual employee to prioritize.

The prototype took place once a week towards the end of the prototype timeframe for the case study.

6.3.4.4The visual aspect: another prototype

While creating and testing the other prototypes, the need for being visual became evident for me as a Designer. The importance of working visually was also highlighted by the Expert Designers in the interviews.

The prototypes in the department meetings had deliberately been 'less designy' to suit the DM and her general way of facilitating, which meant that outrageous illustrations and visual work had been deselected. This sparked my curiosity about creating a purely visual prototype; something physical to place in the office.

In the interview with the DM, she had expressed the general lack of visual material in the office space, and in connection with facilitation Stickdorn et al. argue *"Visuals help enormously to make things tangible, helping participants move away from theoretical thinking into practical doing"*. This became the driving factor behind a fourth type of prototype: visualizing collaboration.

As previously mentioned, an employee had asked the 'CSD Brain' in the chat. This became the name of the physical 'CSD Brain' concept. The idea was to make the invisible (collaboration and knowledge sharing) visible, by putting the collaborating names, and the topic they discuss on the wall. Additionally, it would be a physical and visual reminder of talking to your colleagues. Accordingly, the visuals were colorful brains (see figure 41):

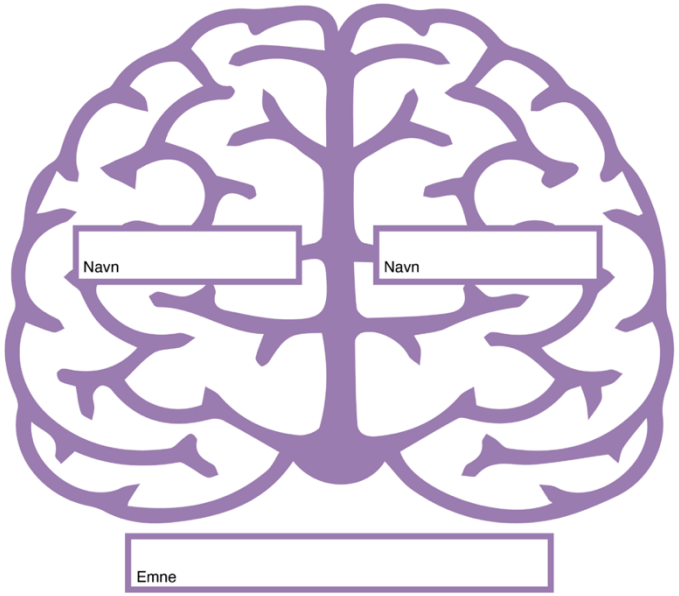


Figure 41 A CSD Brain prototype

6.3.5 Testing prototypes

This chapter describes the testing of each prototype described. As a follow-up on each prototype, informal interviews with the DM as well as two employees in CSD were carried out. The feedback from these interviews will also be presented (see appendix 9 for questions and notes from these interviews).

In line with the design thinking mindset, the 9th commandment described by Stickdorn et al. is that *"It's not about using tools; it's about changing reality"* by which they stress the importance of prototyping and testing – and not letting a project end with ideas on paper (17).

6.3.5.1 Testing prototypes for the department meetings

As previously mentioned, 'knowledge sharing' is generally considered as part of the concept of 'collaboration (42). However, the DM found it valuable to present the theme in the department meetings as "knowledge sharing", which is why this term is widely used in the following sections. As stated, the material for each presentation was made in collaboration with the DM (see figure 31).

The first step: Competences

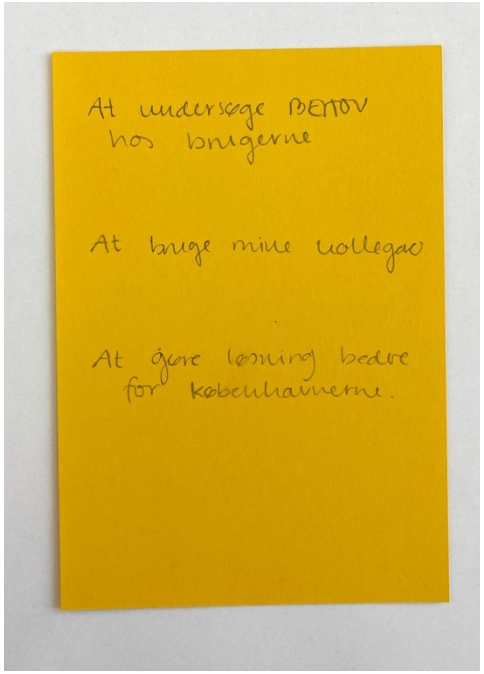


Figure 42 Prototype 1: Reflect about own competences

The first prototype to be tested was the reflection exercise. The employees were briefly introduced to the 'Theme of knowledge sharing and collaboration' by the DM and instructed in the reflection exercise (See presentation in appendix 10). The yellow 'reflection sheets' were filled in by everyone, see example in figure 42.

The employees reacted positively to the reflection exercise, although they seemed slightly confused that their answers were not shared, as the meeting were normally used for *sharing* information.

Figure 43 Pictures of first prototype session: Reflect about your own competences

Although the employees did fill in the sheets, a learning from this prototype was that it was lacking a more thorough overall introduction to the theme. This can be seen in relation to the Expert Designers' argument that storytelling is key.

In the follow-up interview an employee said there was a general confusion with the topic of collaboration – why was it important? Despite the slide deck, the reason was unclear. I will get back to this. On a positive note, a few of the employees said that the exercise had made them think about their competences afterwards.

The second test took place in the following meeting (see presentation on appendix 11). Once again, the employees got a short introduction to the task of the day by the DM Afterwards they filled in the sheet of questions, which were later hung on the wall in the office (see figure 44).

An important learning from doing this prototype was that it can be difficult to say what you are good at – possibly because people do not like to brag. One employee said out loud "I don't know what to write" which led to the colleagues suggesting different things for her to write. It was interesting to see that it was easy to say something positive about the others but not as easy to say it about yourself.

After the meeting an employee said, *"it was clear that people were eager to talk to each other"* which showed a positive reaction to the exercise. When asked about the exercise in the meeting, one employee said *"I learned how opposite me and the person next to me are. We have very different competences. I did not see it like that before."* This indicated that this was a new way of seeing your colleagues.

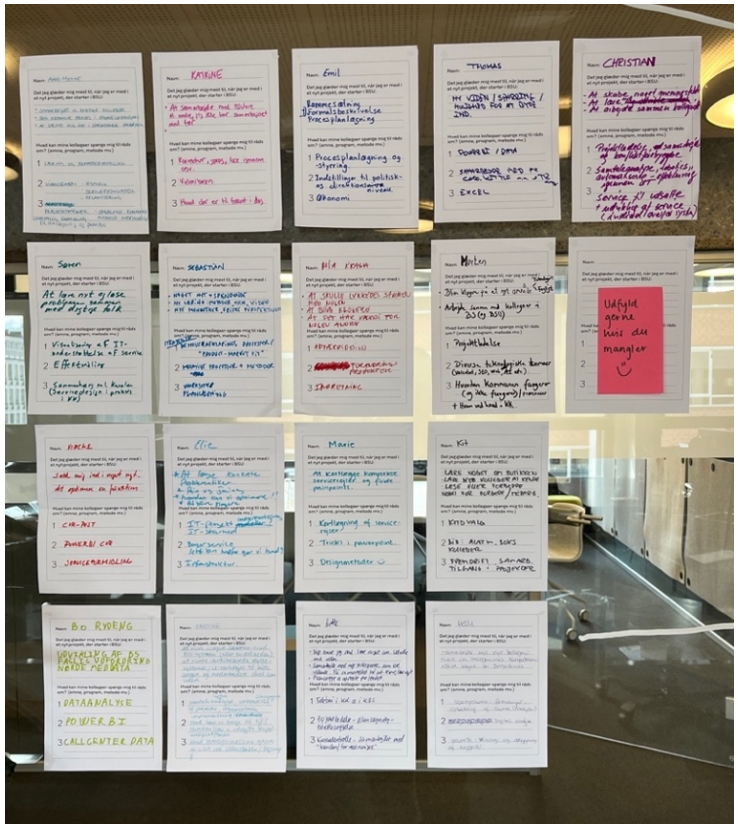


Figure 44 Sheets from department meeting 2: My competences

In the follow-up interview after the prototypes, an employee said "*it is always difficult to do exercises like this. Even if you have time to prepare for it*". At the same time, she thought it was a nice 'team exercise' but she did not learn a lot of new things about her colleagues as the things written were rather superficial. E.g. an employee working with data wrote 1. Data, 2. Data and 3. Data, which did not provide much new information.

A learning from the test was that it can be 'intimidating' to say what you are good at, as you do not know if others see you the same way. Another employee said in the follow-up interview, that she simply did not like to express her own competences, for many reasons. Partly because of the fear of the colleagues not agreeing, and partly because of 'inferiority' as she stated. She had experience with sessions about explaining each other's competences, which she would have preferred, as it is easier to say what someone else is good at. In the light of this, it could be interesting to ask people to describe each other's competences. I will get back to this in 'future steps' for the project in chapter 9.

Finally, in the follow-up interview an employee pointed out that the setting of the exercise could have made a difference in the overall experience. The session took place in a rather dark and uninspiring meeting room which did not enforce a creative atmosphere. Having done the exercise in a more inspirational room – or potentially outside – could have made a difference for the overall expe-rience.

The second step: Explain your work

The test of the 'short explanation' was carried out in the third meeting. The pieces of paper were handed out and filled in by everyone individually (see presentation in appendix 12)

The meeting had a rather tight time frame, which meant that there was not much time to share the sentences or talk about them. This created a bit of an abrupt ending to the exercise, also considering that the explanation sheets were not to be used afterwards.

However, the employees were informed about the following test of the presentation format, and two employees volunteered to present. The sheets ended up having no other function than introducing the 'overall framework'. Figure 45 depicts two examples of she short sentence filled in.

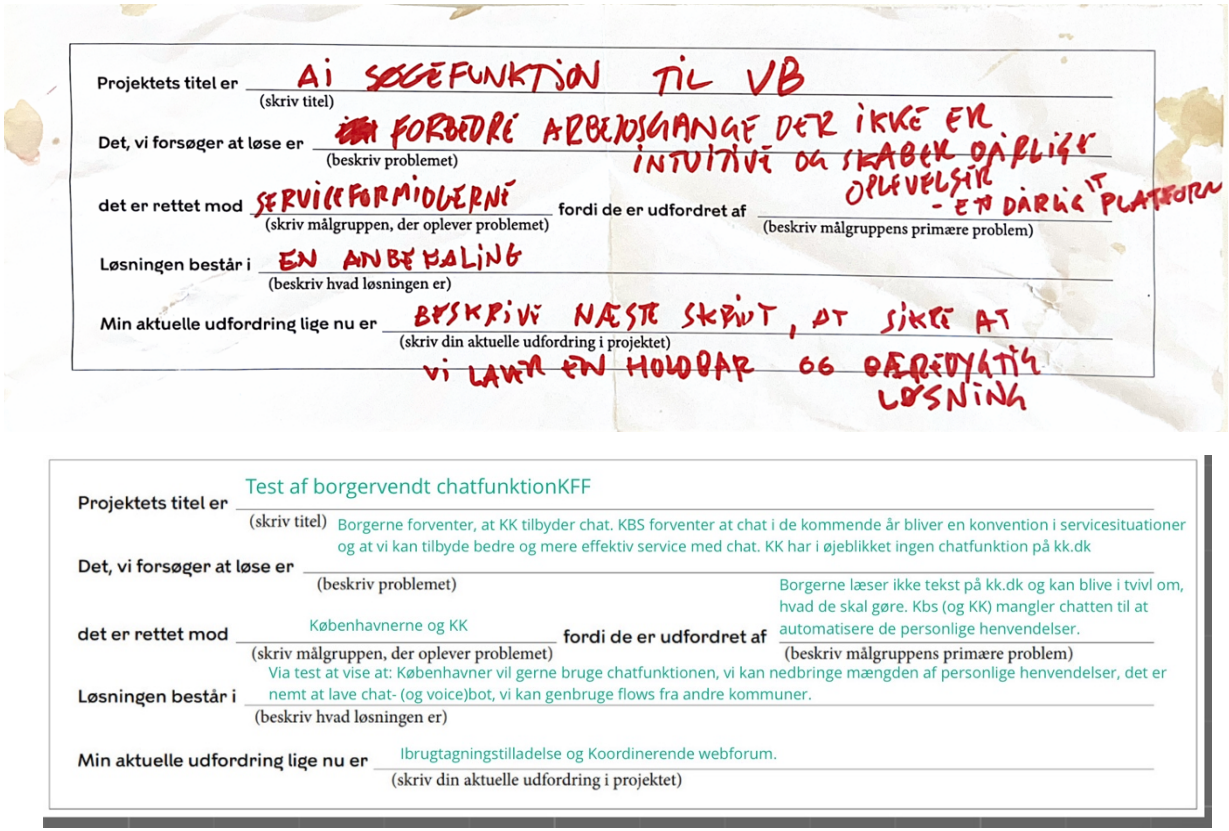


Figure 45 Two examples of 'Explain your project'

A learning from this was that it might have been beneficial to have more time for sharing – and for a follow-up discussion if needed in some projects. However, testing prototypes in a *real* setting also involves changes, postponements, and things taking longer than anticipated.

In the follow-up interview, an employee stated that it was intuitive to answer the questions and 'very good to be concrete'. She also expressed that it is very nice to keep it short, as people usually talk for a very long time about their projects when they get the chance.

The following prototype for the presentation format took place about a week later (see appendix 13 for presentation).

The template had been shared with the employees through a 'sub-channel' in Teams, which made it rather difficult to find. This meant that one of the employees who was presenting had made his own presentation and had to put all the contents into the template about 30 mins before the meeting. The other presenting employee had however been able to find the template and filled it out. (see figure 46).

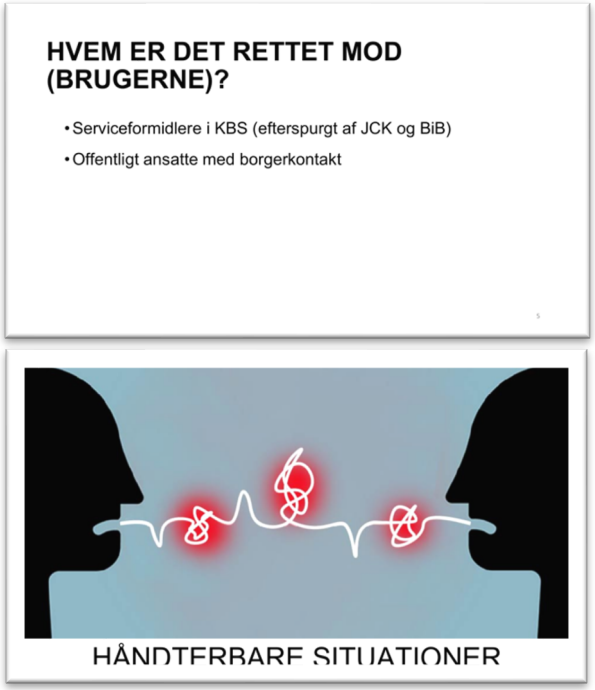


Figure 46 Template filled in by employee and presented in dept. meeting

In the department meeting each presentation was timed to 5 minutes by the DM, and there were 2-3 minutes for discussion after each presentation. The first presentation was timed perfectly to 5 minutes, but the other went a bit over time. It was evident that the first presentation had been prepared very well, and the other was more unstructured – although they were both following the template.

After each presentation it was clear that the audience (the other colleagues) were curious to talk more about the projects. There was a great energy in the room and people were eager to ask questions. The fact that each presentation ended with a 'current challenge' invited the colleagues to offer their help in various ways. Some offered to share contacts who knew more about the matter, and others offered to share their own experience. This indicated that the question was working; people offered their expertise in the others' projects.

One of the employees doing a presentation, also participated in a follow-up interview. She explained however, that she was not quite aware that the final question would lead to her colleagues offering

their help. She stated, *"It wasn't clear that it was about what my colleagues should help me with"*. In that way the output of the presentation could have been made clearer, e.g. by asking the question like 'is there something I would like my colleagues' help with?'.

When asked how she felt about sharing 'what is challenging' she expressed that "*that was completely okay*". She explained that she likes sharing her work, and noted "*you can choose what you share, if e.g. there is a challenging project partner, you can choose whether to say that or something else*".

In the follow-up interview the DM noted that '*clearly it went very well!*' as people were enthusiastic. However, she suggested that there should be more time for discussion after each presentation, as so many people showed interest in discussing the topics – which is positive. The initial thought was to have the booked 'dialogue time' for discussing the themes from the presentations (another prototype), but the test showed that there is a need for discussion time *right after* each presentation. The DM furthermore noted that everyone learns something by listening to each other's answers – which they do when they are all sitting in the same room.

Looking at the presentation format generally, the employee who tested it said that it was very nice, that 'you didn't have to think that much yourself' and the template was very straight forward. Overall, she followed the template and added more slides where she found it necessary. In this way it was indicated that the PowerPoint format is something the employees are used to, and therefore find intuitive to utilize in this context. Moreover it indicates that the flexibility of the presentation template works well and gives them a feeling of success when building a presentation that makes sense.

She furthermore pointed out that it is super useful to have a 'formula' for making an easily understandable presentation – which might also be needed when e.g. presenting a project to the management team. She explained that presenting a project to the management team can be tricky as a longer process needs to be boiled down to the essence, while making sure that the Manager understands the frame of it. The employee said that 'the template builds up arguments for you' which is why she saw a potential for using it when preparing presentations to the management in the future.

The third step: Explain a colleague's work

The final department meeting for testing a prototype had the theme 'talk about a colleague's project' (see appendix 14 for presentation). The task was given in the 4th meeting with the 'homework' for all the employees to team up with a colleague to ask about their tasks and fill in their answers.

The framework once again allowed the employees to answer the same type of questions uncovering the basic information about their work.

In the follow-up interview the employees pointed out that 'it makes sense to follow the framework' when talking to a colleague, and 'it is very nice that it is short and specific'. Interviewing a colleague to fill in the information about their project took no longer than 15 minutes.

The follow-up interview with the DM touched upon this exercise being interesting *over time* to see the development of a project. She pointed out, that the described projects should not just be the bigger projects happening – because in that way we would hear about the same over and over again. Instead, it should go deeper into smaller projects or smaller parts of the large projects.

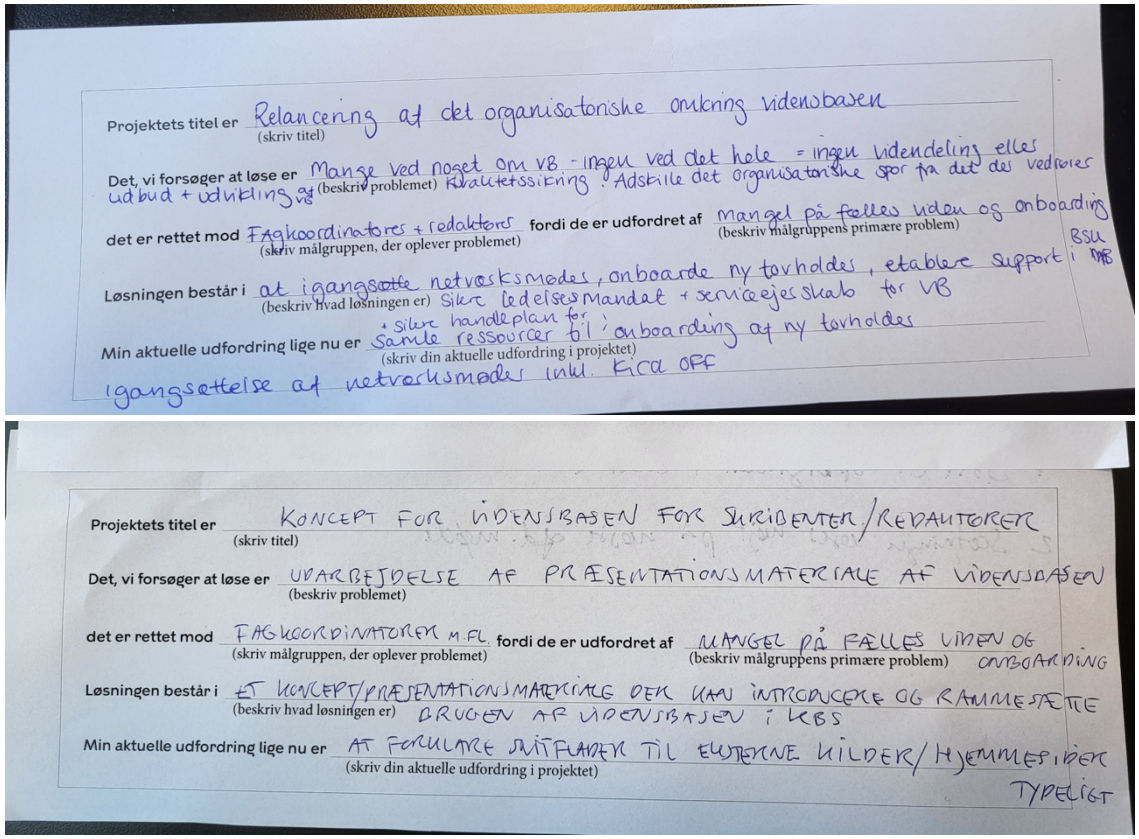


Figure 47 Two colleagues having interviewed each other

6.3.5.2 Learnings from prototypes in department meetings

Looking at the overall learnings from testing prototypes for collaboration in the department meetings it can be concluded that the employees as well as the DM sees the frame for sharing as a positive and helpful initiative.

Though, the need for more introduction to tasks and activities could have been more thorough. This could have given the employees a better understanding of *why* the activities were put in place and what the end goal was. However, through the activities the employees got an increasingly better understanding of the theme and saw it as overall positive for the team. As the Expert Designers pointed out in the interview it was highlighted that implementing design requires good explanations, and it is beneficial to put the non-designers task into context when asking them to do something. This could have been emphasized more in the prototypes.

The new presentation format had a lot of positive reactions. It sparked conversation and opened new doors for collaboration. In the future it could potentially be made clearer that part of it is about 'asking for help from colleagues'. Additionally, the format could be used in a broader context for e.g. presenting projects to the management team.

6.3.5.3 Testing prototype in chat

The kickstart of this prototype was between two department meetings as the employees were asked to 'ask a question in the chat before the following meeting'.

Figure 48 Professional chat created by the DM

To begin with the chat was rather quiet, but once the first employees started asking questions, more followed:

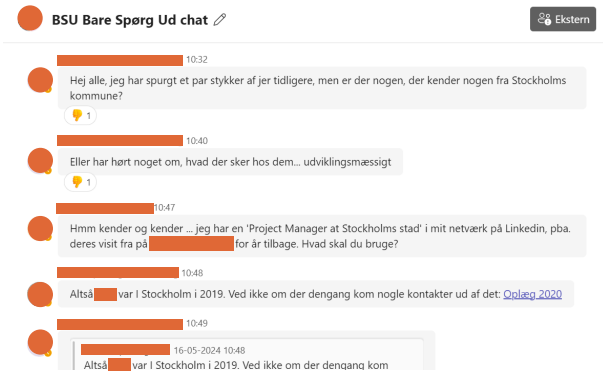


Figure 49 Professional chat in Teams, screenshot 1

The first questions asked were about many different things; professional network, software, and meeting bookings (see figure 49 and figure 50)

Figure 50 Professional chat in Teams, screenshot 2

The testing of this prototype started rather late in the prototyping time frame; however, the testing will continue until the summer break in July 2024.

In the follow-up meetings one employee questioned whether the existing Teams channel was for 'social' things. She thought of the existing chat as a place for sharing whatever was relevant to

everyone in CSD. She did however say that only some of her colleagues were using the existing chat for professional things, and that things were likely to 'drown' in memes and 'I'm working from home' messages. She did see the functionality of a new chat, but also noted that it was 'yet another thing' to take care of.

This was backed up by another employee who expressed that 'the thought behind it is good', but the problem is that you feel guilty for not answering when you are busy with something else. She also noted that there are already 'phone calls, emails, physical inquiries, and the existing chat to take care of'. In this way she expressed that although the Teams chat is a flexible communication forum, it 'feels urgent' and you easily feel guilty when not answering. She pointed out that there is a different 'feel' to sending an email, as that does not need to be answered right away. But the chat format makes it seem urgent – although it might not actually be urgent.

The DM also commented on the chat. Due to the short testing time so far, it was hard for her to conclude, but she stated that she 'had missed a forum like that for sharing professional input'. She also noted that people generally have a lot to *share* and therefore the theme could possibly be altered from 'asking a question' to 'tell something inspirational' e.g. She argued that if people shared a little teaser from something they had experienced, the chat could work as a "can opener" for more knowledge sharing.

6.3.5.4 Testing prototype: Reserved time

Like the Teams chat prototype, the reserved time took place towards the end of the prototype time frame. This prototype was presented by the DM as an 'extension' of the new presentation format in order to allow time for discussing the things presented.

The time was booked by the DM in all the CSD employees' calendars (see figure 51) as 'Dialogue Time, e.g. Walk&Talk'.

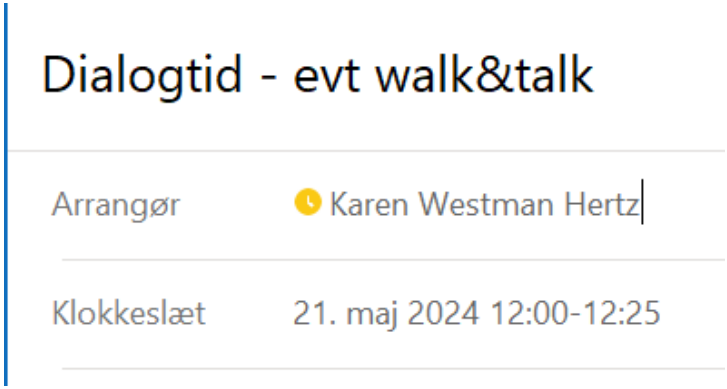


Figure 51 Time reservation in CSD employees calendars

In the follow-up interview an employee said that it is nice to get the time reserved in the calendar, as it shows that the management prioritizes it. That gives the feeling that it *is in fact* important. She was convinced that it brings great value to CSD to have time to talk to each other in that way. She noted that a similar initiative has been carried out before, but it was slowly cut out. Instead, the employees were 'just told to use each other', which is both a little unspecific and can be hard to find the time for. In continuation to that, she explained that it can be challenging to take the initiative to ask someone to go for 'walk and talk. She noted that she had attempted to do so, and the colleague had been a little puzzled and responded with 'what should we talk about?'.

Finally, she added that she looked forward to go for a 'walk and talk' with someone she does not usually work with, and explains that 'it gives certain possibilities that I would otherwise not take advantage of'.

6.3.5.5 Testing the visual aspect

Figure 52 CSD Brain wall

The CSD brains were printed, laminated and hung on the wall in the CSD office, and the prototype was presented briefly in a rushed department meeting, and afterwards 'reminded of' in the informal Teams channel. As seen on figure 53 the short introduction consisted of four steps:

1. Use the white board marker
2. Fill in your name, your collaborator's name and the topic you have talked about
3. Get inspired by the other collaborations
4. After a couple of days: Wipe away the names and make space for new inspiration

This was rather informal and lacked a more thorough introduction.

Figure 53 Introduction to 'the CSD Brain' in teams

A few employees were unsure how to use it, which is why there was another explanation in the following department meeting.

Generally, the employees were curious about the brain illustrations but did not engage with it easily. One made a joke out of it saying that they collaborated with 'Dante' (the Italian poet) about 'heaven, hell and everything in between' (see figure 54). This could in fact be an indication that the real use of it was not made very clear.

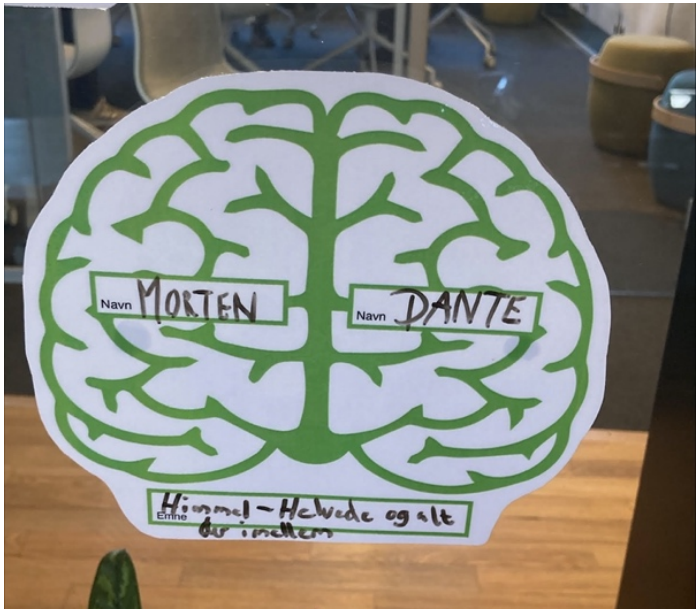


Figure 54 CSD Brain collaboration with 'Dante'

Once the first people started using the wall, more followed. After a few days many brains had been filled in (see figure 55).

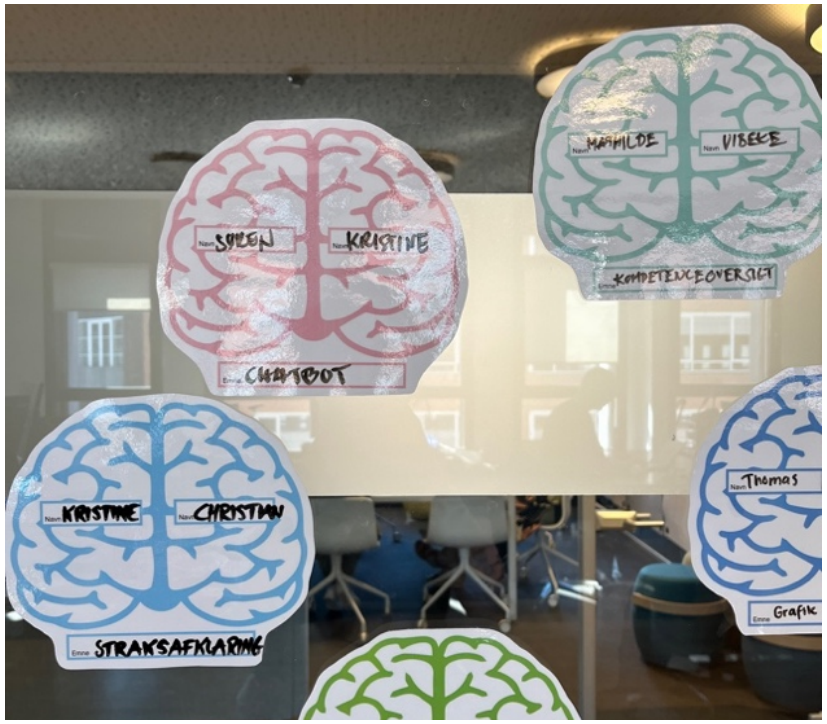


Figure 55 CSD Brains filled in

The feedback on the wall was a lot about 'its purpose'. None of the interviewees in the follow-up interviews had used it yet. One said that 'I don't dare to write on it', by which she explained that she was unsure when something is 'big enough' to write on the wall. She explained a fear of writing something on the wall, and then a colleague would think 'oh that's nothing. I do that all the time'. This highlighted two things: 1. fact that creative things might seem

unfamiliar to interact with, and 2. Exposing your work can feel vulnerable. These were interesting learnings, that may indicate that 'creative elements' like the CSD Brains might be too creative, and therefore seem very unfamiliar in the CSD setting.

This can be seen in relation to Luchs et al.s point about working with a design thinking mindset is using multimodal communication: both verbal, visual, and tactile (11). They argue that "*Design thinkers sketch and create prototypes, without being constrained by a perceived lack of ability or skill*." Opposite to this, we see the employee stating that they 'didn't dare' to write on the illustrations. This could indicate a lack of a design thinking mindset.

Additionally, the employee noted that the CSD Brain was not as formalized as the other initiatives. According to her, that might be part of the reason that it was hard to engage with – no one felt the ownership of it. A suggestion could be to have someone 'in charge' of sharing what is happening on the wall – and e.g. post it in the new CSD chat.

6.3.5.6 General reflections about making tests in CSD: DM and employees

Looking back at all the tests carried out in CSD, I asked the DM and the employees to comment on the experience.

The DM highlighted the mindset of testing things temporarily and just playing with new initiatives – this is a mindset she would like to keep working with in other project in CSD. She added that the people in CSD are generally curious people and therefore the curious mindset is a good match.

She argued that all of the initiatives could be the beginning of continuously doing this type of experimental sessions in the future. She suggested 'making people responsible' for a test or activity and taking turns to arrange and try activities e.g. At the same time, she acknowledged that it requires energy to do so, as well as a mindset that is not afraid of trying something that others might think is silly. In connection with this she pointed out that it requires a different layer of reflection – and energy – to facilitate these types of activities for your colleagues.

Generally, the DM had a slight impression that the employees had prioritized attending the department meetings. She noted that 'people who usually can't make it to the meetings have been attending'. This could indicate that something new and interesting has been happening.

The fact that there had been so many things tested out was both good and bad according to the DM. It could seem a bit forced, however she also argued that it was nice that 'everything wasn't so heavy'.

The general feedback from the employees was also positive, however slightly overwhelmed. They both noted that 'there is a lot happening'. One of them pointed out that we should be careful 'not to drown' in all the initiatives.

Looking at the 'internal collaboration theme' more generally, one employee expressed that she was quite surprised by the DM introducing this theme. In a positive way!

She explained that she sees the DM being generally more focused on development and deliverables, which stands in contrast to the theme about collaboration. She said that collaboration is not usually on the DMs agenda – although the DM is not against it.

She furthermore highlighted that it is good to talk about the projects we are working on. She said 'we refer to ourselves as a development department, but many of our tasks are operational. And no

one talks about that'. In this way she expressed that the format for sharing could give 'speaking time' to *all types* of tasks in CSD.

Lastly the follow-up interviews highlighted the need for having an 'ambassador' for the activities in the future. The employee said that she was afraid of the collaboration activities being neglected once the Designer leaves and asked the question: "Who will do it if not you?".

6.3.5.7 DM's feedback on facilitating

After facilitating all the prototypes in the department meetings, the DM was interviewed about her overall experience. Here it is important to notice that the DM has had a long career as a Manager, and naturally knows how to manage and facilitate tasks. However, the design aspects were new to her.

Firstly, she expressed that it was "*incredibly nice to have someone telling you what to do"*. She added that having someone tell you what to do takes away some of the responsibility if it does not work as anticipated. She had enjoyed the setup for the briefings before the meetings, but also added that 'could also be made as a type of tool box'.

The fact that the DM was willing to be a central part of the prototyping can be seen in relation to Luchs et al.'s argument that a 'growth mindset' is a central part of the design thinking mindset (11). The fact that she was willing to get involved in testing ideas, and protypes – and had a good experience doing so – can be said to have supported her 'growth mindset'.

6.4 Conclusion of the Develop and Deliver Phases

The Develop and Deliver phases started with the following challenges identified:

- Lack of knowledge about colleagues' competences and projects
- Lack of time for collaboration
- Lack of a formalized frame for collaboration

Through various prototypes potential solutions for these challenges were tested. Overall, the DM as well as the employees reacted positively to the prototypes, however testing a lot of things in a relatively short time frame became a little hectic and overwhelming for some. This could possibly be seen in relation to the generally less explorative mindset in the public sector – as a symptom of the lack of space for design thinking in the public sector, as Brinkman argues. I will get back to this in chapter 8.

Now, looking at the prototypes separately, it can be argued that the prototypes in the department meeting could have been presented more clearly. The introduction to the theme of collaboration was only shortly introduced by the DM, which left the employees slightly confused. Especially since some employees were surprised that the DM would allocate so much time for a 'softer' topic like collaboration. Hence, a more thorough introduction could be useful. According to the Expert Designers, storytelling is key, and it can be argued, that I as a Designer, focused more on guiding – and telling the story of the reasoning behind the prototypes – to *the DM*. In this way it can be argued that the introduction and storytelling to the employees was put in the background. This was a valuable learning point for me.

The new professional Teams chat was perceived as an overall good initiative; however, the employees argue that it can easily become 'too much' considering all the existing channels of communication. So, it can be argued that the different initiatives should be distributed over a longer period, as this can feel less overwhelming. The general expectations also needed to be made clearer, as the chat function itself can seem 'urgent'. It can be argued that a 'set of rules' should be presented when opening the chat: e.g. you answer when you have time and suggest that you can 'put your name down' to say that you would like to talk more about the specific topic – when you have time.

The reserved time in the calendar also had a positive reception by the employees. The test time for this was rather short, but in general the employees appreciated that the management had 'made the choice for them' and booked time for collaboration. In that it was it is no longer up to the individual employee to reach out to a colleague and 'take their time'.

The less formalized prototype, the CSD Brain wall, had more mixed feedback. Generally, it was perceived as 'a fun element' rather than an informative one. Given the fact that no one was given the responsibility to follow up on what was written on the wall, it easily became irrelevant. To make it useful it could potentially be someone's responsibility to post e.g. "the weekly status of the CSD Brain" in Teams, or the DM could follow up on it in the department meetings.

As in most projects, time limitations play a big role. This is also the case for the prototyping in this case study. Specifically, the dialogue time and the professional chat had a very limited time frame for testing. However, these two prototypes, along with the presentation format will continue to be used and tested in CSD until the summer break in July 2024.

Generally, it is important to note that it was possible to do a lot of different tests in the CSD office as the employees are generally curious people and the work is somewhat flexible. Unlike e.g. the front-line staff in CS who have strictly booked rosters.

Through the feedback from both the DM and the employees it can be argued that the prototypes have shown a change in the DMs understanding of working with design initiatives. It appeared that her approach to the activities has turned more 'designerly' which is positively supported by the employees who find it valuable that collaborative initiatives are prioritized. Seen in the light of Malmbergs three identified aspects of design capability (21), it can be argued that the DM worked towards 'awareness of design', as she saw the potential contribution of design initiatives – and the positive outcome.

6.5 Proposed Solution

The proposed solution is aimed for the DM (or other Managers in the public sector) who looks to create a frame that promotes internal collaboration in a department. The proposed solution is presented in a document format which provides an easy an accessible guide for the DM.

The guide is aimed at public sector organizations which, based on the research carried out in this thesis, are not likely to work with design thinking generally. Hence, introducing the collaborative features of the design thinking *mindset* could be a first step of utilizing design thinking in the public sector.

The material starts out presenting the overall theme of collaboration and how it can enhance the design thinking mindset in a public sector organization. The introduction furthermore consists of an introductory presentation for the Manager to use when starting. The introductory presentation sets the scene for the activities that are about to take place – as well as a reason behind. This gives the employees an initial understanding of what will happen.

Based on the feedback from the prototypes in the case study, the proposed solution consists of three parts:

1. **Creating space for collaboration**

This section presents the idea of giving the employees two forums for sharing knowledge: an online chat for professional questions and allocated time in department meetings.

In the online chat a set of 'ground rules' should be specified, to address the otherwise 'urgent' feel to an online chat.

It should be stated that it is not expected that questions are being answered straight away, and it is also acceptable to just write 'I know more about this, let's talk later' when the employee does not have time to answer right away.

2. **Creating time for collaboration**

This section presents the aspect of reserving time for collaboration – as a Manager. This helps the employees prioritize the collaboration and sends the signal from the management that it *should* be prioritized.

3. **Creating a framework for sharing what you are working on**

Finally, the framework for talking about a project is presented in the form of a PowerPoint template. The framework is meant to be used in the department meeting presentations – but can

furthermore be used in many other presentation situations too. The framework guides the employee to describe the most critical elements of a project, as well as sharing their current challenges which allows the colleagues to offer their help to solve said challenges. The final slide in the presentation is meant to be an initiator for 'asking your colleagues for help', to promote new collaborations across the department.

By implementing these frames for collaboration, the Manager will work towards nurturing the internal collaboration.

See the document for the proposed solution in appendix 15.

The Journey Maps in figure 56 show the previous journey of activities in department meetings, seen in comparison with journey for the suggested solution. As seen, the proposed solution requires preparation as the journey therefore starts *before* the meeting. Another change is the fact that unfinished projects are presented, which allows the colleagues to provide feedback highly valuable feedback the suggestions.

Stickdorn et al. argue that service design helps innovate or improve services to make them **useful** and intuitive for the users. (14) Creating a system change ensuring that feedback from a colleague is given when it is **usable**, and not when it is too late can be said to support Stickdorn et al.s claim. The redesigned service is arguably more useful.

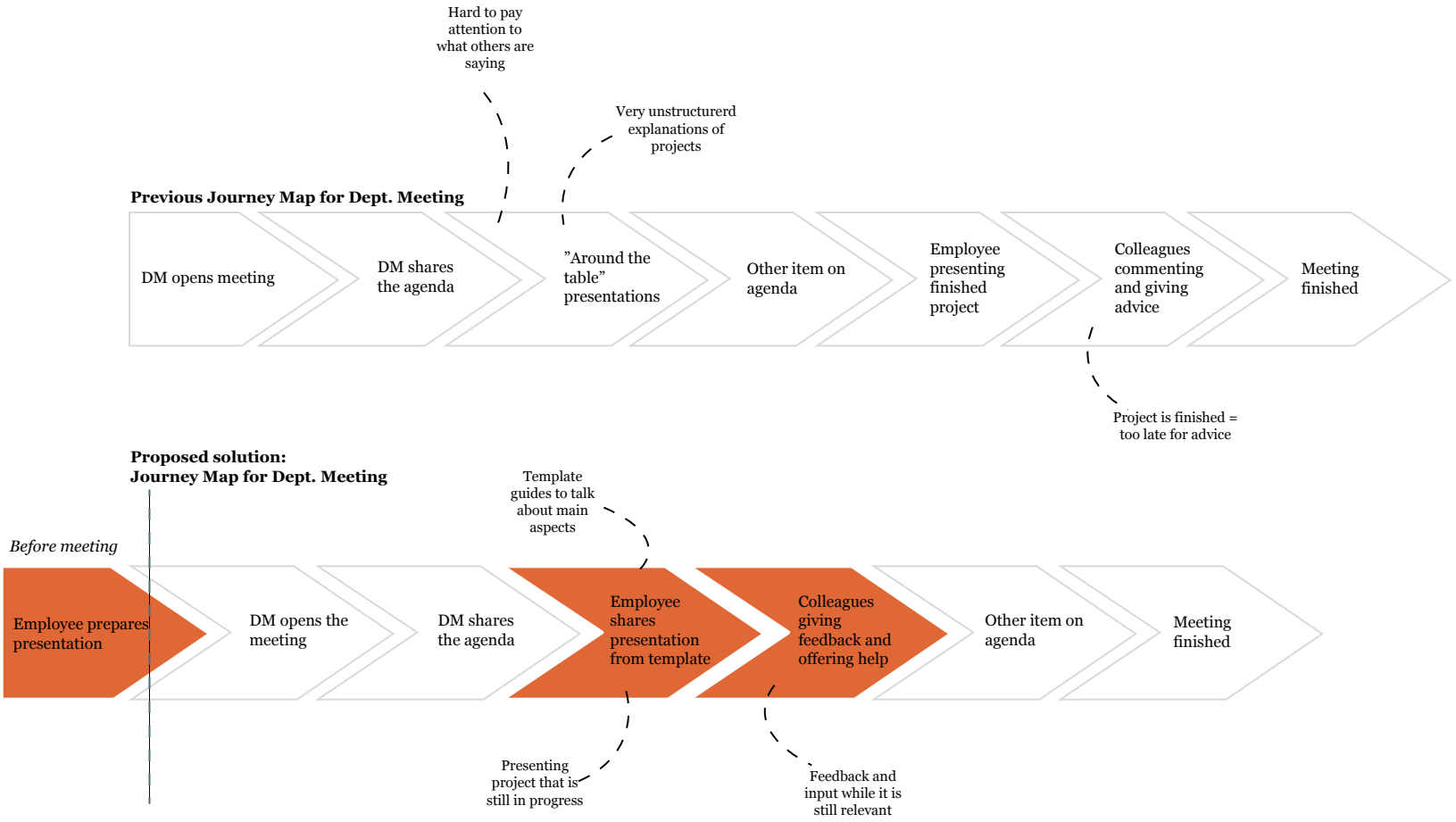


Figure 56 Previous and proposed journey for dept. meetings

Figure 57 shows the journey from the presenting employee's view. The figure showcases the steps needed to prepare for a presentation in a department meeting. This will be elaborated in a Service Blueprint.

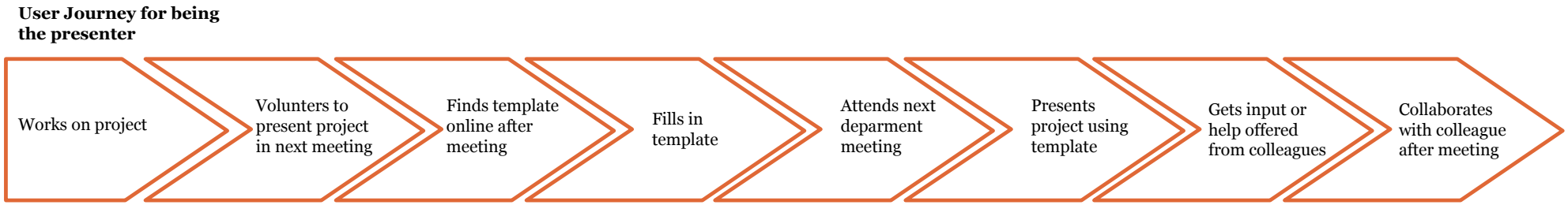


Figure 57 User Journey for presenting project in a dept. meeting

Figure 58 thoroughly explains the systems in place for preparing a presentation and presenting it in a department meeting. Besides the steps for each stakeholder and it-systems, the service evidence is shown. These are: emails, reminders in Outlook, Teams messages, the presentation template, and the PowerPoint presentation itself.

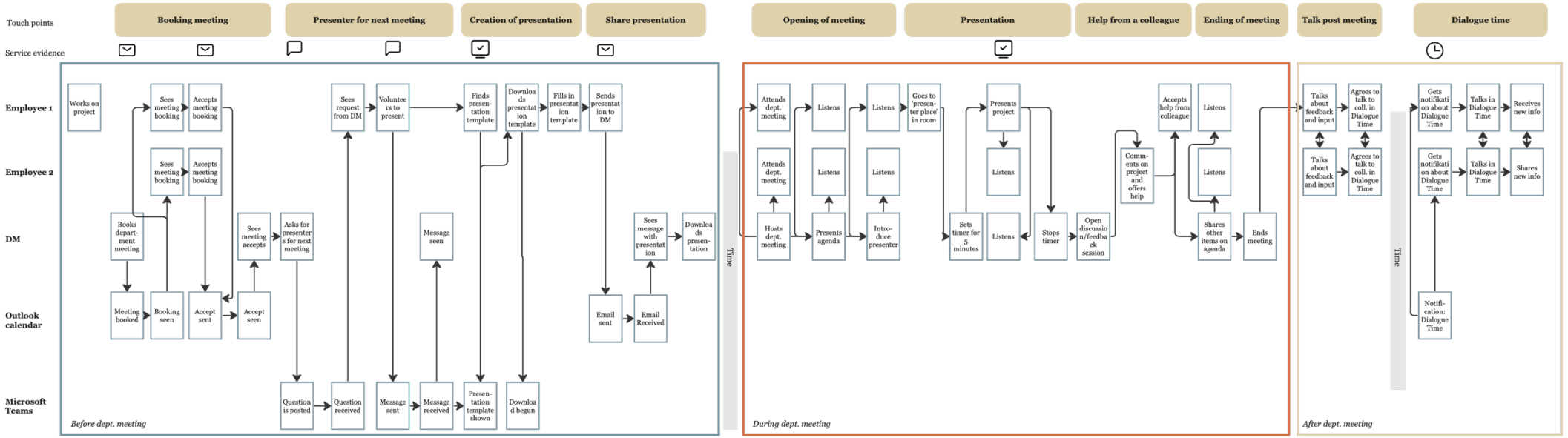


Figure 58: Service Blueprint of department meeting with presentation

The use case presented in figure 59 showcases an employee (employee x) presenting project in department meeting using the presentation template. The use case distinguishes between pre- and post-conditions and the 'flow of events' in the meeting.

The orange text marks potential alternative paths, as meetings are not identical and there will be other varying items on the agenda besides the presentation. In the post-conditions it is depicted that there are different alternative paths for the way in which the employees share knowledge after the meeting.

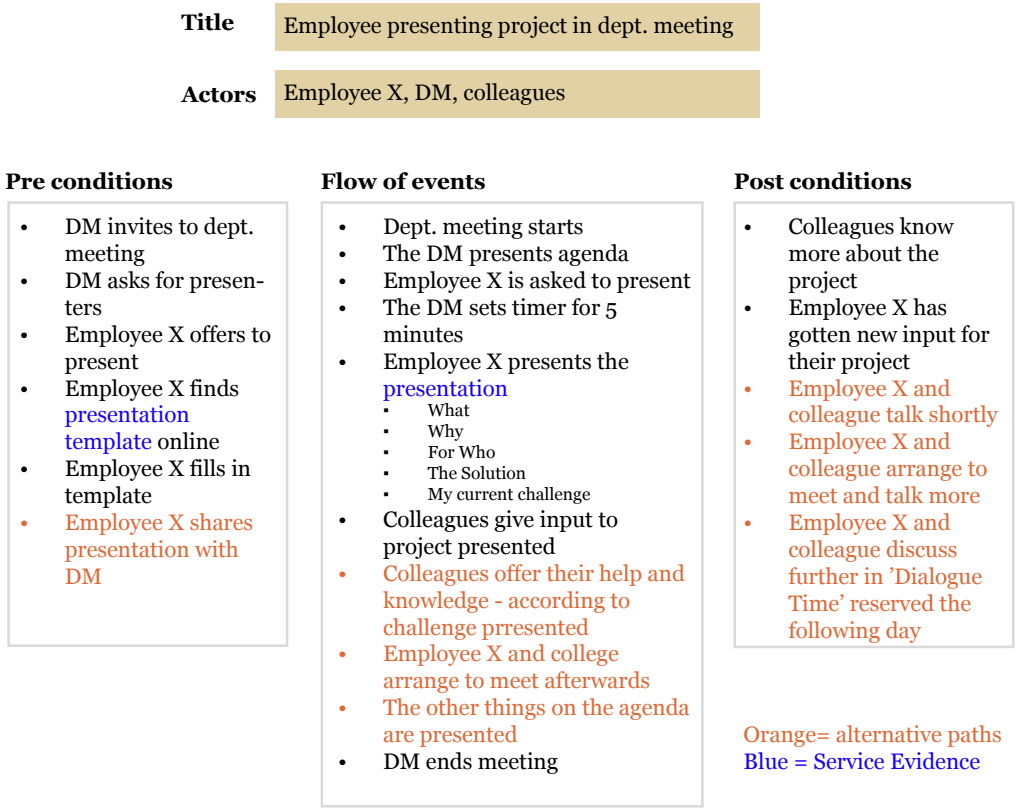


Figure 59 Usecase for presenting in dept. meeting

7 Delivery for CSD/ Pitch

In order to present the findings from the case study carried out to CSD – and potentially other interested Managers in the public sector – a video pitch was created for the final solution. This pitch video explains how collaboration activities can enhance the design thinking mindset in public sector organizations.

See pitch video and slide deck in appendix 16.

8 Discussion

In this chapter the results from the case study (chapter 6) will be discussed in relation to the literature presented in the beginning of the thesis (chapter 4).

8.1 Design Thinking Framework and Mindset

As argued throughout the thesis, the IT Project Model (38) used for projects in Copenhagen Municipality can be seen as contradicting to the design thinking framework, the Double Diamond (7). Tim Brown argues that design thinking can be used in many different contexts (10), though Brinkman et al. argue that public organizations do not provide a receptive context for design thinking, as it favors rationality and stability over explorative approaches (19). Through the case study it can be argued that both Brown and Brinkman are right: Copenhagen Municipality does not provide a receptive context for design thinking as a framework, however the *mindset* of design thinking is arguable still relevant, and therefore Brown's statement can also be seen as true.

The case study focused on the 'collaborative' aspects of the design thinking mindset, which both The Design Council (13) and Luchs et al. (11) and Interaction Design Foundation (4) highlight in their principles for the design thinking mindset.

According to the sets of principles presented, there are many features of working with design thinking. Arguably, working *solely* on improving the internal collaboration will not make CSD a *design thinking department*, as there are many other qualifications and approaches to design thinking. As Levitt argues, design thinking takes time and practice to master – and it cannot be taught in two-day workshop. It could be argued that the time frame of a thesis is not long enough either. Building on this, it can be said the aim of the case study was not to make the employees 'Design Thinkers' as such, but rather to make initiatives that support them in working towards a more design thinking oriented mindset by utilizing knowledge from their colleagues.

8.2 Building Design Capability in the Public Sector

To see the projects in CSD in the light of the Double Diamond, the PMs were asked to 'see their project in the light of the Double Diamond. However, Ramsden points out that there is a misleading implication that the Double Diamond process is linear, and not iterative. (32) In case study interviews the Double Diamond was used as a design tool in with the function of a 'boundary object' which offered a shared frame for talking about something otherwise intangible: the project process. Though, Ramsdens' argument that the Double Diamond appears to be linear could potentially 'make it easier' for the PMs to fill in their rather linear projects in the

Double Diamond framework – although the actual methodologies behind the projects are contradicting. Ramsden argues that *"the most successful design projects see a dialogue of back and forth, rather than a linear progression"* (32), which could point out that the projects in CSD are not as compatible with the Double Diamond framework as otherwise indicated on the drawings.

Through the case study it was shown that the employees in CSD have different levels of familiarity with design thinking in general. It can therefore be argued that it is worthwhile to understand how to improve the so-called *design capability* in CSD.

In order to do so, different initiatives were made towards nurturing the design thinking mindset. According to Malmberg there are different ways for an organization to improve the design capability (21):

1. **Design resources** = the design competency, skills, or activities brought by trained designers or in the use of a design methodology
2. **Awareness of design** = an organization's perception and understanding of design and designs potential contribution.
3. **Structures that enable the use of design** = an organization's ability to make use of design practice by creating the right setting for it

It can be argued that the case study carried classifies as 'design resources brought by trained Designers' to CSD. By introducing new experimental activities, the employees were exposed to design methods – brought by me as a Designer. However, given that the prototypes were presented rather abruptly and lacked a more thorough introduction for the employees, it can also be argued that the 'awareness of design' has not been leveraged noticeably. This might also be due to the focus shift towards the DM as a key stakeholder and facilitator. This role made her the recipient for the initiatives (as she needed to facilitate them) and therefore it can be argued that *her* awareness of design has in fact been elevated. Arguably she has gotten a new understanding of design and designs potential contribution. Through the feedback from both the DM and the employees it can be argued that the prototypes have shown a change in the DMs understanding of working with design initiatives. It appeared that her approach to the activities has turned more 'designerly' which is positively supported by the employees who find it valuable that collaborative initiatives are prioritized. In this way it could be argued that if the DM's mindset towards Design

Thinking changes it could affect the employees as well. The general mindset could in that way move towards the employees creating new experimental initiatives themselves.

The third aspect of design capability according to Malmberg: 'structures that enable the use of design' (21), can be said to be the core of this thesis: the structures of CSD have been altered to promote collaboration in order to work towards improving the design thinking mindset in CSD. However, as already argued the overall framework for the work in Copenhagen Municipality (the IT Project Model) arguably does not enable the use of design, as the basic framework is contradicting the framework for working with design thinking.

Going back to the DM's increased understanding of the potential of Design can be seen in relation to Malmberg's description of 'absorptive capacity' in an organization(21). As previously mentioned, this model consists of three levels: 1. Recognize value in new knowledge, 2. Assimilate new knowledge, 3. Exploit new knowledge. These levels can be seen as the ability to handle, incorporate and make use of new knowledge. Through the prototypes the employees were exposed to new knowledge – new ways of working towards more collaboration. It can be argued that not all the prototypes were equally easy for the employees to 'absorb'. The CSD Brains wall was arguably neither assimilated nor exploited.

Malmberg might argue that this is related to some of the factors *affecting* the absorptive capacity: (21)

- **Prior related knowledge:** it is easier to understand new knowledge if it is connected to something you already know
- **Organizational structure and combinative capabilities**: system-, coordination- and socialization capabilities (e.g. processes, routines and culture in an organization) affect the employees' individual capabilities
- **Management's influence on knowledge absorption:** the activities of the management influence the perception of the applicability and perception of the new knowledge

Looking at the CSD Brain wall in the light of these affecting factors it can be argued that the organizational structure or system did not support the employees in assimilating and exploiting this specific initiative. There were no processes or routines supporting the employees in interacting with the brain illustrations. As argued by an employee in the follow-up interview, no one felt responsibility over it and others were 'scared' to use it. This would be the reason behind the CSD Brain wall not being a success.

On the contrary, the activities in the department meetings were generally successful. This can also be seen in relation to Malmberg's factors that affect the absorptive capacity: In these prototypes the Management (the DM) was highly involved in the initiative and could therefore show the employees that the initiatives were important. Moreover, there was an 'organizational structure' supporting the activities in the meetings: they were part of an existing routine and the overall processes were familiar. This could be part of the reason that these prototypes were generally successful.

Staying on the topic about implementing design thinking in public sector organizations, Brinkman et al.'s taxonomy for four overall strategic purposes to support the application of design thinking is relevant. (19)

1. Building confidence in design thinking
    - Creating a safe setting, providing clarity, showing the potential, offering guidance, giving training
2. Forming a design thinking alliance
    - Building relations, creating a group identity, promoting engagement
3. Generating support for design thinking
    - Showing progress, looking for traction, producing attractive work, creating visibility, cultivating empathy, reducing liabilities
4. Enhancing compatibility between the design project and the external context
    - Seeking alignment, boundary spanning, bypassing existing structure, flying under the radar

It can be argued that the prototypes were working on 1. Building confidence in design thinking, as the prototypes in the department meetings especially aimed at creating a safe setting, showing potential and giving training. As already argued, however, the overall goal of the tests could have been made clearer.

In the light of facilitation Stickdorn et al. argue that certain steps are central when implementing service design in an organization: (17)

- Starting with small projects
- Secure management buy-in
- Raise awareness
- Build up competence

- Give room to try

It can be argued that the case study was a small project, management buy-in was secured. However, it can also be argued that 'raise awareness' could have been done more thoroughly, by raising awareness of the initiatives and the motives behind. This can be seen in the light of the follow-up interviews with the employees, where it became evident that the employees were unsure why the theme of 'collaboration' was brought up and were caught by surprise by some of the initiatives. It can therefore be argued that raising more awareness among the CSD employees would have provided a more solid foundation for the prototypes.

In the follow-up interviews it also revealed that some of the employees were rather surprised by the fact that the DM allocated time and put focus on a 'soft' theme like collaboration. The employee argued that usually deliverables and numbers were prioritized. It can therefore be argued that 'raising awareness' might be a generally good idea, however, when introducing something that *is rather opposite* to the current situation it becomes even more important to raise awareness and explain what is about to happen.

The confusion expressed by the employee can be seen in relation to Brown's argument that design thinking offers a "third way" of solving problems, which is neither only based on feelings and intuition nor only on rationality and data (10). As Brown argues: *"Nobody wants to run a business based on feeling, intuition, and inspiration, but an overreliance on the rational and the analytical can be just as dangerous. The integrated approach at the core of the design process suggests a "third way"* (10). The statement from the employee can be seen as an indication of a generally stronger focus on analysis and rationality over softer types of insights. According to Brinkman this could resemble the general mindset in public sector organizations.

Stickdorn et al. argue that facilitation and co-creation are central aspects of being a Service Designer: *"If service design is a truly co-creative activity, then facilitation must be the key tool of any practitioner"*(17). It can be argued that in order to reduce the employee's confusion and uncertainty, they could have been more involved in creating potential solutions through e.g. co-creation. However, with a strong focus on facilitation and 'creating a frame' the focus of the project can be said to have shifted more towards co-creation with the DM – seeing the employees as an 'end-user'.

Brinkman argues that generally Designers (or practitioners) are more focused on making design thinking projects in the public

sector a one-off success instead of creating lasting change (19). As previously described, the case study carried out deliberately tested prototype within existing forums – to prevent them from vanishing as soon as the testing was over. Moreover, as Stickdorn et al. argue 'management buy-in' was established, which means that the DM was highly involved and had a level of ownership in the prototypes. In this way the initiatives did not have to be 'handed over' to the DM after testing, but instead she was involved from the very beginning. The impact of the management can be supported by The Design Council, who describe *leadership* and *engagement* fundamental elements of the 'Framework for Innovation'. In this way it can be argued that in order to innovate – e.g. innovate the structures for collaboration – leadership is central, which was also shown in the case study. It can be argued that the element of *engagement* is the very core of the case study: the aim was to develop connections and build relations to enhance internal collaboration.

Skillicorn criticizes design thinking for being too focused on 'small success projects' and not impacting the larger structures in an organization (27). Seeing the case study in CSD in relation to this statement it can be argued that the scope of the project was indeed centered around a single department in a huge organization. However, the project carried out suggests a solution that is usable beyond the CSD department. It can be argued that the success components of a project can be transferred to other projects, and create new successes. As an employee stated in a follow-up interview, she saw more potential in the presentation template when pitching a solution for the management team.

In that way the scope of the project can be said to have been 'small' (seen in relation to Copenhagen Municipality) but the outcome might affect people or departments beyond the scope of this project.

Ketterman points towards design thinking being a fundamental new way of working compared to classic organizational models (29) – which is arguably also the case in CSD. In this way it can be argued that creating a design thinking mindset in a public sector workplace like CSD would require a *culture shift*. Changing a culture in an organization arguably is more comprehensive than what the time frame of this thesis allows.

8.3 The Role of the Designer

In the case study it was uncovered that there was a general lack of collaboration in the CSD department, as the PMs were lacking knowledge of each other's projects and ways of working. This stood

in contrast to the DM's description of the work in CSD – she believed that they were in fact using each other during the projects. This could be seen as a difference between *telling* someone what to do, as opposed to *helping* them to do it. This can be seen in relation to Manzini's argument that you cannot change people's behavior, but you can create conditions that create conditions that make some things more likely than others (22). Though, this statement from Manzini is to be seen in relation to the role of the 'Expert Designer'. It can be argued that Manzini's argument was proven through the case study to be correct. I, as a Designer, did not change people's behavior but I made the occurrence of internal collaboration more likely by creating initiatives that allowed it.

According to the employee in the follow-up interview, there had been previous initiatives to promote e.g. walk-and-talks. These initiatives had been forgotten or overridden, and therefore the current support for collaboration was sentences like 'just use each other throughout the process'. It can be argued that this did not make collaboration more likely – which is why I, as a Designer, formalized the 'encouragements' frames that could affect the actions of the employees. As Brown argues 'thinking like a designer' is about using insights gathered from different activities to inspire potential solutions (25). This is in fact what I did.

In continuation of the lack of collaboration, the DM stated in her interview that: the 'dream scenario' that *"If we had 48 hours a day, I think we should talk a lot more about all projects together and get many more different angles and have more loops and do a lot more user involvement"*. This indicates an understanding that more *time* was the solution to the lack of collaboration. However, it can be argued that looking at this challenge with an *explorative* mindset could reveal other solutions. Looking at Manzini's argument that the role of the 'Expert Designer' is to cultivate design activities and guide non-designers, it can be argued that there is a need for professional Designers to solve these types of challenges

This can be supported by insights from the interviews with both the PMs and DM: both stated that it is beneficial to have a 'design resource' on the team. The PMs highlighted that it is needed to have a facilitator for design activities, and the DM emphasized that in order to prioritize design activities it is necessary to have an employee whose focus is on the design activities. Without a Designer on the team design activities will not be prioritized as they do not come natural to the rest of the group. This can be supported by the Expert Designer's argument that 80% of the work as a Service Designer in the municipality is relational work: facilitating people to work together.

Simon emphasizes the iterative ways of working as a Designer (25). As previously mentioned, he states that there should be 'a whole nested series of test cycles'. Seen in relation to the case study it can be argued that each prototype was only tested once, and further adjustments and more tests would improve the solution. However, the solution presented, is a *suggested* solution, which would indicate that there is room for refinement. Additionally, Simon argues that the role of the Designer is to utilize creativity, problem-solving, and iteration to arrive at a 'satisfactory' solution. In the light of the testing and the feedback from the employees it can be argued that the suggested solution is 'satisfactory'.

Finally, Cross argues that the role of the Designer is to recognize patterns(23). It can be argued that I, as a Designer, conducted research and interviews that showed a pattern: a lack of internal collaboration. In the interviews with the PM's, it was evident for many that they wanted to know more about each other's work. However, the 'pattern syntheses' had not been made previously. Therefore, it can be argued that the case study supports Cross' argument about the Designer's role.

8.4 Personal Reflections

Working on the case study has taught me a lot about working as a Designer. Firstly, it was a big learning experience for me to work with a 'real case' and 'real people'. Studying to become a Designer often includes working on 'made-up' cases and designing *hypothetic* solutions that are not tested thoroughly. However, working with a company partner offered the chance to prototype and test solutions and get feedback from the actual users.

The fact that I did an internship in CSD before starting my thesis, allowed me to spend a lot of time 'empathizing' with the users and getting to know the system. This is an unusual benefit, but due to the complex system and complex service systems in CSD, I see the internship as highly valuable for the thesis process. Furthermore, I saw my role as an 'In-house Design Consultant' as I had daily access to the office as well as the employees in CSD. This gave me an initial understanding of what could be waiting after I finish my thesis, which is also a valuable learning point.

However, working with users I knew personally also gave a new perspective to describing the collected insights: making sure that I describe their input correctly. Previously I have worked with users "from a distance" and people who would not read the final

outcome. However, in this project it has been important to me to be as true as possible to the people involved as I also have a personal relation to many of them. This was a valuable learning point for me, as I believe that attentiveness to the users should always be an important factor in a project. Being part of CSD myself, furthermore, meant that I can be considered a user of the solution. It can therefore be argued that the solution is characterized by an insider-perspective. This can be said to have provided yet 'another hat' as both a Designer, a facilitator, and a user. In this way the project will not be neglected when I hand in the thesis, but some initiatives will live on – I will get back to this in the future perspectives.

As previously mentioned, the support and interest from the DM made a big difference for the project overall. Getting space and opportunity to test things and get feedback from the users allowed me to collect a lot of very valuable knowledge. This was due to the DMs overall interest in the project.

Generally, it can be argued that there is a current tendency in CSD of wanting to create new professional networks and rethinking the 'project wall' as previously mentioned. In that way I believe that my thesis project 'fits the current work', which could also be the reason for the DM's willingness to get involved.

Nevertheless, it can be argued that there – at times – was a conflict of interest, as the university supervisor and the DM in CSD had two different views on the project. Balancing these 'conflicts' and opposing advice was an interesting learning for me as a Designer. I had to argue my decisions.

Although I could be described as a Design Consultant, I was continuously able to get feedback and share thoughts with the Service Designer in CSD, my thesis mentor. This taught me the importance of being more people with the same profession, in order to share insights through the process. I believe this makes a design project much stronger.

It can be argued that the solution is not only usable in CSD, or in public sector organizations. The addressed challenge concerns lack of collaboration which can arguably be an issue in many types of organizations which do not work with a collaborative design thinking mindset. Hence, the solution could create value in other departments in Copenhagen Municipality, as well as other types of organizations.

9 Conclusion and Future Perspectives

This section will provide conclusions on the topics discussed in chapter 8. Additionally, the limitations and future perspectives of the case study will be presented. Finally, the research question will be answered: Which aspects of design thinking are relevant in the public sector?

Overall, it can be concluded that the case study showed that the framework of design thinking does not match the process for projects in Copenhagen Municipality. However, literature explains that there is more to design thinking than the framework, which is why the design thinking *mindset* was explored. A commonly described feature of the design thinking mindset is *collaboration*. In respect to this, the case study in CSD uncovered that there was a general lack of collaboration in the department and the employees generally did not utilize each other's knowledge in their projects. This was partly due to the fact that it was an individual responsibility for each employee to collaborate with their colleagues.

I, a Design resource, was brought into CSD through the case study which is one way of working with the design capability: a professional guiding the activities. However, the activities were not facilitated by a Designer, as the DM played a key role in the prototyping and the solution is furthermore aimed at management level. Literature shows that the actions of the management in an organization influence the absorption of new knowledge for the employees. Additionally, it can also be concluded that facilitation holds power when introducing new knowledge, and an important aspect to remember is clear communication about the activities and why they are taking place.

The management perspective allowed the creation of 'formalized frames' for collaboration. The proposed solution suggests three specified initiatives that can create a frame for collaboration in a work department: giving time for collaboration, giving space for collaboration, and suggesting a template to talking about projects in a structured way.

Given the fact that the solution is suggesting activities initiated by *the management*, it can be argued that activities are not dependent on the Designer. Instead, *the Manager* will be able to establish the initiatives, which will therefore be incorporated into the existing system, and not be a one-off success.

Literature describes that the role of a Designer is to 'guide' and make systems that make certain activities more likely. Therefore, different initiatives nurturing the internal collaboration were prototyped and tested, and the reaction to these showed an overall positive attitude towards a more formalized frame for internal collaboration. Literature furthermore explains and the role of the Designer is to recognize patterns and turn insights into solutions, which was supported through the case study. It can be concluded that a Designer can suggest possible solutions and create conditions that make certain actions more likely.

It can be concluded that the nature of the solution aiming to promote internal collaboration in a workplace can be useful in many other organizations not working with a collaborative design thinking mindset.

In respect to the research question posted in the opening of this thesis: Which aspects of design thinking are relevant in the public sector? It can be argued that although the design thinking framework is not compatible with the way of working in Copenhagen Municipality, the *mindset* behind design thinking can inspire new ways of thinking in the public sector. Through the case study it was shown that there was a general lack of internal collaboration in CSD, and therefore the collaborative principles of the design thinking mindset were highly relevant. It can therefore be argued that working towards enhancing the internal collaboration can be seen as working towards a stronger design thinking mindset in CSD.

Returning to the research question posted in the very beginning of the thesis: *Which aspects of design thinking are relevant for non-designers in the public sector?* It has been shown that the design thinking *framework* is fundamentally different from the framework used in the public sector. On the contrary, the design thinking *mindset* is arguably highly relevant in public sector organizations, as it provides principles for working with innovation. As shown in the case study, introducing internal collaborative initiatives can promote a design thinking mindset in non-design public sector organizations, which ultimately can be argued to support the employees in tackling increasingly complex challenges by utilizing each other's knowledge.

9.1 Aalborg University Learning Objectives

In regard to the learning goals stated by Aalborg University it can be stated that I have worked with an appropriate methodological approach, real about and explored an used design theories and methods and applied them on a case study. Independently I have identified a central problem, which I have analyzed and developed a possible solution for – while taken the setup in Copenhagen Municipality into account.

I have managed to prototype and test solutions in a 'real' work environment which was arguably both complex and unpredictable at times. In this way I succeeded in in cooperating with my company partner in a professional responsible – and creative – way.

My personal learning goals support the ones from AAU. As a conclusion to them, I have successfully managed to involve relevant stakeholders.

9.1.1 Personal Learning Objectives

In addition to the learning objectives defined by Aalborg University, I have defined the following personal learning objectives: I have been able to test design solutions in a non-design environment which has taught me a lot. Generally, I have managed a 4-month design process on my own, and overall met my own deadlines.

9.2 Limitations and Future Perspectives

As with many projects, the time frame can be said to have been a limiting factor. Given that the case study was carried out in a real work environment, time is also a critical factor, as things get postponed for various reasons. This was also the case in the work with the case study carried out in this thesis.

Another limitation of the project was the number of people involved. It can be argued that it is hard to generalize insights from 23 people in a department – and even more so with only 14 respondents on the survey. As previously argued, the 'quantitative' data was therefore processed as 'qualitative' input. If the project had been carried as a group, it would have allowed dividing tasks between group members and reaching out to more people – and potentially collected data from a broader target group.

It can be argued that the overall frame for the project was a limitation, as it is challenging – and not possible within the time frame of a thesis – to change bigger systems in a big organization like Copenhagen Municipality. Instead, the focus was on a smaller department, which allowed actual testing of prototypes. This however meant, that the changes can be seen as rather small and subtle.

As previously mentioned, the design thinking mindset consists of many other features besides collaboration. Given that this thesis focuses on the *collaborative* aspect, a future study could dive into another aspect of the design thinking mindset in public sector organizations. This would potentially give a more nuanced impression.

As it has been explained in the personal reflections, there is a general interest in CSD in rethinking internal 'networks' and professional forums. Therefore, the work carried out in this thesis can be seen as a beginning to changing other collaboration-based

activities. Furthermore, the increasing complexity in IT-based solutions calls for an overview of systems – as well as an overview of IT-solutions the different projects affect. Hence, there is currently a project in progress with the aim of visualizing the 'overall connections of things'. These are some of the future perspectives working towards more cohesion inside CSD, which are highly related to the topic of this thesis.

Although the thesis is written and handed in, the work in CSD will continue. On June 19th 2024, a 'CSD Day' will take place, and two hours have been allocated to summing up on the tests from the case study. On this day, the employees will get a chance to discuss their impressions of the new initiatives and it will be debated which ones should be kept as part of the daily work in CSD. As it was pointed out in the learnings from the prototypes, it might be easier to say what *your colleague* is good at, than what *you* are good at. An exercise about this could potentially be part of the activities on the agenda. I will work on this in the coming weeks and present new knowledge about it in the oral defense of the thesis.

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11 Appendix

11.1 Appendix 1: Interview guide for Expert Designers in Copenhagen Municipality

Dig

1. Beskriv din stilling
2. Hvad fylder mest i dit arbejde som designer i kommunen?
3. Hvad er din opfattelse af at arbejde som designer i kommunen?

Design thinking i kommunen

4. Hvordan bruger du DT i dit arbejde i kk?
5. Arbejder du med et "DT framework" fx. The double diamond? - hvordan?
6. Hvad har du gjort for at få DT til at passe ind i en ikke-design sammenhæng?
7. Hvornår (i hvilken del af) projektarbejdet i KK, ser du, at man især kan tilføre ny værdi ved at arbejde med designmetoder
8. Hvad er svært ved at arbejde med designmetoder og processer i kommunal sammenhæng?
9. Hvordan sikrer du, at du fortsat 'kreativt' eller med et design mindset i en politisk styret organisation?

Konkrete værktøjer

10. Hvilke designmetoder/værktøjer har du god erfaring med at bruge i KK-sammenhæng? Og hvorfor?
11. Hvilke designmetoder har du forsøgt at bruge i kommunen, men ikke opnået det, du håbede?
12. Hvordan arbejder du med user-centered design i kommunen?
13. Hvad er vigtigt i arbejdet med stakeholder management i kommunen?
14. Vil du fortælle om dine erfaringer med co-creation i kommunen? (kan læse på LinkedIn)

Kollegaerne: Ikke-designere og DT/designmetoder

15. Arbejder dine ikke-design kollegaer med DT?
16. Hvordan reagerer de på det? - har det været udfordrende? Hvordan? - hvad har du/I gjort for at overkomme den mulige skepsis?
17. Har du/I gjort noget for at tilpasse DT til ikke-designere?

Generelt på tværs

18. Du har arbejdet flere forskellige steder i KK - hvad ser du af fællesnævnere for designproces/ servicedesign på tværs?
19. Good segment, bag segment: et eksempel på projekt, hvor DT var den rigtige og givende tilgang - og et projekt, hvor det måske ikke passer til?

Må jeg vende tilbage til dig, hvis jeg støder på flere ting, som du måske kan hjælpe med?

11.2 Appendix 2: Interview guide for Project Managers in CSD

Interviews, BSU

- Optage (ikke skrive ned mens vi taler sammen)
- Consent form

Dig:

1. Beskriv din rolle I BSU?
2. Hvilke typer projekter beskæftiger du dig med i BSU?

Processer/projekter:

3. Hvordan starter et projekt i BSU?
4. Hvornår bliver du inddraget i et projekt?
5. Hvad er typisk målet med et projekt i BSU?
6. Hvor lang tid tager et projekt typisk?
7. Når du arbejder med projekter, hvilke trin består et projekt typisk af? Hvilke faser ser du?
   TEGNE: Du kan tænke på et projekt, du tidligere har lavet. Hvordan ville du tegne processen for det projekt?
8. Hvad fungerede godt ved det projekt? Hvad fungerede mindre godt?
9. Hvilken fase vejer tungest i arbejdet i BSU?
10. Hvilken del af arbejdet med et projekt, kan du bedst lide at beskæftige dig med?

Modeller og Design Thinking

11. Arbejder du typisk ud fra en særlig model i dine projekter?
12. Kender du til Design Thinking?
    → Hvordan vil du beskrive det?
13. Arbejder du med Design Thinking?
    → Hvordan? Hvordan gør du ikke?
14. Hvilke designmetoder kender du til?
    → Gør du brug af dem i dit arbejde med projekter i BSU? Hvis ja, hvordan?
15. Kender du til the Double Diamond?
    → Hvordan vil du beskrive hvad det er? Hvad den kan?
16. Arbejder du med the Double Diamond? Hvis ja, hvordan?
    TEGNE: Hvis vi kigger tilbage på det projekt, du beskrev tidligere (da du tegnede processen) i lyset af the Double Diamond, hvilke ting, ville du mene, at du gjorde i hver fase af projektet?

Opsummerende ud fra de to ting, der er tegnet:

Hvis vi kigger på de processer, du arbejder med i BSU:

17. Er der en fase, du kunne ønske, du brugte mere tid på? Hvis ja, hvilken og hvorfor?
18. Er der noget, du synes mangler i projektarbejdet i BSU?

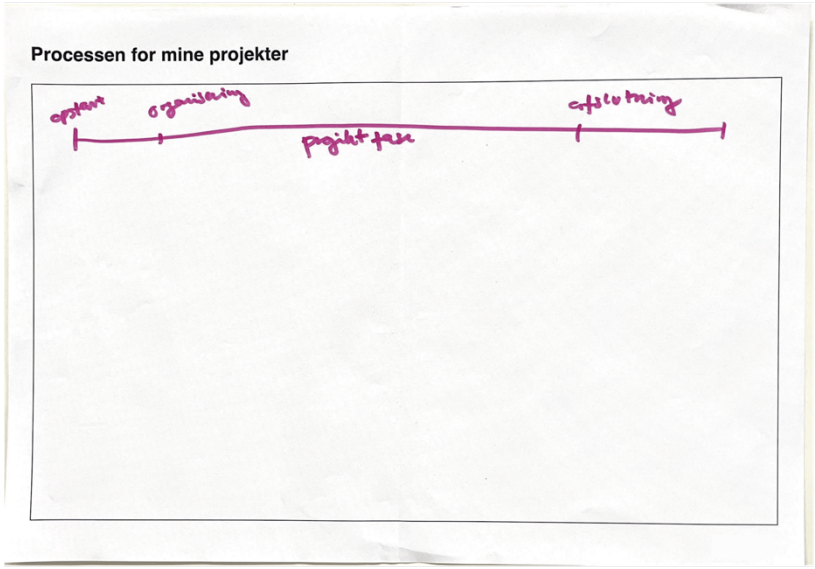
Afsluttende: Må jeg kontakte dig igen om deltagelse i mit specialeprojekt, når jeg er nået længere i processen?

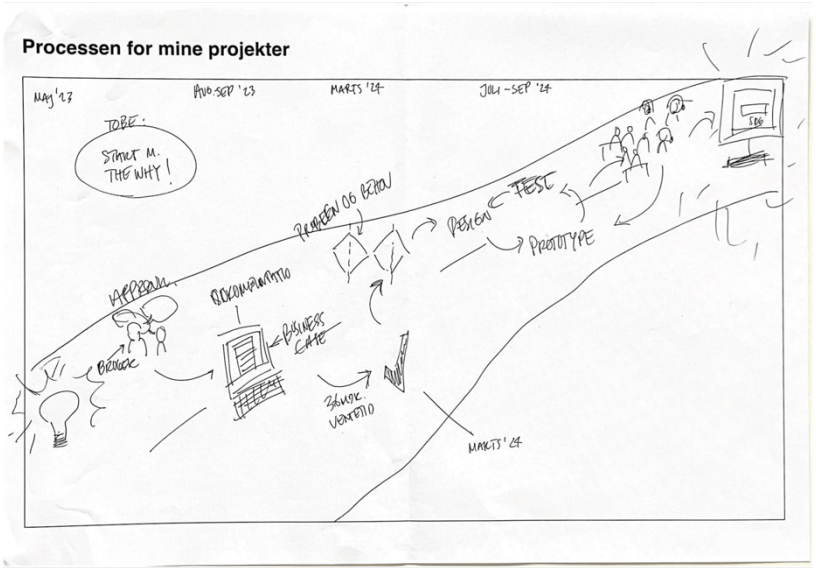
11.3 Appendix 3: Transcriptions of interview with PMs

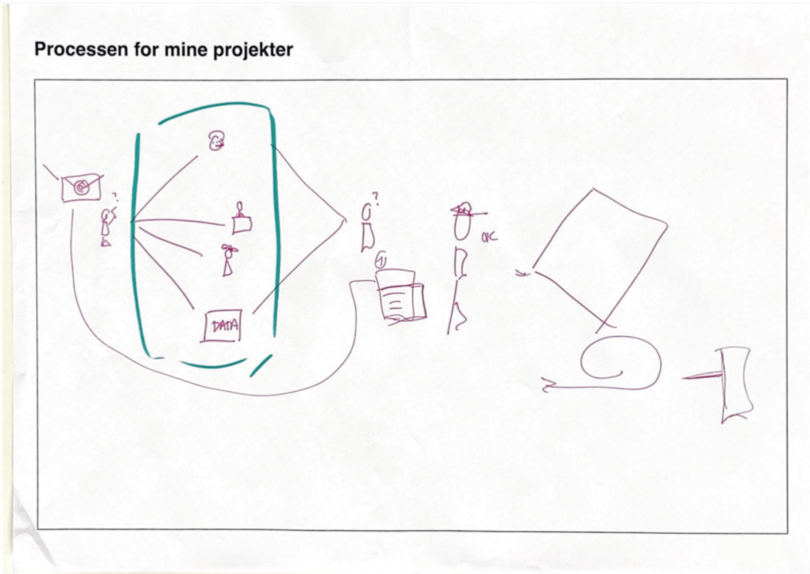
Due to the vastness of the transcriptions, they can be accessed in an online folder:

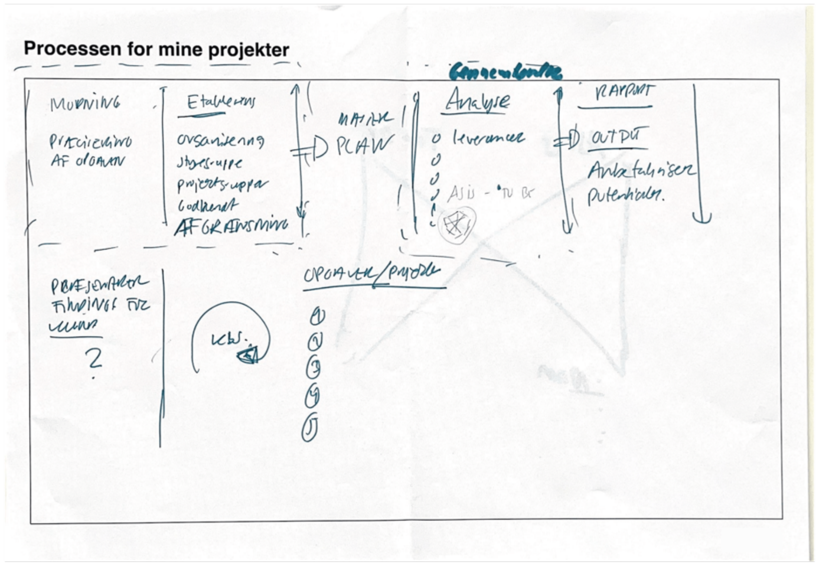
https://drive.google.com/drive/folders/1W-ohwStQ4iFUZD_5ZLjWfRg4W4h3NDX4?usp=share_link

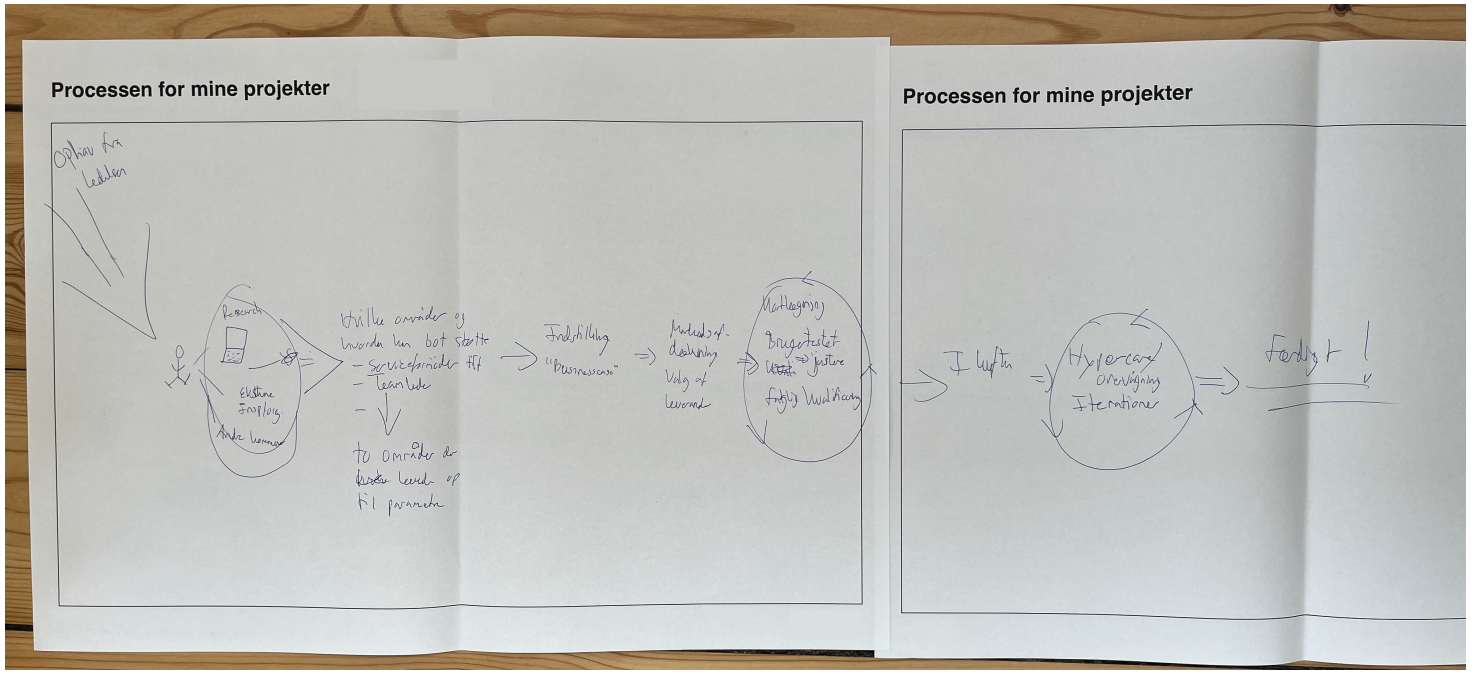
11.4 Appendix 4: “My process” drawings from PMs

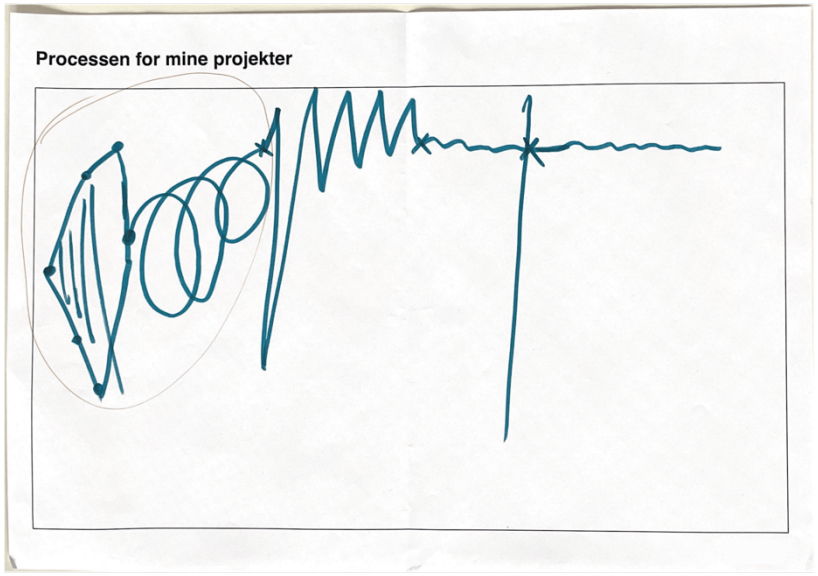


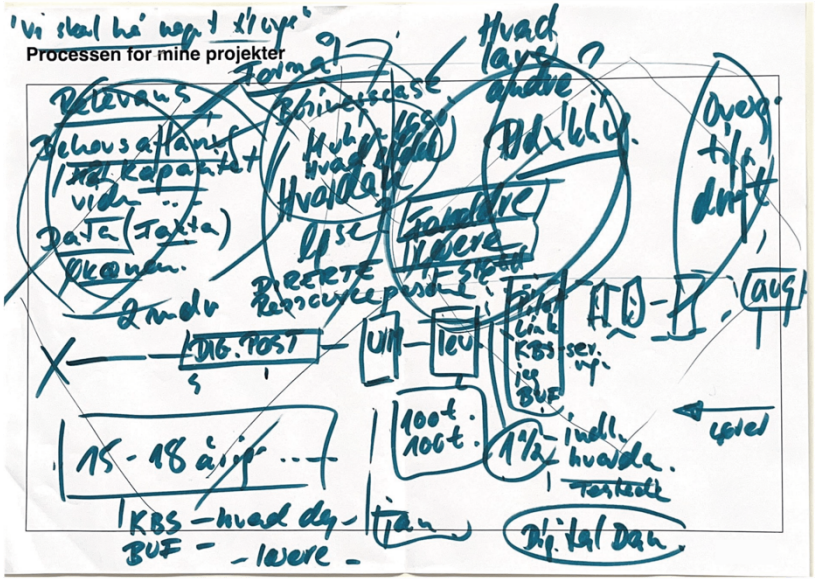



Processen for mine projekter
DATA

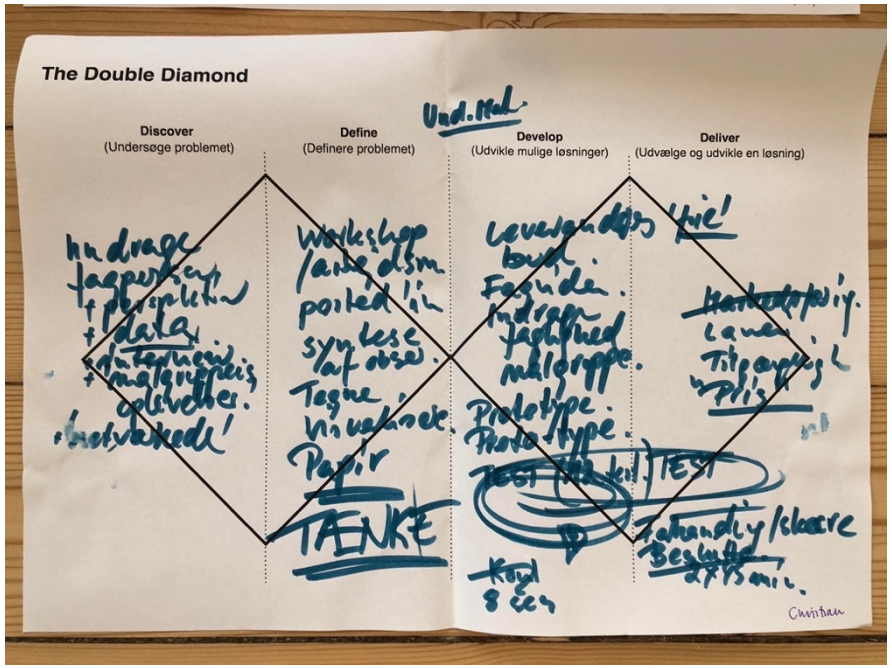

Processen for mine projekter
PLAN
Analyse
OUTPUT

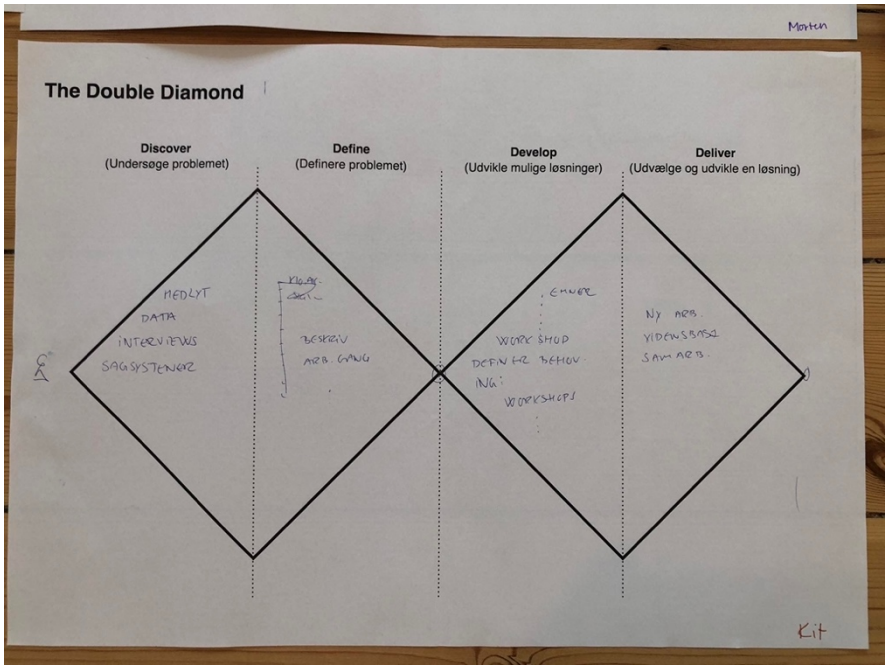

Processen for mine projekter
Processen for mine projekter

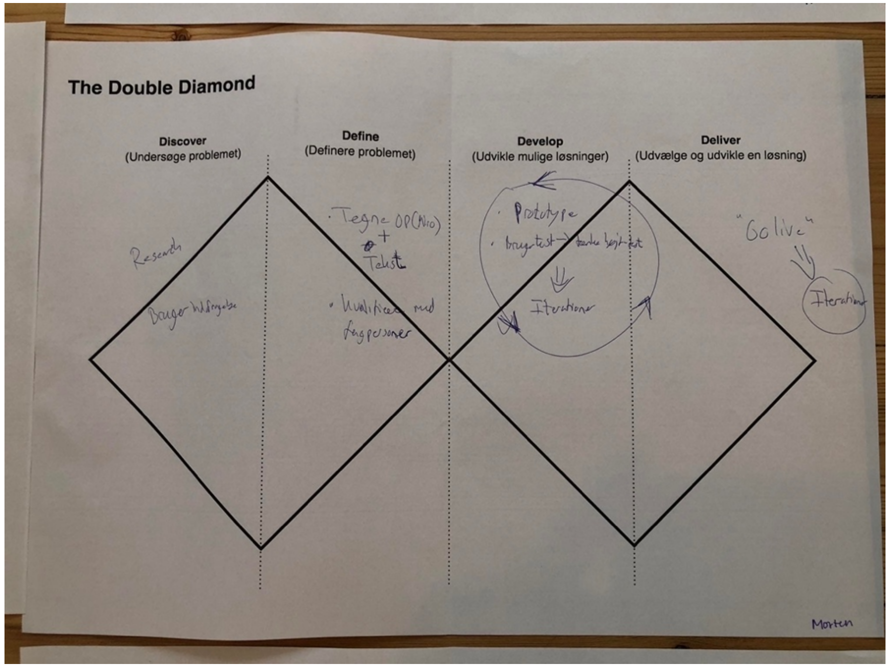

Processen for mine projekter

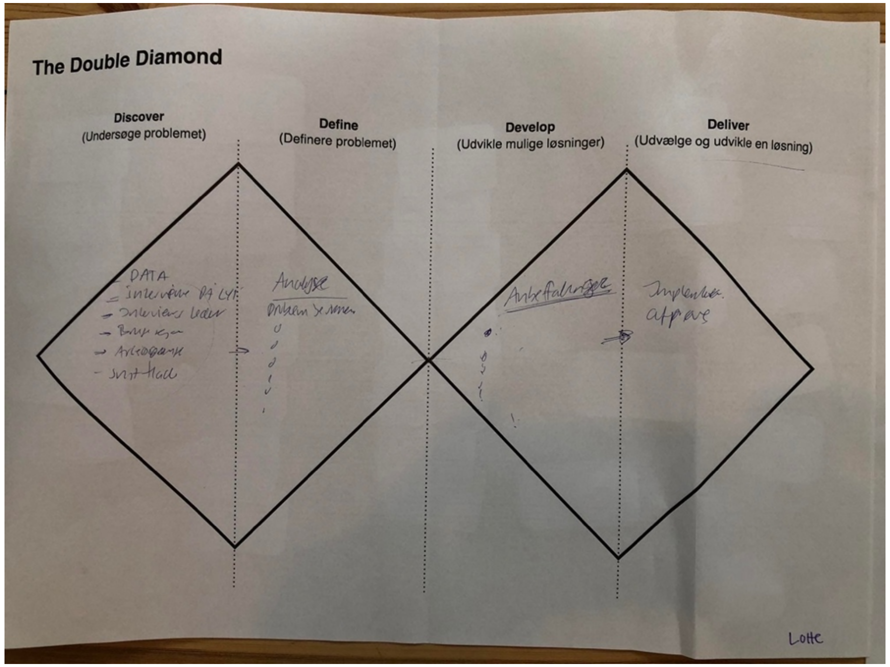

Processen for mine projekter

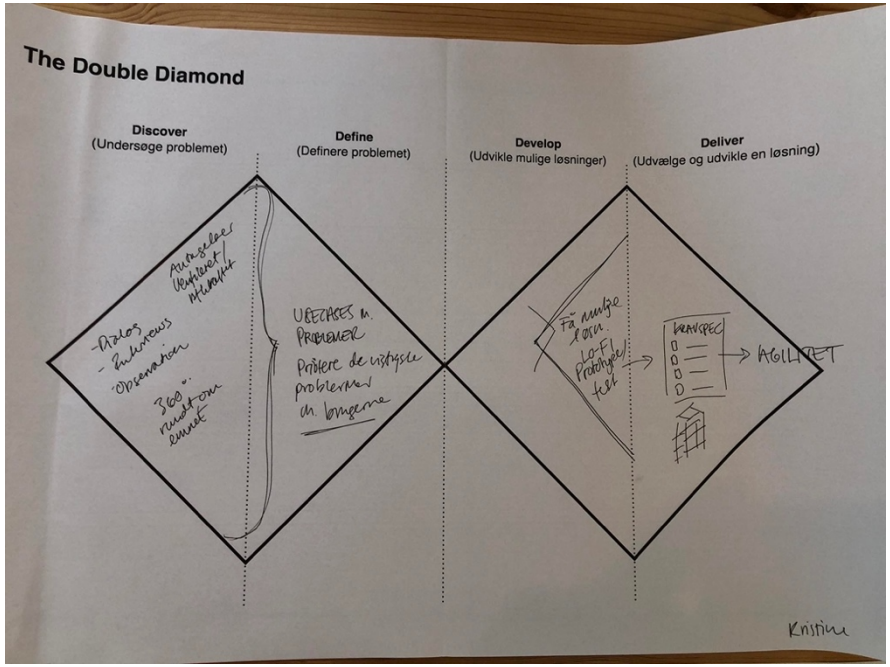
11.5 Appendix 5: Double Diamond drawings from PMs

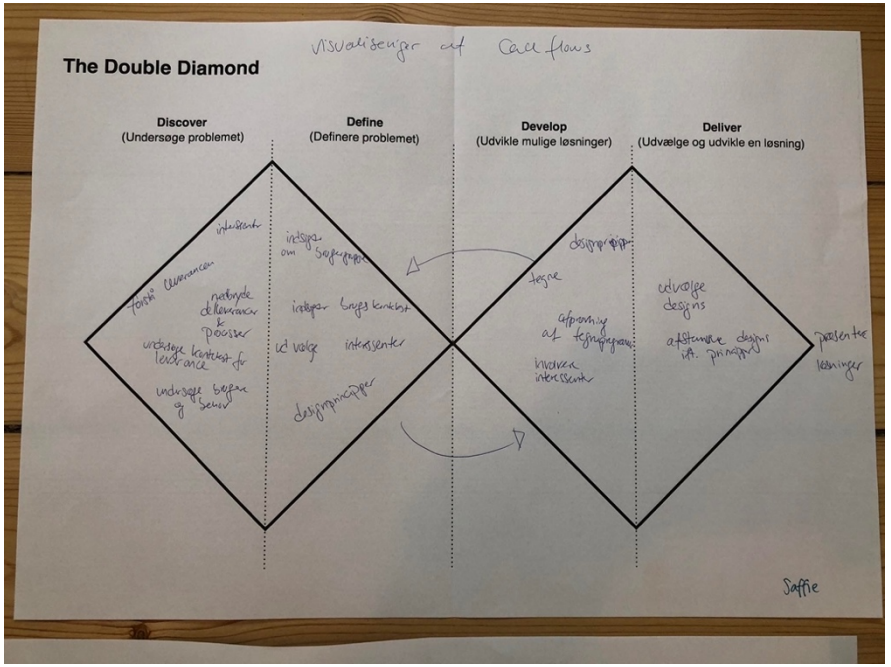





The Double Diamond
Discover
(Undersøge problemet)
Define
(Definere problemet)
Develop
(Udvikle mulige løsninger)
Deliver
(Udvælge og udvikle en løsning)
Prototype
"Go live"
Morten


The Double Diamond
Discover
(Undersøge problemet)
Define
(Definere problemet)
Develop
(Udvikle mulige løsninger)
Deliver
(Udvælge og udvikle en løsning)
DATA
Analyse
Lotte


The Double Diamond
Discover
(Undersøge problemet)
Define
(Definere problemet)
Develop
(Udvikle mulige løsninger)
Deliver
(Udvælge og udvikle en løsning)
Kristina


visualisering af Case flows
The Double Diamond
Discover
(Undersøge problemet)
Define
(Definere problemet)
Develop
(Udvikle mulige løsninger)
Deliver
(Udvælge og udvikle en løsning)
Saffie

11.6 Appendix 6: Interview guide for Dept. Manager in CSD

Interview, Karen

- Optage (ikke skrive ned mens vi taler sammen + Consent form

Dig:

1. Beskriv din rolle i BSU

BSU:

2. Hvad er BSU?
3. Hvad er formålet med BSU's arbejde?
4. Hvilke typer projekter arbejdes der med i BSU?
5. Hvilke interessenter kan være/ er typisk involveret i de projekter, der arbejdes med i BSU?

Processen for projekter i BSU:

6. Hvordan starter projekter i BSU? Hvor kommer de fra?
7. Hvad sker der INDEN en BSU'ere bliver involveret i et projekt?
   - Hvordan afdækkes behovet for et projekt?
8. Hvordan vil du beskrive de forskellige faser i et projekt i BSU?
   TEGNE: processen for opstart af et projekt i BSU
9. Er der en fase, du kunne ønske dig, at man gik mere i dybden med i BSU? Eller i KBS generelt måske?

Design/ metoder:

10. Kender du til Design Thinking?
    → Hvordan vil du beskrive det?
11. Arbejder man med Design Thinking i BSU?
    → Hvordan? Hvordan gør du ikke?
    HENVIS EVT. TIL STILLINGSOPSLAG
12. Hvilke designmetoder kender du til?
    → Gør du brug af dem i dit arbejde med projekter i BSU? Hvis ja, hvordan?
13. Kender du til the Double Diamond?
    → Hvordan vil du beskrive hvad det er? Hvad den kan?

Afsluttende:

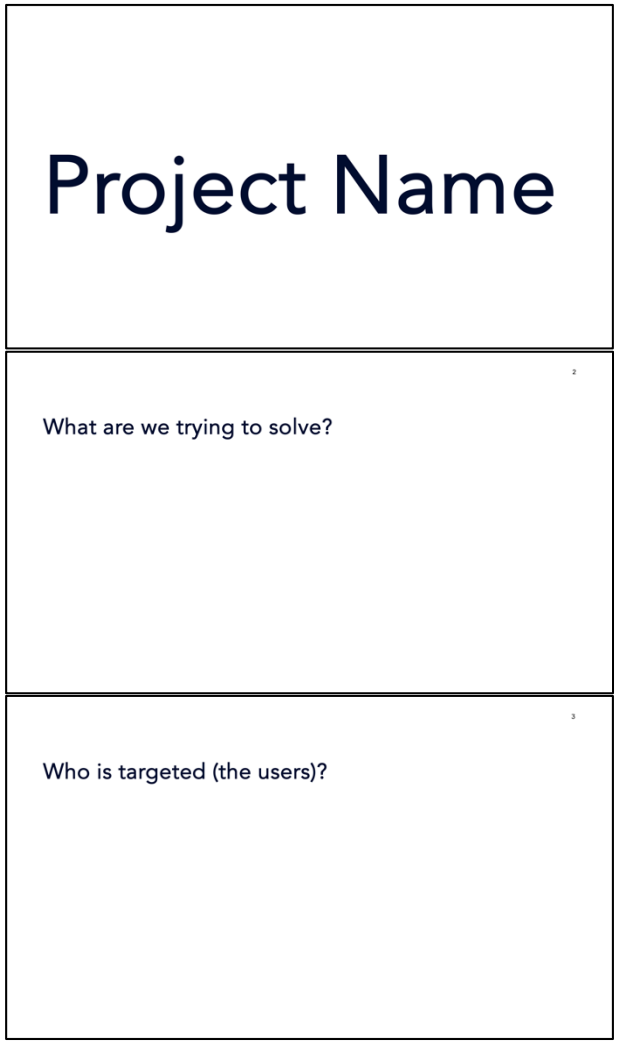
1. Er der noget, du synes mangler i projektarbejdet i BSU?
2. Må jeg kontakte dig igen om deltagelse i mit specialeprojekt, når jeg er nået længere i processen?

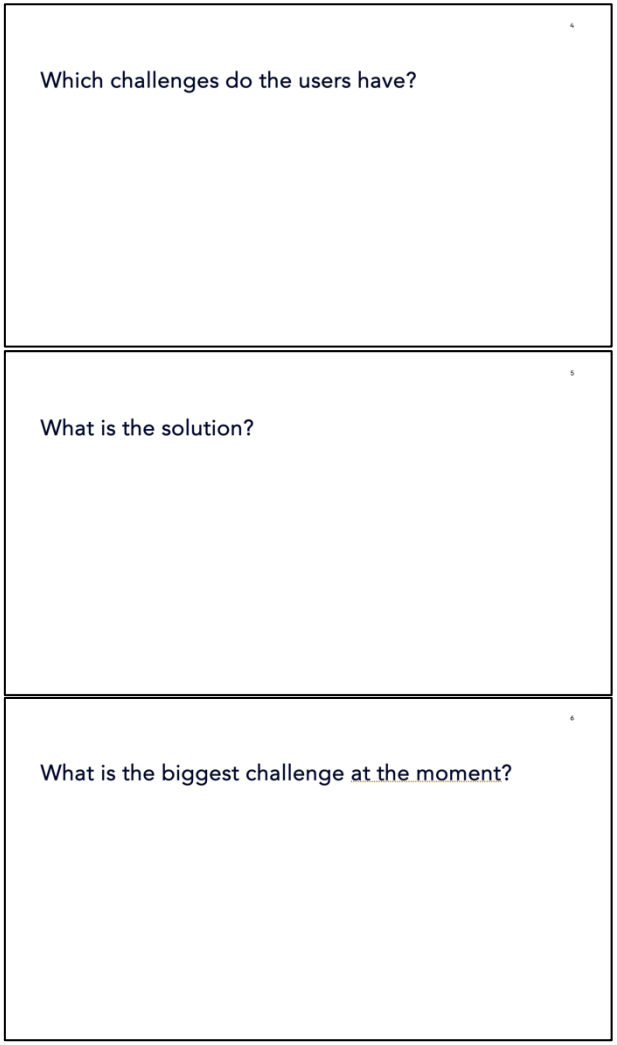
11.7 Appendix 7: Survey answers

Due to the vastness of the transcriptions, they can be accessed in an online folder:

https://drive.google.com/drive/folders/1W-ohwStQ4iFUZD_5ZLjWfRg4W4h3NDX4?usp=share_link

11.8 Appendix 8: PowerPoint template for presentations





11.9 Appendix 9: Follow-up interview: Interview guide and notes

The notes from the interviews can be seen in an online folder:

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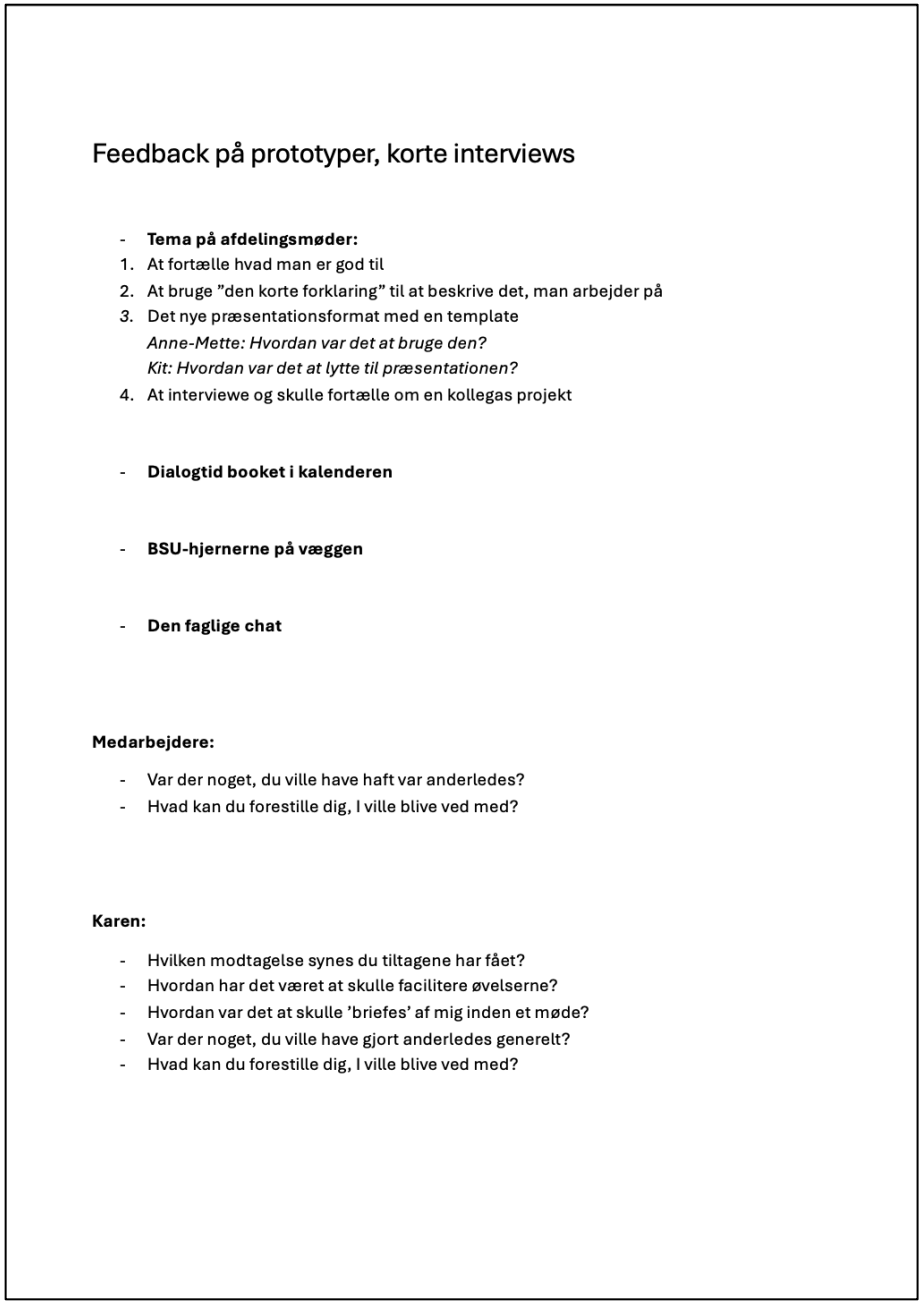


Feedback på prototyper, korte interviews

- **Tema på afdelingsmøder:**

1. At fortælle hvad man er god til
2. At bruge "den korte forklaring" til at beskrive det, man arbejder på
3. Det nye præsentationsformat med en template
   Anne-Mette: Hvordan var det at bruge den?
   Kit: Hvordan var det at lytte til præsentationen?
4. At interviewe og skulle fortælle om en kollegas projekt

- **Dialogtid booket i kalenderen**

- **BSU-hjernerne på væggen**

- **Den faglige chat**

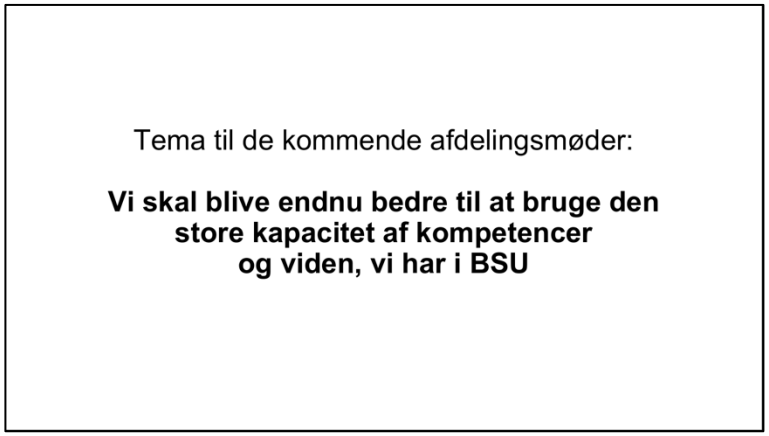
Medarbejdere:

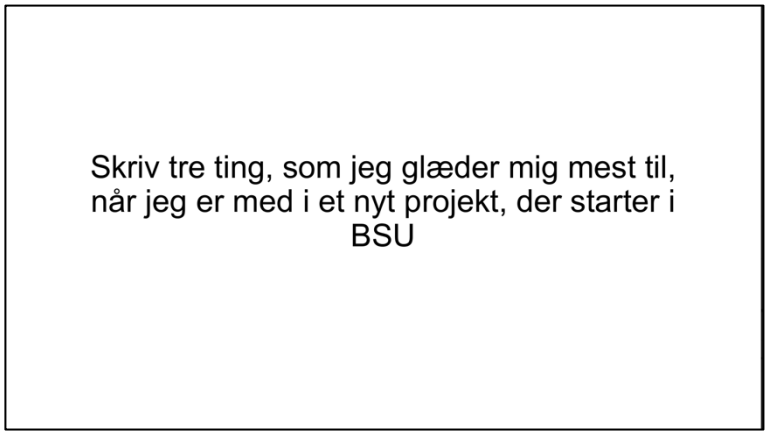
- Var der noget, du ville have haft var anderledes?
- Hvad kan du forestille dig, I ville blive ved med?

Karen:

- Hvilken modtagelse synes du tiltagene har fået?
- Hvordan har det været at skulle facilitere øvelserne?
- Hvordan var det at skulle 'briefes' af mig inden et møde?
- Var der noget, du ville have gjort anderledes generelt?
- Hvad kan du forestille dig, I ville blive ved med?

11.10 Appendix 10: Pres. from prototype day 1 in dept. meeting





11.11 Appendix 11: Pres. from prototype day 2 in dept. meeting

11.12 Appendix 12: Pres. from prototype day 3 in dept. meeting

Tema:
Vi skal blive endnu bedre til at bruge den store kapacitet af kompetencer og viden, vi har i BSU

Vi skal forsøge at blive klogere på hinandens arbejde

Udfyld en "den korte forklaring" om det, du arbejder på i øjeblikket

Brug 2 minutter på at læse din forklaring højt for din sidemakker

Præsentationer til kommende afdelingsmøder:
"Ugens korte præsentation"

- To BSU'ere til hvert afdelingsmøde
- Laver præsentation, der svarer fra "den korte forklaring"
- Max 5 minutter
- Følg template ☺

"Dialogtid"

30 minutter om ugen booket i kalenderen

11.13 Appendix 13: Pres. from prototype day 4 in dept. meeting

Tema:
Vi skal blive endnu bedre til at bruge den store kapacitet af kompetencer og viden, vi har i BSU

I dag har vi testet det nye præsentationsformat!

"BSU" = **B**are **S**pørg **U**d

Stedet for faglige spørgsmål
Inden næste møde: Stil et spørgsmål i den den faglige chat på Teams

Brug "**Den korte forklaring**" med en kollega

Inden næste møde: brug rammen for 'den korte forklaring' til at blive klogere på en kollegas arbejde

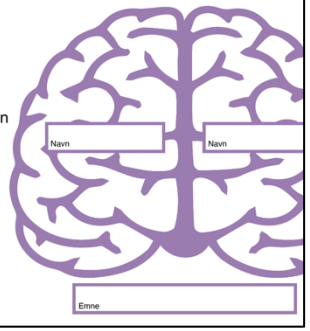
Vælg selv hvem!

Sætningerne skal læses højt på næste afdelingsmøde ☺

En opfølgning på BSU-hjernen

- Skal vise når vi spørger hinanden til råds i vores projekter
- Vise hvor mange ting, vi kan hjælpe hinanden med
- Ikke til at vise hvad dit projekt handler om

Fx: Thomas og Marie taler om grafiske opstillinger til PowerBI-rapporter



11.14 Appendix 14: Pres. from prototype day 5 in dept. meeting

Tema:
Vi skal blive endnu bedre til at bruge den store kapacitet af kompetencer og viden, vi har i BSU

"BSU" = **B**are **S**pørg **U**d

Hvordan har det været at bruge den nye faglige chat?

"Den korte forklaring"

Fortæl om din kollegas projekt – læs højt ☺

11.15 Appendix 15: Proposed solution

Collaborative Design Thinking in the Public Sector

A framework to promote internal collaboration

"Design thinking" and "the public sector" are not often associated with one another. However, the principles of design thinking are highly valuable in the public sector, as they can unlock shared creative potential and drive innovation.

A key aspect of the design hinking mindset is collaboration. However, in the public sector, internal collaboration among colleagues often gets deprioritized amid hectic schedules. Implementing initiatives that foster collaboration in public sector workplaces can unlock employees' knowledge, cultivate a team-oriented culture, and serve as a foundational step toward integrating designtThinking principles in the public sector.

The presented material includes:
- Creating **space** for collaboration and knowledge sharing
- Creating **time** for collanboration and knowledge sharing
- A **framework** for sharing what you are working on

To promote collaboration in the workplace, management must establish the necessary frameworks. This material is designed to help Managers implement initiatives that formalize internal collaboration. It is important to introduce these initiatives gradually, based on employees' openness to new ideas, allowing them time to fully explore and adapt to each initiative before moving on to the next.

Contents:

Setting the frame

It is important to set the frame for future collaborative activities for the employees as well as give them an understanding of why the collaborative initiatives are put in place.

Therefore it is recommended to make a short presentation of the new focus on internal collaboration in the department.

Introducing the theme can be done in a department meeting, where the following should be answered:

- Why is there a need for more initiatives on collaboration?
- What initiatives will be made?
- What is the overall time frame for these new initiatives?

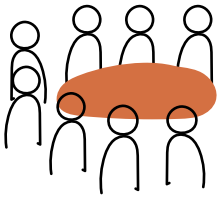
This introduction arguably supports the employees willingness to participate to the presented initiatives.

A space for collaboration

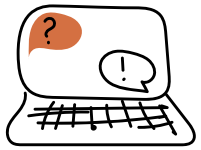
Collaboration can be difficult to establish if there are no set forums for it. Therefore, it is important to set up spaces for the employees with the purpose of sharing and getting help from each other.

This can be done both in online forums (e.g. Microsoft Teams) or in physical meetings. The online channel offers flexibility as employees can ask an answer question when needed, whereas the schedueld meeting offers a shared space with everyone's current attention.

Using existing forums can be beneficial. Using unknown platforms or software can make the collaboration seem unfamiliar and hard to access. However, if the team already uses e.g. Microsoft Teams, a new 'Professional Questions and Input Chat' can be added. In the physical meetings, there can be allocated time to share knowledge - within a frame that already exists. Sharing knowledge in physical meetings can be seen in relation to the third suggestion about a shared presentation format (see page 4).



1. Schedule team meetings (if they do not exist already)
2. Allocate time in each team meeting for sharing what the employees are currently working on.
3. Use the suggested framework (p. 6) in this material, to support the employees in presenting their projects.



1. Create a new channel, called e.g. "Professional Questions and Inputs"
2. Invite the employees to the forum
3. Send out ground rules for the chat:
   - How often do you, as a Manager, expect your employees to check it?
   - How fast should one expect to get an answer to their question?

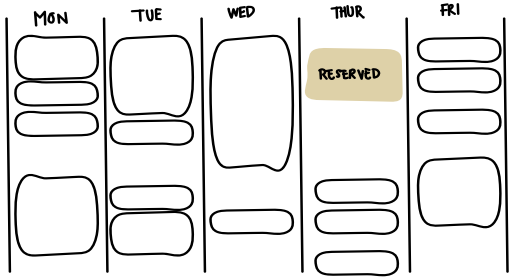
Time for collaboration

Reserving time for collaboration is essential for ensuring collaboration. Leaving it up to the individual employee will include a high risk of the employees forgetting it or neglecting it.

Reserving time in your employees calendars for collaboration as a Manager, sends the signal that it is important that the employees use each others knowledge.

Creating time for knowledge sharing can be done by simply booking a reserved time slot in all of the employees calendars and encourage them to e.g. do a walk and talk, have a coffee with a colleague and talk about their project etc.

Reserving time in the calendar willl ensure that it is no longer an excuse to say 'I do not have time for collaboration'.



1. Introduce the concept of reserving time for collaboration in a meeting
2. Invite all employees in the department to an event in your calendar system (e.g. Outlook)

A framework for presenting a project

Presenting what you are working on can be a challenge, and it is easy to get lost in details which makes it hard for the audience to understand the core of the project.
Therefore, a presentation template can guide the employees in answering essential questions about their project. A shared presentation templace furthermore gives all colleagues a basic understanding of what will be presented.

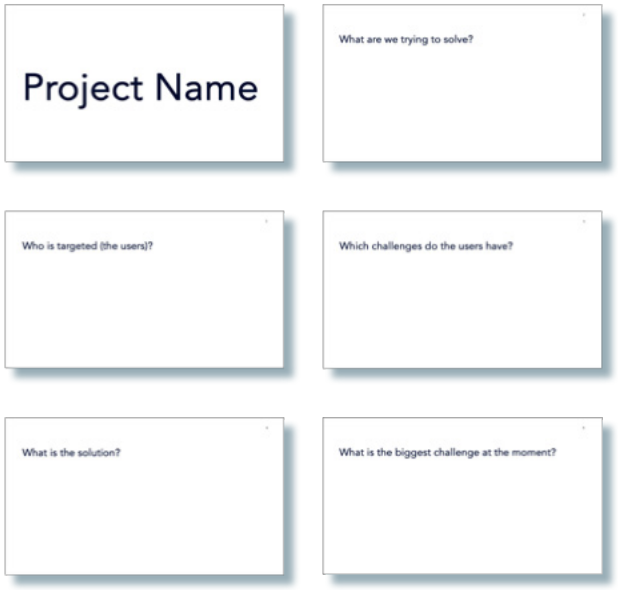
To understand what someone is working on it is relevant to know:

- What is it about?
- Who is the user?
- What is the user's current challenge?
- What is the solution?
- What are your current challenges?

The final question adresses the current challenges for the employee working on the project. Alllowing space for for sharing challenges can be seen as an invite for collaboration: if you know what someone is struggling with, it is easier to offer your help.

A presentation template can be found in the following page (p.6).

Presentation template



11.16 Appendix 16: Pitch for proposed solution

The Pitch video, as well as slide deck presented in video can be accessed in an online folder:

https://drive.google.com/drive/folders/1W-ohwStQ4iFUZD_5ZLjWfRg4W4h3NDX4?usp=share_link